BOOK OF ABSTRACTS

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PLENARY LECTURES

Re-thinking productivity: A constructional perspective

Martin Hilpert

(Université de Neuchâtel)

This talk will explore what it means to re-think morphological productivity from the perspective of Construction Grammar. In recent years, Construction Grammar (Goldberg 1995, 2006) has established itself as a new theoretical paradigm. A basic assumption of this approach is that knowledge of language can be modeled as a network of symbolic units that vary in complexity and schematicity. Word formation processes, as for example *-er* nominalization in English (*baker*, *teacher*, etc.) are also to be seen as constructions (Booij 2010, Hartmann 2016), since they pair a partly schematic form with a meaning.

Viewing word formation processes as constructions is more than just sticking a new label on a well-known phenomenon. In such a perspective, word formation is connected with the idea of a hierarchically ordered network of symbolic units. The most abstract representation of a word formation process, as for instance verb + *-er* only represents the highest node in a network with many branches and subschemata. For *-er* nominalization, several subschemata can be identified: Forms such as *worker*, *singer*, or *teacher* express agentive roles; forms such as *opener*, *grinder*, or *stapler* encode instruments. There are further idiosyncratic forms such as *fiver*, which represent subschemata at even finer levels of granularity. Construction Grammar can account for these structures by mapping them onto a network of constructions that inherit aspects of more abstract schemas but that also have idiosyncrasies that are specific to lower-level generalizations.

Analyses of morphological productivity typically focus on the most schematic form of a word formation process. In this talk I will argue for an alternative view. Using the tools of Construction Grammar, it can be asked which parts of a constructional network are particularly productive and which parts are less active. On the basis of corpus data, I will try to show how the network structure of word formation processes can be studied, and how this affords a more differentiated perspective on productivity.

References

Booij, Geert. 2010. *Construction Morphology*. Oxford: Oxford University Press.

Goldberg, Adele E. 1995. *Constructions. A Construction Grammar Approach to Argument Structure*. Chicago: University of Chicago Press.

Goldberg, Adele E. 2006. *Constructions at Work: The Nature of Generalization in Language.* Oxford: Oxford University Press.

Hartmann, Stefan. 2016. *Wortbildungswandel. Eine dichrone Studie zu deutschen Nominalisierungsmustern*. Berlin: De Gruyter.

Grammar, talk, and social cognition: A cross-linguistic study

Nicholas Evans

(Australian National University / ARC Centre for the Dynamics of Language (COEDL))

'Languages do best what speakers do most' is a famous functionalist motto. Few would disagree that it is a key insight in understanding how language structures evolve. But this elegant formulation conceals two deep questions. Firstly, by being formulated in the present it conceals what may be a very slow time-scale for the evolution of structures. Does the fact that English and Japanese have a grammaticalised past tense, while Indonesian does not, reflect something about what is going on in the speech of people today, or in the past? Secondly, are 'grammars' and 'speakers' intended as a single homogenous group across the world's cultures, or do different effects get played in different cultures? Thirdly, can causality flow the other way: can particular grammars provide ready grooves that induce speakers of some languages to make particular coding choices more often.

These are fundamental questions for our understanding of why languages differ so much from each other. To answer them, for a targeted domain of language (social cognition), a team of us have created the the Social Cognition Parallax Interview Corpus (SCOPIC) (Barth & Evans 2017), based on a narrative problem-solving task (the Family Problems Picture Task; see San Roque et al 2012) which aims to elicit rich, naturalistic talk about many aspects of social cognition, in descriptive, conversational and narrative modes. As a narrative problem-solving task, it avoids privileging the categories of any one language in the way that can happen with questionnaires or parallel translation tasks. In other words, speakers of each language are left free to highlight whatever it is about the situations they consider worthy of emphasis.

In this talk I will sketch out the most interesting features of social cognition as a domain for semantic typology, illustrate how the Family Problems Picture Task works, describe the technical structure of the corpus, and show some examples of comparative corpus-based analyses that illustrate the degree to which languages can make very different coding choices in talking about social cognition.

References

Barth, Danielle & Nicholas Evans. The social cognition parallax corpus (SCOPIC): design and overview. Language Documentation and Conservation Special Publication No. 12 Social Cognition Parallax Corpus (SCOPIC). http:/hdl.handle.net/10125/24742. Pp. 1-21.

San Roque, Lila, Alan Rumsey, Lauren Gawne, Stef Spronck, Darja Hoenigman, Alice Carroll, Julia Miller & Nicholas Evans. 2012. Getting the story straight: language fieldwork using a narrative problem-solving task. Language Documentation and Conservation 6:134-173.

A dynamic typology of syntactic change in Postcolonial Englishes

Devyani Sharma

(Queen Mary, University of London)

The birth of New Englishes under multilingual, postcolonial conditions is a rich testing ground for evaluating the role of forces such as universals (e.g. Kortmann and Szmrecsanyi 2004) and language transfer (e.g. Bao 2015) in shaping 'offspring' systems. Contact linguistics often relies on relatively static comparisons of two abstract linguistic systems, but the actuation problem in historical change is fundamentally dynamic, asking 'why certain instances of variation become changes and others don't' (McMahon 1994: 248). In this talk, I develop a new typology of Englishes in multilingual postcolonial settings to assess the relative strength of several hypothesised sources of change. The analysis starts with the common approach of contrasting divergent features, but then distinguishes more finely between degrees of stability in usage across the speech community. The core question posed is: Why does only a subset of variable syntactic usage become entrenched over time in a given contact variety? The analysis starts with a quantitative comparison of two Englishes with very different substrates— Indian English and Singapore English. Variable use of several syntactic features (e.g. past tense, progressive, copula, articles, agreement, modals) is accounted for better by direct and indirect substrate influence, particularly overt morphological encoding in the substrate, than by universals. However, when we look at dynamic usage across speakers, we see that only some of this variable usage has stabilised and become deeply embedded across the whole population. Substrates cannot fully account for this subtler difference. To better understand stabilisation over time, I turn to a sociohistorical hallmark of postcolonial Englishes: diminishing input from the original colonial English variety. Second Language Acquisition theory helps to finely model sensitivity to input in learning (the Subset Principle, White 1989; the Interface Hypothesis, Sorace and Filiaci 2006). I therefore add to the analysis of dialect outcomes the factor of *input demand*, i.e. the relative need for rich input for the acquisition of a specific syntactic form. I develop a four-way typology to assess stable syntactic traits across New Englishes along these two core dimensions — high/low substrate contrast, and high/low input demand. Both acquisitional dynamics are found to be necessary for a full account of long-term stable outcomes (with substrates appearing to be the more powerful of the two) and the specific SLA theories used also accommodate discourse-based innovation that is often found in New Englishes (cf. Lange 2012). As contact is modelled here as dynamic phases of individual learning sensitive to the historically changing linguistic ecology, the typology allows us to pinpoint explanations for more stable outcomes within a wider feature pool of variability.

References

Bao Zhiming. 2015. *The Making of Vernacular Singapore English: System, Transfer and Filter.* Cambridge: Cambridge University Press.

Kortmann, Bernd, and Benedikt Szmrecsanyi. 2004. Global synopsis: morphological and syntactic variation in English. In B. Kortmann, K. Burridge, R. Mesthrie and E. Schneider (eds.), *A Handbook of Varieties of English, Vol. 2: Morphology and Syntax.* Berlin: Mouton de Gruyter, 1122-82.

Lange, Claudia. 2012. *The Syntax of Spoken Indian English.* Amsterdam: Benjamins.

McMahon, April. 1994. *Understanding Language Change.* Cambridge: Cambridge University Press.

Sorace, Antonella. and Francesca Filiaci. 2006. Anaphora resolution in near-native speakers of Italian. *Second Language Research* 22 (3): 339-368

White, Lydia. 1989. *Universal Grammar and Second Language Acquisition*. Amsterdam: John Benjamins.

ROUND TABLE

LINGUISTICS FROM SAUSSURE TO THE 21ST CENTURY

'This eternal wanderer': A non-dogmatic reading of Saussure

John E. Joseph

(University of Edinbourg)

The man more responsible than anyone apart from Bally and Sechehaye for spreading awareness of the thought of Ferdinand de Saussure, and making it into the basis of 20th and 21st century linguistics, wrote concerning him:

But perhaps the genuine greatness of this eternal wanderer and pathfinder lies precisely in his dynamic repugnance toward the "vanity" of any "definitive thought". Then, the vacillation of his terms and concepts, the outspoken doubts, open questions, divergences and contradictions between his diverse writings and lectures within any single draft or course appear to be a vital constituent of an anxious seeking and restless striving as well as of his essentially multilateral view of language. (Jakobson 1969: 8)

It was perhaps an inevitable consequence of the eventual success of the *Cours de linguistique générale* (1916) that it would be read, used, appropriated and taught differently across continents, cultures and schools of linguistic thought, in ways that interpreted its terms and concepts as the definitive thought Saussure had not intended for it to be. Already by the 1960s Saussure was being read as a dogmatic reductivist, and Jakobson's attempted correction, despite its insight and eloquence, proved to be too little too late.

The publication of the *Écrits de linguistique générale* (2002) revealed to many that Saussure's thought was not confined to the *Cours*, even though most of what the 2002 book contained had already been published in Engler's critical edition of the *Cours* in 1968-74, or indeed by Godel in the 1950s. The *Écrits* also included newly discovered material, but with no radical conceptual departures from the already known manuscripts. Yet its reception was so shaped by the previous dogmatic reading of the *Cours* that its 'vacillations' too have been turned by some into new dogma, when it ought to have been to confirm the validity of Jakobson's view of Saussure as wanderer and pathfinder – 'eternal' still today, as his work inspires new insights and acts as a corrective to approaches that ignore fundamental paradoxes of language and linguistic analysis that Saussure managed to encapsulate and express more clearly than anyone before or since.

I shall examine a set of Saussurean dichotomies in which we see him struggle with a paradox, creating categories and vocabulary for expressing, analysing and debating it – but where this striving, always more evident in the source materials than in the published *Cours*, has been read by later generations as dogmatic assertion. To give one example: *synchronic* and *diachronic* are often characterised as an opposition in which the synchronic alone is said to have been valid in Saussure's view. The new *Oxford Reference* on-line resource says for instance that

Linguistics, in Saussure's time, approached the problem of the multiplicity of languages by trying to trace each of them back to a handful of common sources ([…]). This approach was deemed diachronic by Saussure because it looks for the production of difference across time. But for Saussure this ignored the (to him, more interesting and important) problem of how to account for the existence

and operation of language itself. […] By freezing time, or better ignoring its effects, Saussure thought it would be easier to see that which was eternal and universal. (http://www.oxfordreference.com/view/10.1093/oi/authority.20110803100547367)

It is not the case that Saussure saw the linguistics of his time as diachronic: on the contrary, his aim was to make it so. If he saw synchronic analysis as more interesting and important, it is curious that nearly all the work he published in his lifetime was diachronic in approach. As for "the existence and operation of language itself" and "that which was eternal and universal", these were at best implicit concerns for his analysis of languages, and his discussions of them draw more heavily on diachronic than synchronic evidence. Quentin Skinner (1969) warned that

The most persistent mythology is generated when the historian is set by the expectation that each classic writer ([…]) will be found to enunciate some doctrine on each of the topics regarded as constitutive of his subject. It is a dangerously short step from being under the influence (however unconsciously) of such a paradigm to 'finding' a given author's doctrines on all of the mandatory themes. The (very frequent) result is a type of discussion which might be labelled the mythology of doctrines. (Skinner 1969: 7; see also Joseph 2015)

One then ends up "mistaking some scattered or incidental remarks by one of the classic theorists for his 'doctrine' on one of the themes which the historian is *set* to expect", or else "a classic theorist who fairly clearly does fail to come up with a recognizable doctrine on one of the mandatory themes is then criticized for his failure to do so" (ibid., p. 14). At its worst, this can become "a means to fix one's own prejudices on to the most charismatic names, under the guise of innocuous historical speculation. History then indeed becomes a pack of tricks we play on the dead" (pp. 13-14).

Saussure has had more than his share of what Voltaire called the *tracasseries qu'on fait aux morts*. Like Daylight (2011), I aim to rescue aspects of his thought from their interpretation as dogma, in the belief that, understood in the way Jakobson read Saussure, they have much to offer us as we wander in search of new conceptual and methodological paths today.

References

Daylight, Russell. 2011. *What If Derrida Was Wrong about Saussure?* Edinburgh: Edinburgh University Press.

Jakobson, Roman. 1969. "Saussure's Unpublished Reflections on Phonemes". *Cahiers Ferdinand de Saussure* 26: 5-14.

Joseph, John E. 2015. "Corpse Puppetry: Anachronisms of Consistency, Continuity and Progress in the History of Linguistics". *History and Philosophy of the Language Sciences*, http://hiphilangsci.net/2015/06/03/salon-anachronism-in-linguistic-historiography/#johnjoseph

Saussure, Ferdinand de. 1916. *Cours de linguistique générale*. Ed. by Charles Bally & Albert Sechehaye, with the collaboration of Albert Riedlinger. Paris & Lausanne: Payot. Critical edition by Rudolf Engler, Wiesbaden: Harrassowitz, 1968-74.

Saussure, Ferdinand de. 2002. *Écrits de linguistique générale*. Ed. by Rudolf Engler & Simon Bouquet with the assistance of Antoinette Weil. Paris : Gallimard.

Skinner, Quentin. 1969. "Meaning and Understanding in the History of Ideas". *History and Theory* 8/1.3-53.

Saussurean heritage: Setting and removing notional boundaries

Ekaterina Rakhilina

(Moscow Higher School of Economics, School of Linguistics)

The history of linguistic thought does justice to Saussure primarily as a scholar who managed to set basic conceptual boundaries (between *langue* and *parole*, synchrony and diachrony, form and substance, etc.), which predetermined the subsequent development of various linguistic theories and linguistic practices of XX century (see, for example, [Geeraerts 1988]). It was mainly the cognitive approach of early 1980s that tried to revise the validity of Saussure's boundaries and dichotomies; not only did it rehabilitate diachrony and "parole" as legitimate territories for mainstream linguistic research, but also extended the realm of theoretical linguistics into newly acquired areas such as neural science, corpus linguistics or gesture studies.

Still, deeper studies of borderline phenomena may pose problems for cognitive linguistics as well, both methodological and theoretical. Interestingly, some insights of this development can be found already in Saussure's "Course": establishing hard and fast external boundaries for what he considered to be linguistics, he emphasized, at the same time, the transparency of (at least some) internal notional boundaries in linguistics. Cf. his famous question "D'autre part, est-il logique d'exclure la lexicologie de la grammaire ?" (Saussure 1971: 186) and the following discussion ultimately priviliging a unifying approach. A kind of continuity can be seen between such passages and a recent integrated treatment of linguistic levels developed within Construction Grammar, one of the most significant implementation of cognitive ideology.

If the problem of integrated treatment of linguistic levels can be considered as (mainly) solved with aprroaches like Construction Grammar, there are many other problems of this kind which need a deeper discussion. We can refer to them as "notional boundary" problems touching upon concepts and boundaries between semantic domains. Focusing on lexicology, it can be stated that a shift between domains corresponds to what is usually called a metaphor, whereas a shift within one and the same domain yields a metonymy. However, are these distinctions always neat? The paper discusses a cross-linguistic set of data collected by Moscow Lexical Typology Group (MLexT) which concerns qualities of physical objects (such as 'long', 'wet', 'sharp', 'soft', 'heavy', etc.). Our main claim is that not all conceptual boundaries are in fact observed in "lexicalization patterns" (if we adopt Leonard Talmy's parlance): neither the physical world nor the world of lexical meanings are discrete.

References

Geeraerts, Dirk. 1988. Cognitive grammar and the history of lexical semantics. In: B. Rudzka-Ostyn (ed.), *Topics in Cognitive Linguistics*, 647-677. Amsterdam: John Benjamins.
de Saussure, Ferdinand. 1971. Cours de linguistique générale / Ed. Bally et Sechehaye. Paris: Payot.

The Saussurean concept of the linguistic sign and modern linguistics

Klaas Willems

(University of Ghent)

The reception of Saussure's account of the linguistic sign ("le signe linguistique") in modern linguistics has had a checkered history. This is partly due to a number of inconsistencies in the version of the *Cours de linguistique générale* (CLG) published in 1916, which have been the object of much debate and commentary in Saussure scholarship since the 1950s.

In this paper I will first briefly review some of the main findings regarding the account of the linguistic sign presented in the 1916 version of the CLG (Saussure 1995 [1916]) and the more complex – and arguably more consistent – account on the basis of the critical edition of the CLG and additional source materials (Godel 1957, Saussure [Engler] 1968 and 1974, Saussure 2002). I will also examine the "Saussurean spirit" (Taylor 1999) of Cognitive Grammar and pay attention to some interesting similarities and differences between the Saussurean and the cognitive point of view.

I will then turn to the question whether Saussure's (or, more accurately, the Saussurean) account of the linguistic sign is still relevant to current linguistic theorizing, in particular since the functional and cognitive turn in the last quarter of the 20th century. I will focus on the following issues: bilateralness, the unity of the linguistic sign, polysemy, underspecification and semantic flexibility. Examples that will be discussed are drawn from studies in Cognitive Semantics (Fillmore, Langacker, Taylor), Discourse Analysis (Levinson), Information Structure (Lambrecht) and psycholinguistics (Frisson).

References

Fillmore, Ch. 1982. Frame semantics. In *Linguistics in the Morning Calm*, Linguistic Society of Korea (ed.), 111–137. Seoul: Hanshin Publishing Company.

Frisson, S. 2009. Semantic underspecification in language processing. *Language and Linguistic Compass* 3.111–127.

Godel, R. (1957). *Les Sources manuscrites du Cours de linguistique générale de Ferdinand de Saussure*. Genève: Droz (²1969).

Lambrecht, K. 2000. When subjects behave like objects: an analysis of the merging of S and O in Sentence-Focus constructions across languages. *Studies in Language* 24(3).611–682.

Langacker, R. 1987. *Foundations of cognitive grammar*. Vol. 1: *Theoretical Prerequisites*. Stanford, CA: Stanford University Press.

Levinson, S. 2000. *Presumptive meanings: The theory of generalized conversational implicature.* Cambridge, MA: MIT Press.

Saussure, F. de (1995 [1916]). *Cours de linguistique générale*. Publié par Ch. Bally et A. Sechehaye avec la collaboration de A. Riedlinger. Edition critique préparée par T. De Mauro. Paris: Payot.

Saussure, F. de (1968). *Cours de linguistique générale*. Edition critique par R. Engler. Wiesbaden: Harrassowitz.

Saussure, F. de (1974). *Cours de linguistique générale*. Edition critique par R. Engler. Appendice: Notes de F. de Saussure sur la linguistique générale. Wiesbaden: Harrassowitz.

Saussure, F. de (2002). *Écrits de linguistique générale*. Etabli et édités par S. Bouquet et R. Engler avec la collaboration d'A. Weil. Paris: Gallimard.

Taylor, J. 1999. Cognitive semantics and structural semantics. In *Historical Semantics and Cognition*, A. Blank and P. Koch (eds.), 17–48. Berlin: Mouton de Gruyter.

GENERAL SESSION

Quotations as a vehicle for indirect negative characterisation: Case studies from Russian public fora

Ludmilla A'Beckett

(University of the Free State)

This paper draws on research of pragmatic acts conveying non-overt negative ascriptions (Searle, 1975; Grice, 1981; Evans, 1992; Sperber and Wilson, 1995; Bell, 1997). The investigation focuses on messages from social media in which quotations serve as a cursor to the object of disapproval.

The case studies are represented by fictional and often multimodal narratives which incorporate the statement of Russian President Vladimir Putin about the absence of Russian military forces in Crimea. They were collected through a Google search of Putin's words uttered at a press conference on the 4th of March, 2014: "You can go to a store and buy any uniform…. They [soldiers] are local self-defence forces".

Three types of thematic realisation surfaced in these fictional narratives: 1) inspecting Crimean stores for the availability of 'goods' (i.e. arms) implied at the press conference; 2) use of Putin's words to justify aggressive actions of rivals to Russia in geopolitics (e.g. NATO and China); 3) transferring Putin's claim to the domain of sports in order to explain some shameful defeats of Russian national teams in international competitions.

The mechanism of negative ascription hinges on several cognitive operations. In the narratives, the quotation embodies an improbable scenario which cannot be reconciled with the outlined development of events but has to be accepted since it was provided by a high authority. The clash of scripts generates a humorous reaction (see Raskin, 1984 and Attardo 1996 on the semantic mechanism of humour) whereas the source of the controversial quotation evokes censure. The mismatch of scripts in the fictional story highlights the absurdity of the original claim, i.e. when the appearance of heavily armed people in Crimea was explained as a spontaneous formation of "local self-defence forces" who also managed to buy grenade launchers and tanks in "a store". Script was defined by Raskin (1984: 46) as "a large chunk of semantic information surrounding the word and evoked by it [...] a cognitive structure internalized by the native speaker". The analogous reasoning results in implicatures about the inappropriateness of this qualification and insincerity of its author. The factors generating the negative ascription can also be explained through the application of "echo theory" (Sperber and Wilson, 1996), "optimal innovation hypothesis" (Giora 2003), and "carnivalesque actions" (Bakhtin, 1941).

The stories generated by social media have a multilayered structure. On the surface they contain an overt intention to entertain the audience by unfolding an amusing sequence of events. The non-overt meaning, however, is a charge against the author of the quotation who cannot be challenged without posing a threat to social order. The audience has to solve two conundrums in order to access the covert meaning of the narratives: "first, the quote as such has to be recognised, second, the original source should be properly identified." (Weiss, 2016: 192)

One of the reasons for the popularity of the "genre" of such insinuations in public fora (cf. Musolff, in print) lies in the possibility of deflecting censure and sanctions which the explicit conveyance of the charges against a top-ranked authority can draw.

References

Attardo, Salvatore. 1994. Linguistic Theories of Humor. Berlin/NewYork: Mouton de Gruyter.

Bakhtin, Mikhail. 1941. Rabelais and his world. Indiana University Press: Bloomington.

Bell, D.M. 1997. Innuendo. Journal of Pragmatics 27: 35-59.

Evans, N. 1992. "Wanjh! Bonj! Nja! : Sequential organisation and social deixis in Mayali interjections. Journal of Pragmatics 18: 225-244.

Giora, Rachel. 2003. On Salience of Our Mind. Oxford: Oxford University Press.

Grice, H.P. 1975. Logic and conversation. In: Steven Davis, ed. 1991. Pragmatics: 305-315. New York: Oxford University Press.

Musolff, Andreas. In print. Quotation and online identity: The voice of Tacitus in German newspapers and internet discussions. Pre-publication version of Chapter in: Arendholz, Jenny, Bublitz, Wolfram & Monika Kirner (eds). (in print). The Pragmatics of Quoting Now and Then. Berlin: de Gruyter.

Raskin, Victor. 1986. Semantic Mechanisms of Humor. Dordrecht/Boston:D. Reidel

Searle, John R. 1975. Indirect Speech Acts. In: Steven Davis , ed. , 1991, Prgamatics, 254-264. New York: Oxford University Press.

Sperber, Dan and Deirdre Wilson. 1995. Relevance. Communication and Cognition. Oxford: Blackwell.

Weiss, Daniel. 2016. Quotations in the Russian State Duma: types and functions. In: D.Weiss (guest editor), Contemporary Eastern European political discourse, ZfSl 1/2016, Special issue, 2016, 184-214.

Gapping in Wolof: A question of coordinators?

Anne Abeillé, Alain Kihm & Cheikh Ndiaye

(LLF, University Paris-Diderot; CNRS, University Paris-Diderot; & University of Ziguinchor)

Not all languages admit gapping as in English *Mary had a beer and John a glass of wine* (Ross 1970). Carrera Hernández (2007) proposes a generalization such that gapping is only possible in languages having the same coordinator *and* for noun phrases and clauses. A language not satisfying this condition is Wolof (Niger-Congo, Atlantic) where *ak* coordinates NPs and cannot coordinate clauses (1a), whereas *te* is said to be the coordinator between clauses. As a matter of fact, (1b) is ungrammatical, which seems to support Carrera Hernández's generalization:

(1) a. *Jënd naa   woto, te/*ak   jënd nga   mobilet.*
buy pfv.1sg car   and   buy pfv.2sg moped
'I bought a car, and you bought a motorbike'
b. **Jënd naa   woto, te/ak   yow mobilet*.
buy   prf.1sg car   and you motorbike
I bought a car and you a motorbike

The real problem with (1), however, is that *te* does not mean 'and', but rather 'while' (French *alors que*). Unlike coordinators such as *and* or *but*, strongly contrastive conjunctions usually prevent gapping: cf. English **I bought a car, while you a motorbike* (French **J'ai acheté une voiture, alors que toi une mobylette*). If the conjuncts are simply juxtaposed — the preferred strategy in Wolof — gapping becomes possible:

(2) *Omar dina   ñëw suba,   Ayda ginaaw suba.*

Omar fut.3sg come tomorrow Ayda after   tomorrow

Omar will come tomorrow, Ayda after tomorrow.

Relying on informants from Ziguinchor, we show that gapped sentences in Wolof show all the properties of their English or French equivalents. Linking the conjuncts with *wala* ('or'), *waaye* or *wànte* 'but' does not prevent gapping:

(3) *Omar dina   ñëw suba,   waaye Ayda ginaaw suba   rekk.*

Omar fut.3sg come tomorrow but   Ayda after   tomorrow only

Omar will come tomorrow, but Ayda only after tomorrow.

The number and/or person of the subjects may differ in the two (or more) conjuncts:

(4) *Damay   sangu ci suba   si,   Omar ci ngoon si.*

focv.ipfv.1sg wash   in morning def.sg Omar in evening def.sg

I wash in the morning, Omar in the evening.

Without gapping the verb form in the second conjunct of (4) would be *dafay sangu* {focv.ipfv.3sg wash} 'washes'.

In the second conjunct, all elements repeated from the first conjunct may be omitted (stripping) (5a) and replaced by an equivalent of 'too, as well' (5b); in this case, *ak* and *te* are both possible:

(5)a. *Omar   war na   dem marsé   wala   doomam.*

  Omar must prf.3sg go   market   or   son-poss.3sg

   'Omar   must go to the market or his son'

b. *Omar war na   dem marse suba   ak/te doomam   itam.*

Omar must prf.3sg go   market tomorrow and son-poss.3sg too

Omar must go to the market tomorrow and his son too.

This may occur in embedded clauses:

(6) a.*Yaakaar naa   ne Omar dina   dem marse suba   ak doomam   itam.*

hope   prf.1sg comp Omar fut.3sg go   market tomorrow and son-poss.3sg too

I hope that Omar will go to the market tomorrow and (that) his son will too.

b. *Omar dina   dem marse suba,   foog naa   ne doomam   itam.*

Omar fut.3sg go   market tomorrow, think   prf.1sg comp son-poss.3sg too

Omar will go to the market tomorrow, I think that his son will too.

From these data, we conclude that Carrera Hernández's generalization does not hold: Wolof does not

avail itself of an all purpose *and*, yet gapping is possible. This points to the need for in-depth research into the semantics of coordinators before any sweeping generalization can be reached.

References

Carrera Hernández, Ana (2007). Gapping as a syntactic dependency, *Lingua* 117: 2106-2133.

Ross, John (1970). Gapping and the order of constituents, in Bierwisch & Adolph (eds) Progress in Linguistics, The Hague :Mouton, 249-59.

Modal *qad* in Standard Arabic: Where implicativity and time interacts

Abdel-Rahman Abu Helal

Modal *qad* in Modern Standard Arabic (MSA) represents a special case of modality that departs from other cross-linguistic cases of modality along two dimensions: First, the interpretation of modal *qad* is totally context-independent. Unlike English- and St'a´t'imcets-like languages, the verbal particle *qad* incorporates a modality component with an unambiguous expectation-denoting modal base and a lexically-specified quantification force whose strength is systematically constrained by the temporal properties of *qad*'s prejacent (i.e., with the perfect associated with the necessity force of expectation and imperfect with possibility force). Second, the verbal particle *qad* , when interacting with perfect tense, triggers an actuality entailment, as translated into the meaning of emphatic and assertive modality.

We offer a common explanation to these two observations, which is built into the following ingredients: (1) Following Kratzer (1991), we analyze *qad* as a modal quantifier with a historical accessibility relation that is evaluated at the utterance time and a similarity function that further restricts those historically accessible worlds to the set of worlds that is compatible with agent expectation. (2) We derive the default necessity force in the perfect by maximizing the set of historically accessible worlds at the upper bound of the perfect in such a way that the prejacent is evaluated relative to the pluralized maximal world that comprises the actual world with the universal reading being automatically derived (3) Given that the imperfect is open, *qad* should existentially quantify over the accessible worlds with no maximization in effect. This analysis accounts for the context-independent and actualized behavior of modal *qad.*

From discourse to syntax: The use of the discourse marker *bwe* in the creation of interclausal connectives in Yaqui (Uto-Aztecan)

Albert Álvarez González
(Universidad de Sonora, Mexico)

This paper aims to show and explain the evolutionary path through which a discourse marker of the Yaqui language (Uto-Aztecan) has been recruited for interclausal connectivity purposes. The main point of this study is to propose that two Yaqui interclausal connectives (*bwe'ituk* and *bweta*) are the result of a recent formation process that combines a discourse marker (*bwe*) and linguistic elements associated with the strategies used in the past for marking cause/reason clauses and adversative clauses in Yaqui (Buelna 1890). I will argue that these formations are functionally motivated by the fact that *bwe* is a discourse connective of discontinuity, that is, a discourse marker that introduces a topic shift. Based on this connecting function, the element *bwe* has been recruited from discourse to syntax, in order to participate in the creation of two new interclausal connectives that also correspond to thematic reorientation devices: the cause/reason adverbial connective *bwe'ituk* and the adversative connective *bweta.*

In the case of reason/cause adverbial clauses, the creation of an adverbial connective out of a discourse marker also illustrates a process of explicitness-driven maturation (Dahl 2004, Bisang 2014), going from economy (hidden complexity) to explicitness (overt complexity), that is, from a multifunctional structure (a participial clause possibly associated with temporal, conditional, purpose and causal interpretations) to a monofunctional structure associated only with a causal interpretation.

References
Bisang, Walter. 2014. Overt and hidden complexity—two types of complexity and their implications. *Poznan Studies in Contemporary Linguistics* 50(2): 127-143.
Buelna, Eustaquio (ed). 1890. *Arte de la Lengua Cahita.* México: Imprenta del Gobierno Federal.
Dahl, Östen. 2004. *The Growth and Maintenance of Linguistic Complexity.* Amsterdam/Philadelphia: John Benjamins.

The interrogative-relative polysemy revisited: Evidence from Iranian

Sandra Auderset
(University of California, Santa Barbara)

This study investigates the polysemy of interrogatives and relatives (i.e. one form covers both functions) in the Iranian branch of Indo-European from a diachronic perspective. This provides a fresh perspective on the phenomenon and its development.

Many Indo-European languages have one element that is used to mark both content interrogatives and relativization, e.g. English *Who left?* and *I know the woman who left*. This polysemy is the result of a grammaticalization process from question word to relative marker, with intermediate stages in which the element is used for complement clauses. It has been noted (Heine & Kuteva 2006, Haspelmath 2001, among others) that the polysemy is an areal feature of the languages of Europe and only rarely found outside of it. Heine & Kuteva (2006) propose that the development arose independently (i.e. as a parallel innovation) in Italic and Slavic, and that the pattern then spread to most other languages in Europe – including non-Indo-European ones such as Hungarian – via language contact. As a consequence, studies on the polysemy focus on the so-called Standard Average European languages and languages that have intensive contact with the former (cf. Mithun 2012). The Iranian languages, however, are and have been spoken outside of Europe, which might explain why they are hardly ever mentioned in connection with this phenomenon.

The study is based on a sample of 22 languages. For each of the languages, the relative markers were collected and then compared to interrogative words and complementizers in order to assess whether they were identical or not. The results are summarized in Table 1. Examples 1a-1c illustrate a case in which a marker has all three functions. As can be seen from the table, the interrogative-relative polysemy was first attested in Middle Iranian, although an earlier stage of the grammaticalization, namely the development of the interrogative word into a complement clause marker, is attested already in Old Iranian (cf. Example 2).

Based on the scenario proposed for the grammaticalization and diffusion of the polysemy in Europe, the Iranian case might be attributed to contact with Slavic, one of the centers of innovation. Contact between Slavic and Iranian languages has indeed been documented, for example in a handful of Iranian loanwords in Slavic languages and Proto-Slavic (Kiparsky 1975:60-61). As noted above, the polysemy was already present in Middle Iranian, while it first appears in Old Church Slavic, attested from the 9th to 12th century CE – i.e. after the Middle Iranian period (cf. Table 1). Iranian languages were also in contact with two other branches of Indo-European – Anatolian and Tocharian – which also exhibit the interrogative- relative polysemy and predate Old Church Slavic attestations as well (cf. Table 2).

That the interrogative-relative polysemy is attested in Iranian and two other branches of Indo-European spoken outside of Europe suggests that the story of its development and spread might be

more complex than first thought. Possible explanations could be that there was a third center of innovation, that the diffusion went further than previously assumed, or that the foundation for it was already set in Proto-Indo-European.

References

Angali, Koorosh. 2004. *The Angālī Dialect*: University of California, Berkeley PhD dissertation.

Authier, Gilles. 2012. *Grammaire juhuri, ou judéo-tat, langue iranienne des Juifs du   Caucause   de l'est*. Wiesbaden: Reichert.

Bashir, Elena. 2009. Wakhi. In Gernot Windfuhr (ed.), *The Iranian Languages*, 825–862. London, New York: Routledge.

Belyaev, Oleg. 2014. Anaphora in Ossetic correlatives and the typology of clause combining. In Pirkko Suihkonen & Lindsay J. Whaley (eds.), *On diversity and complexity of languages spoken in Europe and Northern and Central Asia*, 275–310. Amsterdam: John Benjamins.

David, Anne. 2014. *Descriptive Grammar of Pashto and its Dialects*. Boston: Walter de Gruyter.

Durkin-Meisterernst, Desmond. 2009. Khwarezmian. In Gernot Windfuhr (ed.), *The Iranian Languages*, 336–376. London, New York: Routledge.

Durkin-Meisterernst, Desmond. 2014. *Grammatik des Westmitteliranischen (Parthisch und Mittelpersisch)*. Wien: Verlag der Österreichischen Akademie der Wissenschathen.

Edelman, Joy I. & Leila R. Dodykhudoeva. 2009. Shughni. In Gernot Windfuhr (ed.), *The Iranian Languages*, 787–824. London, New York: Routledge.

Emmerick, Ronald E. 2009. Khotanese and Tumshuqese. In Gernot Windfuhr (ed.), *The Iranian Languages*, 377–415. London, New York: Routledge.

Gholami, Saloumeh. 2014. *Selected Features of Bactrian Grammar*. Wiesbaden: Harrassowitz.

Haspelmath, Martin. 2001. the European linguistic area: standard average European. In Martin Haspelmath, Ekkehard König, Wulf Oesterreicher & Wolfgang Raible (eds.), *Language typology and language universals: an interna- tional handbook*, 1492 – 1510. Berlin: Mouton de Gruyter.

Heine, Bernd & Tania Kuteva. 2006. From Question to Subordination. In *The changing languages of Europe*, 204–243. Oxford, New York: Oxford University Press.

Hoffner, Harold & H. Craig Melchert. 2008. *A Grammar of the Hittite language*. Winona Lake, ID: Eisenbrauns.

Jahani, Carina. 2008. Restrictive relative clauses in Balochi and the marking of the antecedent - linguistic influence from Persian? In Carina Jahani, Agnes Korn & Paul Pitus (eds.), *The Baloch and others: linguistic, historical and socio-political perspectives on pluralism in Balochistan*, 139–166. Wiesbaden: Reichert.

Jahani, Carina & Agnes Korn. 2009. Balochi. In Gernot Windfuhr (ed.), *The Iranian Languages*, 634–692. New York: Routledge.

Kieffer, Charles M. 2009. Parachi. In Gernot Windfuhr (ed.), *The Iranian Languages*, 693–720. London, New York: Routledge.

Kiparsky, Valentin. 1975. *Russische Historische Grammatik*, vol. III: Entwicklung des Wortschatzes. Heidelberg: Winter.

Krause, Wolfgang & Werner thomas. 1960. *Tocharisches Elementarbuch – Grammatik*, vol. 1. Heidelberg: Winter.

McCarus, Ernest N. 2009. Kurdish. In Gernot Windfuhr (ed.), *The Iranian Languages*, 587–633. London, New York: Routledge.

Melchert, H. Craig. 2008a. Luvian. In Roger D. Woodard (ed.), *The Ancient Languages of Asia Minor*, Cambridge: Cambridge University Press.

Melchert, H. Craig. 2008b. Lycian. In Roger D. Woodard (ed.), *The Ancient Languages of Asia Minor*, Cambridge: Cambridge University Press.

Mithun, Marianne. 2012. Questionable relatives. In Bernard Comrie & Zarina Estrada-Fernández (eds.), *Relative Clauses in Languages of the Americas*, Benjamins.

Paul, Daniel. 2011. *A comparative dialectal description of Iranian Taleshi*: University of Manchester PhD dissertation.

Paul, Ludwig. 1998. *Zazaki*. Wiesbaden: Reichert.

Paul, Ludwig. 2009. Zazaki. In Gernot Windfuhr (ed.), *The Iranian Languages*, 545–586. London, New York: Routledge.

Rastorgueva, V. S., A. A. Kerimova, A. K. Mamedzade, L. A. Pireiko & Joy I. Edelman. 2012. *The Gilaki Language*. Uppsala: Uppsala Universitet.

Skjærvø, Prods Oktor. 2009a. Middle West Iranian. In Gernot Windfuhr (ed.), *The Iranian Languages*, 196–278. London, New York: Routledge.

Skjærvø, Prods Oktor. 2009b. Old Iranian. In Gernot Windfuhr (ed.), *The Iranian Languages*, 4 3–195. London, New York: Routledge.

Skjærvø, Prods Oktor. 2016. An Introduction to Old Persian. http://www.fas.harvard.edu/iranian/OldPersian.opcomplete.pdf. accessed 09.01.2197

Thackston, Wheeler M. 2006. Sorani Kurdish – a reference grammar with selected readings. http://www.fas.harvard.edu/iranian/Sorani/index.html. accessed 09.01.2017

Thordarson, Fridrik. 2009. *Ossetic Grammatical Studies*. Vienna: Österreichische Akademie der Wissenschaften. Windfuhr, Gernot & John R Perry. 2009. Persian and Tajik. In Gernot Windfuhr (ed.), *The Iranian Languages*, 416–544. London, New York: Routledge.

Yoshida, Yutaka. 2009. Sogdian. In Gernot Windfuhr (ed.), *The Iranian Languages*, 279–335. London, New York: Routledge.

How Georgian is (not) like Basque: A comparative case study of split-S languages

James Baker

(University of Cambridge)

Introduction. In split-S systems the arguments of different intransitive predicates occur with different case and/or agreement marking. This study focuses on two languages with superficially rather similar split-S case systems, Basque and Georgian:

    (1) Basque:

        a.   *Gizon-a   etorri   da.*   b.   *Gizon-a-**k**   ikasi   du.*
                man-the(-abs) came is   man-the-erg   studied has
                "The man came."   "The man studied."

    (2) Georgian:

        a.   *Rezo gamoizarda.* b.   *Nino-**m**   daamtknara.*
                Rezo(-abs)   he.grew.up   Nino-erg   she.yawned.
                "Rezo grew up."   "Nino yawned."

Data. *(1) Basque.* The analysis proceeds largely from the classes of intransitive verbs identified by Sorace (2000). Change of location and change of state verbs (e.g. *erori* "fall", *hazi* "grow") in Basque almost always occur with absolutive marking. Verbs denoting states and uncontrolled processes are more variable: some occur with absolutive marking (e.g. *geratu* "remain", *irristatu* "skid"), others preferentially with ergative marking (e.g. *iraun* "last", *dardaratu* "tremble"). Motional controlled process verbs are similarly variable. Non-motional controlled processes, on the other hand, generally govern ergative, e.g. *trabailatu* "work".

(2) Comparison with Georgian. Georgian change of state (e.g. *kvdeba* "die") and non-motional controlled process verbs (e.g. "work") pattern with Basque in occurring with absolutive and ergative marking respectively. Likewise, the state, uncontrolled process and motional controlled processes classes pattern with Basque: some verbs in these categories take absolutive (e.g. *darchena* "stay") and some ergative subjects (e.g. *arleboba* "exist"). More substantial differences arise amongst change of location verbs: while many of these (e.g. "fall") take absolutive, as in Basque, some occur with ergative (e.g. "go up").

	Basque	**Georgian**
Change of location	*Absolutive*	*Absolutive or ergative*
Change of state	*Absolutive*	*Absolutive*
State	*Absolutive or ergative*	*Absolutive or ergative*
Uncontrolled process	*Absolutive or ergative*	*Absolutive or ergative*
Controlled process: motional	*Absolutive or ergative*	*Absolutive or ergative*
Controlled process: non-motional	*Ergative*	*Ergative*

Table 1. Summary of case patterns in Basque and Georgian.

Analysis. The similarities between Basque and Georgian are striking given that these languages are unrelated and geographically distant, but there are also differences to be accounted for. I hold the mapping of arguments to absolutive or ergative to be constrained by a hierarchy of formal features (cf. Sorace 2000):

(3) [+change] > [+state] > [+process, −control] > [+process, +control]

If absolutive can be associated with a feature F on this hierarchy, it also must be available for all features to the left of F; if ergative is associated with F it must also be available for all features to F's right.

Further subtleties in the differences between languages may arise in various ways. In particular, some sorts of verb may grammaticalise different features in different languages. This is constrained by the verb's proximity to the prototypical semantic associations of the formal feature. Thus, while verbs which semantically denote *changes of state* are always [+change], verbs of *motion* (less prototypical changes) are only sometimes grammaticalised as [+change].

We thus have a constrained theory of linguistic variation which accounts for similarities between Basque, Georgian and other languages whilst also permitting differences.

References

Mithun, M. (1991). Active/agentive case marking and its motivations. *Language* 67(3), 510–46.
    Sorace, A. (2000). Gradients in auxiliary selection with intransitive verbs. *Language* 76(4), 850–90.

Oh, wait, epic fails inside! English pragmatic markers in Spanish Internet football fora

Isabel Balteiro & Miguel Ángel Campos
(Universidad de Alicante)

Although there is ample and profound research on Anglicisms in Spanish, both in general (Rodríguez 2002) and in various language fields (Milić 2013; Rodríguez 2007; Rodríguez 2008; Rodríguez González 2012, amongst many others) and components, such as lexis, syntax, etc. (Gómez Capuz 2000; Haspelmath 2009; Haspelmath and Tadmor 2009; Furiassi and Gottlieb 2015; Pulcini, Furiassi and Rodríguez 2012), there is a growing phenomenon that shows that the English language is influencing the very structure of other languages, even in weak contact settings or rather in cases of remote language contact. The use of English pragmatic markers (on pragmatic borrowing, see Andersen 2014; Onysko 2011; Peterson 2008 & 2012; Peterson and Vaattovaara 2014; Prince 1988), such as connectors, interjections, expletives, topic-shifters, etc. in a recipient language, such as Spanish, sometimes exceeds mere borrowing and becomes an almost "normal" metapragmatic instrument in heated debate and argument, close to code-switching. Our paper will present a study of how these linguistic markers, such as "oh, wait", "[noun] inside", "[pl. noun] everywhere", etc. have become a generalized argumentative strategy which lends force to any argument and even ad hominem attack in Internet fora in which Spanish is the language of communication. Through a qualitative analysis of messages in football fora, especially in the website of sports newspapers, it is our aim to show how the use of English-language strategies has become widespread among Spanish internet users who, apart from using Anglicized lexis, have learned to incorporate and imitate the pragmatic markers used in English. Furthermore, we also analyze whether these markers exist alongside a semantically-close equivalent in Spanish or not, whether these uses differ from the source language, as well as other reasons which may explain them. The results show a strong impact of these English pragmatic markers which have been incorporated socially, pragmatically and grammatically, and are therefore used as fluently as any other device in the recipient language.

References

Andersen, Gisle (2014). 'Pragmatic borrowing', *Journal of Pragmatics* 67: 17-33.

Onysko, Alexander and Winter-Froemel, Esme (2011), 'Necessary loans – luxury loans? Exploring the pragmatic dimension of borrowing', *Journal of Pragmatics* 43: 1550-1567.

Furiassi, Cristiano, and Gottlieb, Henrik (eds.) (2015). *Pseudo-English: Studies on False Anglicisms in Europe*. Amsterdam/Philadelphia: John Benjamins.

Gómez Capuz, Juan. (2000). Anglicismos léxicos en el español coloquial: Análisis semántico de los anglicismos y sus equivalentes españoles en un corpus de lengua hablada. Cádiz: Servicio de Publicaciones de la Universidad de Cádiz.

Haspelmath, Martin (2009). 'Lexical borrowing: Concepts and issues', in Martin Haspelmath and Uri Tadmor (eds.), *Loanwords in the world's languages: A comparative handbook*. Berlin: De Gruyter Mouton, 35-54.

Milić, Mira (2013). 'The Influence of English on Serbian Sports Terminology', *ESP Today – Journal of English for Specific Purposes at Tertiary Level* 1/1: 65-79, http://www.esptodayjournal.org/pdf/vol_1_1/4.%20MIRA%20MILIC%20-%20full%20text.pdf.

Peterson, Elizabeth (2008). 'Pressure to *please*: The case of English and politeness in Finland', in C. Vergaro (ed.), *Dynamics of language contact in the twenty first century* Perugia: Guerra Edizioni, 161-177.

Peterson, Elizabeth (2012). 'Investigating the relationship of discourse markers and contact with English: The use of pliis in Finnish', *DipVaC 1* (Salford).

Peterson, Elizabeth and Vaattovaara, Johanna (2014), '*Kiitos* and *pliis:* the relationship of native and borrowed politeness markers in Finnish. *Journal of Politeness Research* 10/2: 247-269.

Prince, Ellen F. (1988). 'On pragmatic change: The borrowing of discourse functions', *Journal of Pragmatics,* 12/5-6: 505-518.

Pulcini, Virginia, Furiassi, Cristiano, and Rodríguez, Félix (2012). 'The lexical influence of English on European languages', in Cristiano Furiassi, Virginia Pulcini, and Félix Rodríguez Gonzáles (eds.), *The Anglicization of European Lexis.* Amsterdam: John Benjamins, 1-24.

Rodríguez, Félix (2002). Spanish. In Manfred Görlach, ed. *English in Europe*. Oxford: OUP, 128-150.

Rodríguez, Félix (2007). Variaciones gráficas en los anglicismos deportivos, *Donde dice ...* (Boletín de la Fundación del Español Urgente [Fundéu]), abril, mayo, junio, 1213.

Rodríguez, Félix (2008). Anglicisms in Spanish male homosexual terminology. In Fischer, R. and H. Pulaczewska, eds. *Anglicisms in Europe. Linguistic diversity in a global context*. Newcastle upon Tyne: Cambridge Scholars Publishing, 247-272.

Rodríguez González, Félix (2012). 'Anglicismos en el mundo del deporte: variación lingüística y sociolingüística'. *Boletín de la Real Academia Española*, Tomo XCII, Cuaderno CCCVI: 285-309.

Reconstructing the spread of Middle English schwa loss

Andreas Baumann, Christina Prömer, & Nikolaus Ritt

(University of Vienna)

Our paper presents a method for reconstructing the gradual spread of Middle English schwa loss (as in EME /ma.kə/ > LME /ma:k/ 'make', or ME (/se:məd/ → EModE /se:md/ 'seemed'). The task is challenging, because schwa is badly represented in writing: <e> graphs that have long been silent are still present in contemporary English (e.g. *make* and *seemed*). This makes it also difficult to exploit textual evidence for the study of changes that interact with schwa loss. In attempts to reconstruct the evolution of of word final consonant clusters from historical corpus data, for example, one faces questions such as "How likely is it that particular past tense forms such as *seemed* or *sinned* actually represent word final [md] or [nd]?" To answer them, one needs to know whether they still contained schwas or not.

Our method combines statistical methods with the interpretation of evidence from verse. It involves the following steps.

First, we selected 47 pieces of verse from the period between the 12th and the 18th century. For each century, we drew a sample of roughly 70 word tokens (so that the margin of error should be about 0.1) containing graphemes (typically <e>) that potentially indicated schwa. Then we determined on metrical grounds whether the <e>s actually represented /ə/s or not.

Next, we tested, by means of a generalized linear model, to what extent the likelihood that <e> represented [ə] correlated with two specific factors, namely (a) the onset of the following word (± vocalic) for final <e>s, and (b) the morphological status (suffix or stem) for final <eC> sequences.

Predictably, we found that the probability of schwa loss increased significantly in prevocalic contexts. Morphology, in contrast, was insignificant. We therefore distinguished between three variable types: (a) checked <e>s, (b) final <e>s before consonants, and (c) final <e>s before vowels.

For each type and for each century, we computed a probability of <e>s representing [ə]s, and produced three probability trajectories covering the seven centuries under investigation. A logistic growth model (Altmann 1983; Kroch 1989; Denison 2003; Wang & Minett 2005; Blythe & Croft 2012) restricted to the unit interval and with a variable growth rate and turning point was fitted to each trajectory using non-linear least squares approximation (R Development Core Team 2013). This yielded a probability of <e> representing [ə] for each point in time in the observation period (Fig. 1).
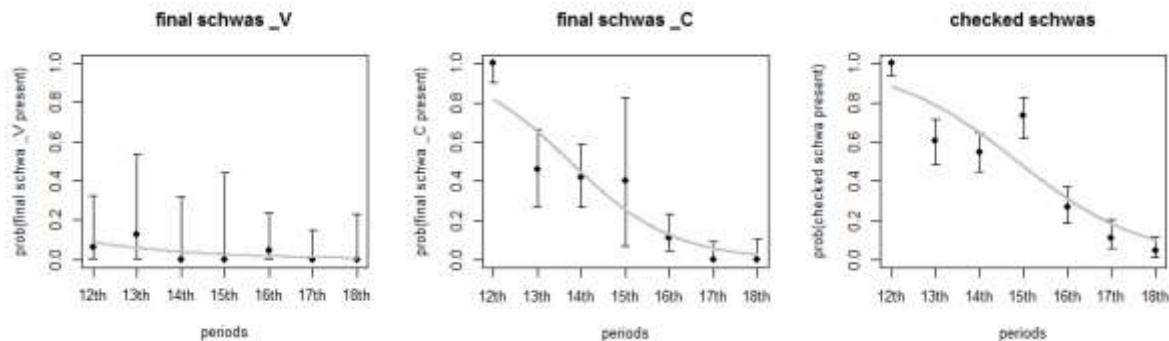
Figure 1. Frequency of schwa in three different environments.

To check the plausibility of our estimates, we tested whether the dates they predicted for the onset and offset of schwa loss coincided with the consensus found in the literature (Dobson 1957; Fisiak 1968; Brunner 1984; Minkova 1991; Mossé 1991). Reassuringly, this was the case. We therefore conclude that the estimates calculated for intermediate periods are equally plausible.

References

Altmann, G. 1983. Das Piotrowski-Gesetz und seine Verallgemeinerungen. In Karl-Heinz Best & Jörg Kohlhase (eds.), *Exakte Sprachwandelforschung*: *Theoretische Beiträge, statistische Analysen und Arbeitsberichte* (Göttinger Schriften zur Sprach- und Literaturwissenschaft 2), 54–90. Göttingen: Edition Herodot.

Blythe, Richard A. & William Croft. 2012. S-curves and the mechanism of propagation in language change. *Language* 88(2). 269–304.

Brunner, Karl. 1984. *Die englische Sprache*: *Ihre geschichtliche Entwicklung* (Sammlung kurzer Grammatiken germanischer Dialekte. B, Ergänzungsreihe Nr. 6), 2nd edn. Tübingen: Niemeyer.

Denison, David. 2003. Log(ist)ic and simplistic S-curves. In Raymond Hickey (ed.), *Motives for Language Change*, 54–70. Cambridge: Cambridge University Press.

Dobson, Eric J. 1957. *English Pronunciation 1500-1700*: *Volume II: Phonology*. Oxford: Clarendon Press.

Fisiak, Jacek. 1968. *A Short Grammar of Middle English*: *Part One: Graphemics, Phonemics and Morphemics*. Warsaw: Panstwowe Wydawnictwo Naukowe.

Kroch, Anthony. 1989. Reflexes of Grammar in Patterns of Language Change. *Language Variation and Change* 1. 199–244.

Kroch, Anthony, Beatrice Santorini & Lauren Delfs. 2004. *Penn-Helsinki Parsed Corpus of Early Modern English*. http://www.ling.upenn.edu/hist-corpora/.

Kroch, Anthony & Ann Taylor. 2000. *Penn-Helsinki Parsed Corpus of Middle English*. http://www.ling.upenn.edu/hist-corpora/.

Minkova, Donka. 1991. *The history of final vowels in English: The sound of muting*. Berlin: Walter de Gruyter.

Mossé, Fernand. 1991. *A handbook of Middle English*, 10th edn. Baltimore, Md.: Johns Hopkins University Press.

R Development Core Team. 2013. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing.

Wang, William & James Minett. 2005. The invasion of language: Emergence, change and death. *Trends in Ecology and Evolution* 20. 263–269.

Imperfect tense and evidentiality in Italian: the case of the "account of an account"

Laura Baranzini & Claudia Ricci

(FNS Switzerland, University of Turin & University of Neuchâtel)

Among the uses of the imperfect tense in Romance languages, some share the possibility to express alone – within a text in which this tense is used exclusively – all aspectual perspectives, notably both perfectivity and imperfectivity. This possibility is notably available in Italian, where it occurs in a variety of configurations. Our aim is to analyze these uses (which we designate as "account of an account"; for a more detailed categorization, see Baranzini & Ricci 2015), to bring to light the conditions and constraints on their occurrence and their interpretive effects.

These uses of the imperfect occur in different contexts: the account of real events within a narrative-summary framework (e.g. medical and police reports, news articles, *a posteriori* accounts of documentaries); the account of fictional events within a narrative-summary framework (e.g. the account of a novel, a movie, a dream, a game, etc.).

Conversely, such uses are not compatible with accounts of real events having been directly experienced, witnessed or spontaneously heard by the speaker.

(1) […] sul secondo canale ho visto un documentario dove una donna, in seguito a un grave incidente, diventava prima sorda poi cieca. [On the second channel, I saw a documentary about a woman who, following a serious accident, first become-IMPF deaf, then blind.]

(2) *Anni fa, in seguito a un grave incidente, diventavo prima sorda poi cieca. [Years ago, following a terrible accident, I first become-IMPF deaf, then blind.]

Based on authentic examples, our analysis will highlight the criteria allowing an account to be made entirely by using the imperfect exclusively and those allowing for the alternation of the imperfect and perfective tenses. As for contexts allowing for both possibilities, we will compare pairs of utterances and induce context variation to describe their respective effects of meaning.

The relevant parameters considered in analyzing these two types of context and the interpretive effects of the two possible configurations are at least three: i) the 'epistemic' characterization of events (real or fictional); ii) their textual connotation (existence of a global narrative framework), iii) speaker's commitment on the enunciation level.

The description of the functioning of these accounts will be followed by a report of the outcome of a survey involving native speakers of Italian; our data show how present, imperfect and perfective tenses alternate in the account of events within different perspectives. We will show that the 'accounts of accounts' using the imperfect tense appear to specialize in the focalization of first level accounts

becoming in turn the object of second level accounts; this allows for including an evidential feature in the description of the imperfect. This evidential perspective can be related to the descriptions of the imperfect involving the notion of focalization (e.g. Saussure & Sthioul 1999, 2005), thus linking the above-mentioned uses with the 'descriptive' uses of this tense.

The results of our analysis will enrich the broad – but far from being exhaustive – description of the functioning of this particularly complex morphological Romance tense.

References

Baranzini, Laura (2016). "Imparfait et imperfectivité en italien". *Syntaxe et sémantique* 17, pp. 37-56.

Baranzini, Laura & Ricci, Claudia (2015). "Semantic and pragmatic values of the Italian imperfetto: towards a common interpretive procedure". *Catalan Journal of Linguistics* 14, pp.33-58.

Bazzanella, Carla (1990). "Modal uses of the Italian Indicativo imperfetto in a pragmatic perspective". *Journal of pragmatics* 14,3: 237-255.

Berretta, Monica (1992). "Sul sistema di tempo, aspetto e modo nell'italiano contemporaneo". In: Moretti, Bruno; Petrini, Dario; Bianconi, Sandro (eds). *Linee di tendenza dell'italiano contemporaneo*. Roma: Bulzoni, pp. 135-153.

Bertinetto, Pier Marco (1986). *Tempo, aspetto e azione nel verbo italiano. Il sistema dell'indicativo*. Firenze: Accademia della Crusca.

Labeau Emmanuelle and Larrivée Pierre (eds.) (2005). *Nouveaux développements de l'imparfait*, Amsterdam/New York: Rodopi.

Lo Duca, Maria Giuseppina (1995). "Imperfetto 'ludico' e altri tempi: una prospettiva testuale". In: Giacalone Ramat, Anna and Crocco Galèas, Grazia (eds.). *From Pragmatics to Syntax: Modality in Second Language Acquisition*. Tubingen: Narr, pp. 173-194.

Patard, Adeline (2014). "When tense and aspect convey modality. Reflections on the modal uses of past tenses in Romance and Germanic languages". *Journal of pragmatics* 71: 69-97.

Ronconi, Alessandro (1944-45). "L'imperfetto di modestia e l'imperfetto 'irreale'". *Lingua nostra* 6: 64-66.

Saussure, Louis de and Sthioul, Bertrand (1999). "L'imparfait narratif: point de vue (et images du monde)". *Cahiers de praxématique* 32: 167-188.

Saussure, Louis de and Sthioul, Bertrand (2005). "Imparfait et enrichissement pragmatique". In: Labeau, Emmanuelle and Larrivée, Pierre (eds.) (2005)

Squartini, Mario (2001). "The internal structure of evidentiality in Romance". *Studies in Language* 25,2: 297-334.

Tasmowski-De Ryck, Liliane (1985). "L'imparfait avec et sans rupture". *Langue française* 67: 59-77.

Touratier, Christian (1998). "L'imparfait. Temps du passé non marqué". *Cahiers Chronos* 2: 21-28.

Vetters, Carl (2009). "L'interaction entre sémantique et pragmatique dans l'interprétation des temps du passé en français". In: Verbeken, Dominique (ed.). *Entre sens et signification*. Paris : L'Harmattan, pp. 11-25.

Listing and reformulating. The role of categories to construct reference

Alessandra Barotto

(University of Pavia/University of Bergamo)

The present contribution aims to investigate how the listing of exemplars (cf. Mauri 2017, Bonvino et al. 2009) and anaphoric reformulation are employed to construct specific reference in real-time interaction. Specifically, using data from Italian, we identify and monitor from what types of linguistic clues users catch information to direct inferential processes towards the construction of context-relevant categories (Barsalou 1983). Previous investigations suggest that clues are very frequent whenever users create categories from exemplars (see Barotto 2016, out of 664 occurrences in Japanese, the 53% exhibits contextual clues).

Recent linguistic studies have argued against the notion that referential meaning is independent from the context and transcends the single interaction. Under this respect, Croft and Cruse (2004) have claimed that the construction of reference is a dynamic process deeply rooted in the situational context. More precisely, reference (cf. Leech 1974) is constructed online by language users through a dynamic step by step process, where the speaker directs the inference of the hearer by providing contextual clues to achieve the desired interpretation. Consider (1).

(1)   *Infatti il bambino non abortito non viene registrato, il che significa che non potrà andare a scuola, non godrà dell'assistenza sanitaria, eccetera, diventerà cioè un cittadino di serie B [...].*
        (lit.) 'In fact, the baby who hasn't been miscarried won't be registered, that means that (the baby) won't be able to go to school, won't benefit from the healthcare system, etcetera, that is, he or she will be a second-class citizen [...].' (itTenTen)

The speaker provides first an abstract statement: the baby won't be registered. Then, she clarifies the reference using some concrete exemplars of the category 'rights that non-citizens cannot enjoy': "(the baby) won't be able to go to school, won't benefit from the healthcare system". She makes explicit the process by means of *il che significa* ("that means") and the non-exhaustive nature of the list by using *eccetera*. Finally, she reformulates the reference by providing an explicit clue that specifies the property shared by the previous exemplars: "being a second-class citizen".

For this analysis, we apply a corpus-based methodology to the [ki'parla] corpus of spoken Italian. We monitor strategies commonly used to provide lists of exemplars (see Barotto and Mauri 2016), such as exemplifying constructions (e.g., *per esempio*) and general extenders (e.g., *eccetera*). We also monitor strategies that mark reformulation (e.g., *il che significa*). We consider: *i*) the types of clues (e.g., category labels or abstract reformulations), *ii*) the numbers of clues, *iii*) the position of the clues regarding the exemplars, *iv*) if the clues are provided by the same user or if the reformulation involves co-operation between users.

We will conclude arguing that, in real-time interactions, reference tends to be reformulated several times using both a bottom-up approach through the mention of concrete exemplars, and a top-down approach using abstract concepts to verify the bottom-up process or to include further information stored in long-term memory.

References

[ki'parla] – Corpus of Spoken Italian: http://www.leadhoc.org/index.php/data-access/corpus-of-spoken-italian/

Barotto, Alessandra. 2016. *Exemplification and categorization: the case of Japanese*. PhD dissertation.

Barotto, Alessandra and Caterina Mauri. 2016. *Constructing lists for constructing categories*. Paper presented at the 50th Società Linguistica Italiana (SLI) Conference, Milan, September 22-24, 2016.

Barsalou, Lawrence W. 1983. Ad hoc categories. *Memory and Cognition* 11/3. 211-227.

Bonvino, Elisabetta, Francesca Masini, Paola Pietrandrea. 2009. List Constructions: a semantic network. Paper presented at the conference Grammars in Construction(s) - 3rd International AFLiCo Conference. University Paris Ouest - Nanterre - La Défense - May 27-29, 2009

Croft, William A. and Alan D. Cruse. 2004. *Cognitive Linguistics.* Cambridge: Cambridge University Press.

Leech, Geoffrey. 1974. *Semantics. the study of meaning.* England: Harmons. Worth, Penguins Book.

Mauri, Caterina. 2017. Building and interpreting ad hoc categories: a linguistic analysis. In Blochowiak, J., Grisot, C., Durrleman, S., Laenzlinger, C. (Eds.), *Formal models in the study of language*, 297-326. Berlin: Springer.

Semi-insubordination, insubordination and subordination: interrelations and terminological issues

Karin Beijering

(Research Foundation - Flanders (FWO) / University of Antwerp)

The notion of semi-insubordination (Van linden & Van de Velde 2014: 231) presupposes both subordination and insubordination. Subordination denotes a hierarchical/grammatical dependency, "in which a margin is wholly included within a constituent of the nucleus" (Hopper & Traugott 2003: 177). Insubordination concerns non-canonical uses of subordinate clauses, i.e. the independent use of formally dependent clauses (Evans 2007: 367).

This paper deals with one subtype of semi-insubordination in Dutch and Norwegian, viz. formally subordinate clauses introduced by the general conjunction 'that', preceded by just one element, as illustrated in (1).

(1)   *Hva er det mest negative med curling?*   (Norwegian)
        lit. 'What is the most negative thing about curling?
        Kanskje at *det tar litt lang tid.*
        Perhaps that it takes a little long time.*'*

The central question in this paper is how to account for the peculiar structural status of semi-insubordinate 'that'-constructions. In order to answer this question, I will outline the semantic, structural and discursive properties of these constructions by reviewing previous analyses and explanations of semi-insubordination constructions (e.g. Bos 1963; Ramat & Ricca 1998; Aelbrecht 2006; Julien 2009; Van linden & Van de Velde 2014) against a comparative corpus-based investigation of semi-insubordinate 'that'-constructions in Dutch and Norwegian. This involves considerable rethinking and revising of some basic assumptions about the structural status of semi-insubordination and its relation to insubordination and subordination.

It will be shown that semi-insubordinate 'that'-constructions cannot be adequately accounted for within previous sentence-based accounts of its structural status because these analyses assume a hierarchical/grammatical dependency between the 'minimal matrix clause' and the 'that'-clause. However, since semi-insubordinate 'that'-constructions turn out to be pragmatically dependent on prior utterances, these constructions are best analyzed as discourse units. An interesting concept in this respect is the distinction between 'predication subordination' and 'discourse subordination' (Lindström & Londen 2008: 146).

The Norwegian corpus data clearly point to a discourse-level use of the conjunction 'that' as well as sequential dependence on prior statements for the attested semi-insubordinate *at*-constructions. In Norwegian, the conjunction 'that' is in general an optional element in complement constructions. However, *at* tends to be non-omissible from the corpus examples of semi-insubordinate *at*-constructions. Moreover, the Norwegian *at*-clauses are not consistently marked as syntactically 'subordinate clauses'. These observations are not immediately evident from the Dutch corpus data because the complementizer *dat* is obligatory in complement clauses, which therefore always triggers subordinate word order in *dat*-clauses.

These insights also require further reflection on the question of whether 'pragmatically dependent' attestations of semi-insubordinate 'that'-constructions should be considered instances of semi-insubordination, or whether this notion should be reserved for syntactic and pragmatic independent instances only (cf. D'Hertefelt & Verstraete (2014) on 'expressive' and 'elaborative' insubordinate 'that'-constructions). On the latter view, only sentences like (2) would qualify as semi-insubordination proper:

(2)   ***Wat prachtig*** *dat hij dat nog mocht meemaken!*   (Dutch)
        lit. 'How lovely he would live to experience this!'
        [adapted after Van linden & Van de Velde (2014: 227)]

This observation suggests a similar division into 'elaborative', in (1), and 'expressive', in (2), constructions for semi-insubordination as well.

References

Aelbrecht, Lobke. 2006. IP-ellipsis in Dutch dialects: X + that-clause. In: Van de Wijer, Jeroen & Bettelou Los (eds.) *Linguistics in the Netherlands 2006*. Amsterdam: Benjamins, 1-14.

Bos, Gijsbertha F. 1963. Een verwaarloosd zinstype. In: De Groot A.W. & H. Schultink (eds.) *Studies op het gebied van het hedendaagse Nederlands*, 174-194. Den Haag: Mouton.

D'Hertefelt, Sarah & Jean-Christophe Verstraete. 2014. Independent complement constructions in Swedish and Danish: Insubordination or dependency shift? *Journal of Pragmatics* 60, 89-102.

Evans, Nicholas. 2007. Insubordination and its uses. In: Nikolaeva, Irina (ed.) *Finiteness. Theoretical and Empirical Foundations*, 366-432. Oxford: Oxford University Press.

Hopper, Paul J. & Elizabeth Closs Traugott. 2003 [1993]. *Grammaticalization*. Cambridge: Cambridge University Press.

Julien, Marit. 2009. Plus(s) at(t) i skandinaviska – en minimal matris. *Språk och Stil* 19, 124-141.

Lindström, Jan & Anne-Marie Londen. 2008. Constructing reasoning: the connectives *för att* (causal), *så att* (consecutive) and *men att* (adversative) in Swedish conversations. In Leino, Jaakko (ed.) *Constructional Reorganization*. Amsterdam: Benjamins, 105-152.

Ramat, Paolo & Davide Ricca. 1998. Sentence adverbs in the languages of Europe. In: van der Auwera, Johan & Dónall P. Ó Baoill (eds.) *Adverbial constructions in the languages of Europe*. Berlin: Mouton de Gruyter, 187-273.

Van linden, An & Freek Van de Velde. 2014. (Semi-)autonomous subordination in Dutch: Structures and semantic-pragmatic values. *Journal of Pragmatics* 60, 226-250.

Just Syntax? On the co-referential ambiguity of Russian Adverbial Participles

Sandra Birzer

(Innsbruck University)

Despite the fact that normative approaches prescribe that the adverbial participle (henceforth AP) be co-referent with the first argument (in the nominative) of its matrix sentence, APs are and have always been syntactically ambiguous in the sense that their covert subject may be co-referent with an argument of the matrix clause other than the first one (cf. Yokoyama 1984; Rappaport 1984; Babby & Franks 1998). It has been assumed that the respective matrix clause argument is identified on semantic grounds (cf. especially Rappaport 1984); Babby and Franks (1998) try to explain all kinds of AP co-references with the help of a generative syntactic model regardless of semantics.

We would like to argue that the identification of possible co-referent matrix clause arguments relies on an interaction between semantic (scripts) and the syntactic position of the AP as well as with the complement structure of the matrix clause.

In (1) the semantic script is "neutral" in the sense that both spouses are equally likely to come home late; the linearly closer constituent (the subject in 1a and the object in 1b) is more likely to be interpreted as AP subject.

(1a)   *Vernuvšis'   domoj pozdno,   čto   ty   skažeš'   žene?*
        return-ap   home   late   what   you-nom   say   wife-dat
        'Coming home late, what will you say to your wife?'

(1b)   *Čto   ty   skažeš'   žene,   vernuvšis'   domoj pozdno?*
        what   you-nom   say   wife-dat   return-ap   home   late
        'What will you say to your wife, coming home late?'

Secondly, in object control verb constructions with semantically neutral contexts (2), the AP position determines whether the subject of the control verb (2a) or the infinitive (2b) is interpreted as AP subject.

(2a)   *Sidja   za obščim stolom,   sestra   ubedila   brata   ne kurit'.*
        sit-ap   at the common table   sister-nom   convinced   brother-acc   not to smoke
        'Sitting at the common table, the sister convinced the brother not to smoke.'

(2b)   *Sestra   ubedila   brata   ne kurit',   sidja   za obščim stolom*
        sister-nom   convinced   brother-acc   not to smoke   sit-ap   at the common table
        'The sister convinced the brother not to smoke, sitting at the common table.'

In cases where object control co-occurs with a semantic frame favouring the infinitive subject as covert AP subject (3a), linear closeness of AP and control verb subject even makes the acceptability of the sentence doubtful (3b).

(3a)   *Miša   zastavil Annu   uezžat',   ne   proščajas'   s*
        Misha-nom   forced Anna-acc   leave   not   say_goodbye-ap   with
        mater'ju.
        mother
        'Misha forced Anna to leave without saying goodbye to the mother.'

(3b)   *?Ne   proščajas'   s   mater'ju,   Miša   zastavil*
        not   say_goodbye-ap   with   mother   Misha-nom   forced

> *Annu   uezžat'.*
> Anna-acc   leave
> 'Without saying goodbye to the mother, Misha forced Anna to leave.'

Based on the results of an experiment to be conducted with Russian L1 speakers we will establish an implicational scale of the factors a) linear closeness of AP to matrix object; b) semantic frame "neutral" or favouring matrix object as AP subject; c) object control construction. The experiment will be based on data from the Russian National Corpus and will comprise co-reference tracking as proposed by Chernova et al. 20016 for other adjunct types and acceptability judgments on a scale with endpoints (cf. Dieser 2016). Since familiarity with normative approaches may be a factor in the acceptability judgments, the informants will represent different educational backgrounds.

References

Babby, L. & St. Franks. 1998. The Syntax of Russian Adverbial Participles Revisited. *The Slavic and East European Journal*, 43/3, 483-516.

Chernova et al. – Чернова, Д. А. и др. 2016. Экспериментальные исследования грамматики: синтаксический анализ неоднозначных предложений. *Вопросы языкознания*, 2016/6, 36-50. [Experimental studies of grammar: Syntactic analysis of ambiguous sentences. *Voprosy jazykoznanija*, 2016/6, 36-50.]

Dieser, E. 2016. Some "cases of doubt" in Russian grammar from different methodological perspectives. // Anstatt, T. et al. (eds.) *Slavic Languages in Psycholinguistics. Chances and Challenges for Empirical and Experimental Research*. Tübingen. 151-174.

Rappaport, G. C. 1984. *Grammatical Function and Syntactic Structure: The Adverbial Participle of Russian. Columbus*: Slavica Publishers.

Yokoyama – Йокояма, О. 1984. *В защиту запретных деепричастий*. [In defencse of forbidden adverbial participles.] // Flier, S. (ed.) *American Contributions to the Ninth International Congress of Slavists: Kiev, September 1983*. vol. I. 373-381.

Assumed evidential expressions with *verba dicendi*: Evidence from English and French

Zeltia Blanco-Suárez & Mario Serrano-Losada
(Universidad de Cantabria & Universidade de Santiago de Compostela)

Speakers may resort to manifold strategies to indicate the obviousness of their statements and to suggest that the information they share is known, expected or self-evident. English *needless to say* (1) and French *il va sans dire* (2) illustrate such possibilities:

(1) *About six months into our relationship, his latest book came out. He asked me not to read it, but,* **needless to say**, *I downloaded an electronic copy as soon as I could* (coca, 2011)

(2) *Je n'ai dans mes bagages – légers,* **il va sans dire** *– nulle autre référence que celle de ma famille, l'adresse des avocats.* (frantext, 2009)
('Inside my luggage – which is light, of course – [there is] no other reference than that of my family, the lawyers' address.')

Both expressions are indirect assumed evidential strategies, i.e., they are used to express assumption, logical reasoning or general knowledge (Aikhenvald 2004: 63). By using them, the speakers are not only providing evidence for what they are saying; they are also emphasizing shared worldviews or experiences and drawing attention to aspects of general knowledge. Moreover, these expressions feature *verba dicendi* and are rough equivalents to stance adverbs such as *obviously* and *evidently*, serving as hedging devices used to tone down assertions (Adolphs 2007: 257) and to save face (cf. Traugott 2012; Degand 2014). With these expressions, speakers convey their 'attitude towards, or opinion about, the truth of a proposition expressed by a sentence' (Simpson 1993: 47). Furthermore, they have an interactional and intersubjective function (cf. López-Couso 2010; Traugott 2010) and are aimed to assess the degree of endorsement towards the content of proposition (Dehé & Kavalova 2007: 1).

The aim of this corpus-based study is twofold. On the one hand, it sets out to explore the rise and development of *needless to say* and *il/cela va sans dire* in English and French, respectively. On the other, it looks into the frequency and distribution of both expressions in the contemporary language, exploring also in which ways the pragmatic and syntactic behavior of these constructions might differ or be alike to that of synonymous evidential adverbs such as *of course*, *obviously*, and *evidently* (cf. González-Álvarez 1996; Simon-Vandenbergen & Aijmer 2007; Cornillie 2009, 2010, among others).

Our preliminary data suggest that these forms have undergone a process of (inter)subjectification over time to acquire an essentially interactional function, aimed to seek agreement with the interlocutor(s). Moreover, their development suggests that although they have their origins in matrix clause structures as in (3) and (4) below, they are nowadays overwhelmingly used as parenthetical clauses (cf. Dehé & Kavalova 2007; López Couso & Méndez Naya 2014), as in (1) and (2) above.

(3) ***Il va sans dire*** *que les salons étaient resplendissants de bougies*, […] FRANTEXT, 1846)
(4) *It is **needless to say** that thousands and thousands have migrated to other places*. (OED, 1770)

Data for the present paper have been drawn from several diachronic and synchronic sources, including eebocorp, clmet 3.0, coha and coca for English, and frantext for French.

References and sources

Adolphs, Svenja. 2007. *Definitely maybe*: Modality clusters and politeness in spoken discourse. In Paul Skandera (ed.). *Phraseology and culture in English*. Berlin: Mouton de Gruyter, 257–272.

Aikhenvald, Alexandra. 2004. *Evidentiality*. Oxford: Oxford University Press.

Chafe, Wallace. 1986. Evidentiality in English conversation and academic writing. In Wallace Chafe & Johanna Nichols (ed.). *Evidentiality*: *The linguistic coding of epistemology*. Norwood, NJ: Ablex, 261-272.

CLMET 3.0 = *The Corpus of Late Modern English Texts*, v. 3.0, compiled by Hendrik De Smet, Hans-Jürgen Diller & Jukka Tyrkkö. Available online at: https://perswww.kuleuven.be/~u0044428/.

COCA = *Corpus of Contemporary American English*, compiled by Mark Davies. 2008-. Available online at: http://corpus.byu.edu/coca/.

COHA = *Corpus of Historical American English*, compiled by Mark Davies. 2010-. Available online at: http://corpus.byu.edu/coha/.

Cornillie, Bert. 2009. Evidentiality and epistemic modality: On the close relationship between two different categories. *Functions of Language* 16(1), 44–62.

Cornillie, Bert. 2010. An interactional approach to evidential and epistemic adverbs in Spanish conversation. In Gabriele Diewald & Elena Smirnova (eds.). *The linguistic realization of evidentiality in European languages*. Berlin: Mouton de Gruyter, 309-330.

Degand, Liesbeth. 2014. So very fast very fast then. Discourse markers at left and right periphery in spoken French. In Kate Beeching & Ulrich Detges (ed.). *Discourse functions at the left and right periphery*: *Crosslinguistic investigations of language use and language change*. Leiden: Brill, 151-178.

Dehé, Nicole & Yordanka Kavalova (eds.). 2007. *Parentheticals*. Amsterdam: John Benjamins.

EEBOCorp = *Early English Books Online Corpus* 1.0, compiled by Peter Petré. 2013. Available online at: https://lirias.kuleuven.be/handle/123456789/416330.

FRANTEXT = *Base textuelle FRANTEXT*. ATILF - CNRS & Université de Lorraine. Available online at: http://www.frantext.fr/.

González-Álvarez, Dolores. 1996. Epistemic disjuncts in Early Modern English. *International Journal of Corpus Linguistics* 1(2), 219-256.

López-Couso, María José. 2010. Subjectification and intersubjectification. In Andreas H. Jucker & Irma Taavitsainen (eds.). *Historical pragmatics*. Berlin: Mouton de Gruyter, 127-163.

López-Couso, María José & Belén Méndez-Naya. 2014. From clause to pragmatic marker: A study of the development of *like*-parentheticals in American English. *Journal of Historical Pragmatics* 15(1), 66-91.

OED = *Oxford English Dictionary Online*. OUP. Available at: http://www.oed.com/.

Simon-Vandenbergen, Anne-Marie & Karin Aijmer. 2007. *The semantic field of modal certainty: A corpus-based study of English adverbs*. Berlin: Mouton de Gruyter.

Simpson, Paul. 1993. *Language*, *ideology and point of view*. London: Routledge.

Traugott, Elizabeth C. 2010. Revisiting subjectification and intersubjectification. In Kristin Davidse, Lieven Vandelanotte & Hubert Cuyckens (eds.). *Subjectification*, *intersubjectification and grammaticalization*. Berlin: Mouton de Gruyter, 29-70.

Traugott, Elizabeth C. 2012. Intersubjectification and clause periphery. *English Text Construction* 5(1), 7-28.

Upward Agree versus Downward Agree. The case of postverbal subjects in existential sentences in Romanian

Adina Camelia Bleotu
(University of Bucharest)

The aim of this paper is to investigate certain agreement properties related to postverbal subjects in Romanian, and argue, on the basis of (un)grammaticality judgments on agreement in existential and copulative sentences, that postverbal subjects engage in a different type of agreement relation with the verb than preverbal subjects.

In my analysis, I looked at copular and existential sentences, which I analyzed as involving a SC- for copular sentences, I embraced a Moro SC analysis (1997), and for existential sentences, I embraced Kallulli's analysis (2008), where the SC has the DP as the subject and the location as the predicate. I adopted the view that in copular sentences, there is Upward Agree, while in existentials, the subject stays in situ, and there is downward Agree, a type of Agree which may be defective (Bjorkman & Zeijlstra 2014). In order to test this difference, a query was conducted on 20 native Romanian speakers, to see which sentence (*Cărţile e frumoase* "Books is beautiful" and *E nişte cărţi pe masă* "Is some books on table") was less ungrammatical in their view. Although considered ungrammatical, the second sentence was deemed more acceptable by native speakers.

The reasons for this are the existential (rather than predicative) meaning of the verb *to be* in existential sentences, the postverbal positioning of the pivot noun, as well as the use the quantifier *nişte* ("some").

In Romanian, the verbs *a exista* "to exist" and *a se afla* ("to be located"), both used in paraphrases of existential sentences with the verb *to be*, have the same form both in the 3rd person singular and plural (*există, se află*). Moreover, singular agreement is favoured by the postverbal positioning of the pivot noun, also found with coordinated DPs if agreement is by proximity (*E o carte şi un caiet pe masă* "Is a book and a notebook on table"). Unlike upward agree, downward agreement may thus be argued to defective to a certain extent, suggesting that c-command is less strict than Spec-head. Also, the use of the quantitative adjective *nişte*, combining both with singular and plural pivot nouns, favours this interpretation. The effect of the quantifier has been studied at length for Hebrew (Danon 2012, 2013), where the existential verb exhibits agreement either with the noun or the quantifier modifying it (although not all quantifiers allow this variability), something problematic for a structural account of agreement. Similar facts can be noted for Romanian.

Variation in agreement in existential sentences is a widely known and well-documented phenomenon (Bentley 2013, Claes 2014 a.o.), being present both cross-linguistically (the personal *ci sono* in Italian versus the impersonal *il y a* in French) and within the same language (in Spanish, for instance, *había árboles* versus *habían fiestas*, or in English, *There are nice things to discover* versus *There's things I cannot resist*). Thus, the data on ungrammaticality from Romanian seems to fit in the array of already existing data from languages worldwide.

References

Bentley, Delia (2013). "Subject canonicality and definiteness effects in Romance there-sentences." In *Language* 89.4, 675-712.

Bjorkman, Bronwyn & Zeijlstra, Hedde (2014). "Upward Agree is Superior". Available online: http://ling.auf.net/lingbuzz/002350

Claes, Jeroen (2014). "A Cognitive Construction Grammar approach to the pluralization of presentational *haber* in Puerto Rican Spanish". In *Language Variation and Change* 26, 219–246.

Danon, Gabi (2012). "Nothing to Agree on: Non-agreeing subjects of copular clauses in Hebrew (2012)". *Acta Linguistica Hungarica* 59 (1-2), 85-108

Danon, Gabi (2013). "Agreement alternations with quantified nominals in Modern Hebrew". *Journal of Linguistics 49 (1), 55- 92*

Danon, Gabi (2013). "Hebrew QNP Agreement. Towards an Empirically Based Analysis". Available online: http://bwpl.unibuc.ro/uploads_ro/886/2_BWPL_2013_1_Danon_18p.pdf

Dalina Kallulli (2008). "There is secondary predication in *There*-sentences". *Proceedings of the 26th West Coast Conference on Formal Linguistics*, ed. Charles B. Chang and Hannah J. Haynie, 279-287. Somerville, MA: Cascadilla Proceedings Project.

Moro, Andrea. (1997): *The Raising of Predicates: Predicative Noun Phrases and the Theory of Clause Structure.* Cambridge: Cambridge University Press.

Verb cluster word order in Early-Modern Frisian

Jelke Bloem

(University of Amsterdam)

Verb clusters display a lot of word order variation in the West Germanic languages. In Dutch, when one has two verbs in a cluster (an auxiliary and a main verb) both logical orders are possible. The word order preference in standard Dutch has been shifting from auxiliary-final verb clusters to auxiliary-first clusters since around the year 1500 (Coussé, 2008), allowing the use of both orders. In West-Frisian, such a shift has also been observed, but it appears to be much more recent, and influenced by language contact with Dutch (de Haan, 1996).

(1)   Anne sei dat er my **sprekke wol**
        Anne said that he me speak   want
        'Anne said that he wants to speak to me'
(2)   Anne sei dat er my **wol sprekke**
        Anne said that he me want speak

Frisian speakers now use auxiliary-first two-verb clusters, as in example 2 above. It has even been found that Frisian bilingual children have similar word order preferences in their Frisian as in their Dutch (Meyer et al., 2015), producing both orders. Prescriptively, only the order in example 1 is considered grammatical in Frisian.

However, in older Middle Frisian texts, written before the order preferences in Dutch started shifting, the 'ungrammatical' auxiliary-first order also appears (e.g. the Elder Skeltenariucht from around the year 1300, where it is used about 10% of the time) This raises a question: is the modern use of this word order really a new development taken from Dutch, or rather a continuation or resumption of an older language-internal development? To study this, we have to consider an intermediate stage of the language, which is Early-Modern Frisian. Studying a 17th century essay, Hoekstra (2012) found that 10% of the verb clusters in this text are auxiliary-first, taking this as a Dutch contact effect. However, this proportion of orders is no different from the Elder Skeltenariucht, so this might be the same older phenomenon.

To be able to tell the difference between language-internal effects and various types of contact effects, we would need to see if the Early-Modern Frisian auxiliary-first orders have similar usage patterns as the modern Dutch ones. If they do, this would point to widespread contact due to bilingualism, as in modern Frisian, and if they don't, this would point either to language-internal effects or learned borrowing by educated writers. To this end, we have extracted verb clusters from a corpus of Early-Modern Frisian texts, the Integrated Language Database[1], including both poetry and prose by the same author to control for individual differences. Our results show that auxiliary-first clusters are much more frequent in poetry (57% rather than 10%) and in rhyming or idiomatic expressions in the prose texts. Furthermore, we did not find much evidence for an effect of clause length or morphological complexity, unlike in modern Dutch, where the auxiliary-first order appears to be used in contexts that are difficult to process to facilitate processing (Bloem et al., 2017).

Given these two results, it is more plausible that the auxiliary-first order is mainly a stylistic device used by these authors in the written modality, rather than a construction with the function of decreasing language processing load as in Dutch. We conclude that there are two types of language contact at play here: the auxiliary-first word orders used in Early-Modern Frisian texts may have come from Dutch, but as learned borrowings, a form of late language acquisition. In contrast, the modern Frisian situation appears to be a case of contact-induced change due to widespread bilingualism, where the borrowed word order is acquired early and is therefore fully integrated into the speakers' grammar.

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[1]   https://argyf.fryske-akademy.eu/en/undersyk/taalkunde/yntegrearre-taaldatabank/

References

Bloem, J., Versloot, A., & Weerman, F. (2017). Verbal cluster order and processing complexity. *Language Sciences*, 60, 94-119.

Coussé, E. (2008). *Motivaties voor volgordevariatie. Een diachrone studie van werkwoordvolgorde in het Nederlands* (Doctoral dissertation, Ghent University).

De Haan, G. J. (1996). Recent changes in the verbal complex of Frisian. *NOWELE. North-Western European Language Evolution*, *28*(1), 171-184.

Hoekstra, E. (2012). Reade wurdfolchoarders en dêrmei gearhingjende aspekten yn 17e-ieusk Frysk. In ûndersyk nei de tiidwurdkloft yn Gysbert Japicx syn" Yen suwnerlinge forhânlinge Fen it Libben In fenne Deade". *It Beaken. Tydskrift fan de Fryske Akademy*, *72*.

Meyer, C., de Haan, D., Faber, M., & Weerman, F. (2015). Embracing ascending orders: Verb clusters in bilingual acquisition. Presented at Generative Approaches to Language Acquisition, Université de Nantes.

Accusative and dative Experiencers in Polish

Anna Bondaruk

(John Paul II Catholic University of Lublin)

Crosslinguistically, Object Experiencers (OE) come in two guises - accusative or dative. In the literature, the two types of OEs are commonly treated as occupying a higher structural position than the Stimulus (Belletti and Rizzi 1988, 2012, Reinhart 2001, Landau 2010). Accusative and dative Experiencers also display similar properties as regards a number of syntactic phenomena, which has led Landau (2010) to treat them as oblique.

The aims of this paper are twofold. On the one hand, an attempt is made to examine the structural position of accusative and dative Experiencers in Polish. On the other, the behaviour of the two types of Polish OEs is compared with respect to control into adjunct clauses and depictives, extraction, and passivisation.

The evidence based on Condition A and C effects, and pronominal variable binding indicates that both accusative and dative Experiencers in Polish occupy a lower position than the Stimulus (Alexiadou and Iordăchioaia 2014, Iordăchioaia, Alexiadou and Soare 2015). Pronominal variable binding, illustrated in (1) and (2) below, offers particularly strong support for this claim.

(1)   a.   *[Jego$_i$ długi]   martwią   [każdego   przedsiębiorcę]$_i$.
           his   debt-nom   worries every   entrepreneur-acc[2]
           'His debt worries every entrepreneur.'
    b.   [Każdego   przedsiębiorcę]$_i$ martwią   [jego$_i$ długi].
           every   entrepreneur-acc   worries his debt-nom
           'His debt worries every entrepreneur.'
(2)   a.   *[Jego$_i$ zabawki]   podobają   się   [każdemu   dziecku]$_i$.
           his   toys-nom   appeal   refl every   child-dat
           'His toys appeal to every child.'
    b.   [Każdemu   dziecku]$_i$ podobają   się   [jego$_i$ zabawki].

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[2] The following abbreviations have been used: acc − accusative, dat − dative, nom- nominative, and refl - reflexive.

every	child-dat	appeal	refl	his	toys-nom

'His toys appeal to every child.'

The bound variable interpretation is not possible in (1a) and (2a), and becomes available once the accusative or dative Experiencer is scrambled, as in (1b) and (2b). If the Experiencer were higher than the Stimulus, the bound reading should be licensed in (1a-b) and (2a-b), contrary to fact. The scrambling of the Experiencer in (1b) and (2b) targets an A-position (Witkoś 2007, 2008), thereby making the Experiencer a licit binder for the pronominal variable. The impossibility of the accusative and dative Experiencer to bind the subject-oriented anaphor *swój* 'self's', as in (3a) and (3b) is not a problem for this account, if we assume that the presence of the anaphor is blocked in (3a) and (3b) by the anaphor agreement effect (Rizzi 1990).

(3) a. Marka$_i$ martwią *swoje finanse /jego$_i$ finanse.
   Mark-acc worry *self's finances-nom /his finances-nom
   'His own finances worry Mark.'
 b. Dzieciom$_i$ podobają się *swoje$_i$ zabawki /ich$_i$ zabawki
   children-dat appeal refl *self's toys /their toys
   'Their toys appeal to the children.'

Both accusative and dative OEs in Polish may control PRO in adjunct clauses and depictives, which, however, is not an exclusive property of Experiencers in this language. However, only accusative Experiencers allow extraction from within and can be passivised (with non-stative OE verbs), which points towards the conclusion that dative Experiencers in Polish are oblique. Since Polish lacks preposition stranding, dative Experiencers contained within a PP resist both subextraction and passivisation.

References

Alexiadou, Artemis, and Gianina Iordăchioaia. 2014. The psych causative alternation. *Lingua* 148: 53-79.

Belletti, Adriana, and Luigi Rizzi. 1988. Psych-verbs and θ theory. *Natural Language and Linguistic Theory* 6: 291–352.

Belletti, Adriana, and Luigi Rizzi. 2012. Moving verbal chunks in the low functional field. In *Functional heads and the cartography of syntactic structures*. vol. 7, edited by Laura Brugé, Anna Cardinaletti, Giuliana Giusti, Nicola Munaro and Cecilia Poletto, 129-137. Oxford: Oxford University Press.

Iordăchioaia, Gianina, Artemis Alexiadou, and Elena Soare. 2015. The structural source of stative nominalizations from psych verbs. In *Taming the TAME systems.* Cahiers Chronos 27, edited by Emmanuelle Labeau and Qiaochao Zhang, 137-160. Leiden: Brill Rodopi.

Landau, Idan. 2010. *The locative syntax of Experiencers*. Cambridge, MA: MIT Press.

Reinhart, Tanya. 2001. Experiencing derivations. A paper presented at SALT 11.New York.

Rizzi, Luigi. 1990. On the anaphor-agreement effect. *Rivista di Linguistica* 2: 27-42.

Witkoś, Jacek. 2007. Polish and A-type scrambling. In *Linguistic investigations into formal description of Slavic languages*, edited by Peter Kosta and Lilia Schürcks, 458-470, Frankfurt am Main: Peter Lang.

Witkoś, Jacek. 2008. On the correlation between A-type scrambling and lack of Weak Crossover effects. *Studia Anglica Posnaniensia* 44: 297-327.

Acquisition of (ir)regularity and subcategorization of verbs in a cross-system comparison between L1 and L2 German

Denisa Bordag, Amit Kirschenbaum, Andreas Opitz, Maria Rogahn, & Erwin Tschirner
(Leipzig University)

In a series of experiments, we explored how two grammatical categories with different properties are acquired incidentally by German natives and advanced learners.

In the first study, participants read short texts, each with three occurrences of a pseudoverb in the preterite tense ('*belfen - balf*') replacing a low frequency verb. Half of the novel verbs (NVs) were conjugated regularly, the other half irregularly. The syntactic complexity of the texts was manipulated yielding syntactically simple and complex (containing more subordinate clauses, passive voice, participle constructions etc.) versions of otherwise identical texts. After each text, several additional sentences were read in a self-paced manner (SPR). One of them contained the NV in the perfect tense conjugated either consistently with the forms in the text (plausible condition, e.g. irregular-'*hat gebolfen*'), or differently (e.g. regular-'*hat gebelft*').

L1-participants showed no (im)plausibility effect with respect to the consistency of the NV-conjugation in the text vs. in the SPR-sentences. However, longer RTs on NVs and spillover regions were observed in the SPR-sentences for all irregular NV-forms irrespective of whether the NVs appeared as regular or as irregular in the texts. In contrast, the L2-learners were slower in the spillover regions following the NV if the verb's conjugation was inconsistent with its conjugation in the text, but only in the syntactically complex contexts. No difference between regular and irregular verbs was observed.

Analogously, we explored the acquisition of subcategorization in the second study. In the target texts, NVs were presented as intransitive. In the implausible SPR-sentences they were presented as monotransitive. L1-participants showed longer RTs in the implausible condition indicating that they inferred/acquired the subcategorization frame of the NVs. The L2-learners showed the same effect, but only on the n+2 spillover region in the complex condition.

The results of the (ir)regularity experiment demonstrate a "learning by unlearning" effect by the L1-speakers: After a default (regular) route for processing verbs has been firmly established, any deviations from it are perceived as implausible, irrespective of the actual evidence in the input. L2-learners seem to rely more on the idiosyncratic features of the NVs rather than on abstractions. The results on subcategorization, a category in which no robust generalizations about a predominate pattern can be made, indicate that L1-speakers are actually more successful in acquiring NV-properties from input than L2-learners if they are not mislead by previously established generalisations about the grammatical category. The results of both L2-experiments suggest that syntactically challenging contexts may trigger a shift of learners' attention from the text level to the individual words and their properties, thus supporting the inferencing and acquisition process.

Discourse markers in reported speech

Margarita Borreguero Zuloaga & Ilaria Fiorentini
(Universidad Complutense de Madrid & University of Insubria)

The present contribution investigates the use of Italian and Spanish discourse markers (henceforth DMs) in reported speech from a functional perspective. One distinctive feature of DMs is that they can be omitted in indirect speech without affecting the propositional content of the utterance (cf. Bazzanella 1995, Martín Zorraquino/Portolés 1999, Molinelli 2014). By indirect speech we mean the reproduction of utterances belonging to another locutionary act (Coulmas 1986, Maldonado 1991, Reyes 2002, Güldeman/von Roncador 2002, Mandelli 2010a), without quoting them directly. In the following example, the DM *guarda* 'look' in (1a) can be omitted in (1b):

(1) a. Guarda, ti sbagli
       'Look, you are wrong'
   b. *Ha detto che* mi stavo sbagliando
       'He told me I was wrong'

However, interactional and intersubjective DMs are accepted in direct (reported) speech (Mandelli 2010b): in this case, they can be employed as quotation markers (metatextual function, Macaulay 1987, Cuenca 1991), as in (3-4):

(2) infatti me l'ha presentato *dice* **guarda** quando tu hai bisogno visto visto che c'hai il deposito qui (…) ti rivolgi qui a al dottor Bruschi (Ghezzi/Molinelli 2015)
(3) llega un momento que vas aguantando y que las cosas se juntan y que *dices*/ **PUES** NO / TENGO QUE PARARME / Y – Y DECIDIR (Briz/Val.Es.Co. 2002)

We carry out a corpus-based research collecting our data from different spoken corpora (LIP, C-Oral-Rom and CLIPS for Italian, Val.Es.Co and C-Oral-Rom for Spanish). In our analysis, we will adopt a contrastive perspective, comparing interactional and metatextual DMs which appear more frequently in direct reported speech, such as It. *guarda*, Sp. *mira* 'look', It. *beh*, Sp. *bueno* 'well', It. *ma*, Sp. *pues* 'but', It. *per così dire*, Sp. *o sea* 'that is to say, so to say'.

Our claim is that these DMs assume a quotative function in oral narratives (Svartvik 1980, Macaulay 1987, Müller 2006), reinforcing other quotative markers such as the saying verb (cf. *dice* (he) says', *dices* '(you) say' in examples 3 and 4), pronouns and intonation cues.

References
Bazzanella, C. (1995): I segnali discorsivi. In Renzi, L., Salvi, G., Cardinaletti, A. (eds.), Grande grammatica italiana di consultazione, vol. III. Bologna, Il Mulino, 225-257.
Bazzanella, C. (2006): Discourse Markers in Italian: towards a 'compositional' meaning. In Fischer, K. (ed.), Approaches to discourse particles. Amsterdam, Elsevier, 449-464.
Coulmas, F. (ed.) (1986) *Direct and Indirect Speech*. Berlin: Mouton de Gruyter.
Cuenca, Mª Josep et al. (2011): Emotividad y marcadores del discurso en narraciones orales. Oralia 14, 315-344.
Ghezzi, C., Molinelli, P. (2015): Segnali allocutivi di richiamo: percorsi pragmatici e sviluppi diacronici tra latino e italiano. Cuadernos de Filología italiana 22, 21-47.
Güldemann, T., von Roncador, M. (eds.) (2002): Reported discourse: a meeting ground for different linguistic domains. Amsterdam, John Benjamins
Macaulay, R. (1987) Polyphonic monologues: quoted direct speech in oral narratives. *IPrA Papers in Pragmatics* 1.2, 1-34.
Maldonado, C. (1991): Discurso directo y discurso indirecto. Madrid, Taurus.
Mandelli, M. (2010a): Discorso indiretto. In Enciclopedia dell'italiano. Roma, Istituto della Enciclopedia italiana Giovanni Treccani

Mandelli, M. (2010b): Discorso diretto. In Enciclopedia dell'italiano. Roma, Istituto della Enciclopedia italiana Giovanni Treccani

Martín Zorraquino, Mª A. and J. Portolés (1999), Los marcadores del discurso, in Ignacio Bosque y Violeta Demonte (dirs.), *Gramática descriptiva de la lengua española*. Madrid: Espasa Calpe, vol. 3, 4051-4213.

Molinelli, P. (2014): Orientarsi nel discorso. Segnali discorsivi e segnali pragmatici in italiano. In Pirvu, E. (ed.), Discorso e cultura nella lingua e nella letteratura italiana. Firenze, Franco Cesati, 195-208.

Müller, S. (2005): Discourse Markes in Native and Non-native English Discourse. Amsterdam, John-Benjamins.

Quirk, R., S. Greenbaum, G. Leech and J. Svartvik (1985) *A Comprehensive Grammar of the English Language.* London: Longman.

Reyes, G. (2002): Los procedimientos de cita: estilo directo y estilo indirecto. Madrid, Arco Libros.

Svartvik, J. (1980) *Well* in conversation. In S. Greenbaum, G. Leech & J. Svartvik (eds.) *Studies in English Linguistics for Randolph Quirk*. London: Longman, 167-177.

Grammatical words – words you don't see

Nicolai Boston Simonsen, Line Burholt Kristensen, & Kasper Boye

(ProGram, Department of Nordic Studies and Linguistics, University of Copenhagen, Denmark)

A recent theory by Boye & Harder (2012) suggests that grammatical words can be defined as words that are by convention discursively backgrounded. We present a letter detection study designed to figure out whether grammatical words are also treated as visual background, i.e. whether the grammar-lexicon contrast draws on more general attention capacities.

Letter detection is a psycholinguistic paradigm where participants read a text while striking out all instances of a specific letter. Results from previous letter detection studies suggest that some word categories are more attended to than others. Rosenberg et al. (1985) found that readers detected more letters in open class words (nouns, verbs, adjectives) than in closed class elements (e.g. determiners and auxiliaries), and Vinther et al. (2014) found better detection of letters in lexical words than in grammatical words.

In the present study, we employ letter detection to compare how readers attend to grammatical and lexical words when they are visually focused (marked with red font) and when they are nonfocused (unformatted black font).

In order to ensure as minimal a contrast between grammar and lexicon as possible, we compared homonymous pairs of grammatical verbs (auxiliaries) and lexical ones (full verbs) found in Danish. Two such pairs were compared: one consisting of grammatical and lexical *have* ('have') and one consisting of grammatical and lexical *få* ('get'). We presented these words in four conditions, as shown below with *have* as the target:

	Lexical	Grammatical
Target visually focused	*[…] om den gamle klan virkelig har en etableret base i København*	*[…] om den gamle klan virkelig har etableret en base i København*
with red	'[…] whether the old clan really has an	'[…] whether the old clan really has

font	established base in Copenhagen'.	established a base in Copenhagen'.
Target visually non-focused	*[...] om den gamle klan virkelig har en etableret base i København* '[…] whether the old clan really has an established base in Copenhagen'.	*[...] om den gamle klan virkelig har etableret en base i København* '[…] whether the old clan really has established a base in Copenhagen'.

These four versions were distributed over four texts. Each of the 129 study participants (Danish non-colourblind high school students) read one of the four texts while simultaneously striking out all instances of the letter *r*. After completion the participants answered six comprehension questions.

The results show a statistically significant interaction between visual focus and grammatical status, suggesting a link between grammatical status and visual attention. Visual focus (red font) facilitates letter detection more for the grammatical words than for the lexical words: grammatical verbs showed a 16 percentage points increase (from detecting 77 % of target letters in the non-focused condition to detecting 83% in the focused condition), whereas lexical verbs showed only a 7 percentage point increase (from detecting 77% to detecting 84%). These results support the idea that grammatical words are conventionalized and hence entrenched as background information, and more generally, the idea that grammar draws on cognitive capacities that are not strictly linguistic.

References

Boye, Kasper & Peter Harder (2012) A usage-based theory of grammatical status and grammaticalization. *Language 88*:1-54.

Rosenberg, Beth, Edgar Zurif, Hiram Brownell, Merrill Garrett & Dianne Bradley (1985) Grammatical class effects in relation to normal and aphasic sentence processing. *Brain & Language 26*:287-303.

Vinther, Nicoline Munck, Kasper Boye & Line Burholt Kristensen (2014) Grammatikken i baggrunden: Opmærksomhed under læsning. *NyS 47*:99-139.

How discourse markers cross into writing: Colloquialization and the development of *actually*

Samuel Bourgeois

(University of Neuchâtel)

This study investigates how the discourse marker (DM) *actually* is increasingly adopted into written genres and what functional changes go along with this development. Previous work on the multifunctionality of *actually* has discussed how it diachronically develops from adverbial senses to "epistemic adversative" senses and further to DM "additive" senses (Traugott and Dasher 2002: 169-170). In synchrony, DM *actually* has been analyzed primarily in studies focusing on conversational data (Tognini-Bonelli 1993, Smith & Jucker 2000, Clift 2001, Aijmer 2015) which is motivated by the close association that DMs have with oral genres (Schourup 1999: 234). Despite the obvious association of DMs with orality, however, Aijmer (2013, 2015) argue that DMs have a meaning potential that allows their adoption into new genres and new functions. This paper will expand on this idea and it will argue on the basis of corpus data that the use of DMs in writing is an example of colloquialization (Mair 2006: 186).

Methodologically, this study adopts the outlook of corpus pragmatics (Rühlemann & Aijmer 2015), but confines this approach to the less visited arena of written texts. In particular, it will concentrate on the uses of *actually* in the written sections of the COHA (Davies 2010). The first part will compare the data from the COHA and the Hansard Corpus (Alexander & Davies 2015) which allows one to observe *acutally*'s behavior diachronically from the 19th century to the first decade of the 21st century in both written and oral forms. Through this comparison, it will also highlight the particularities of *actually* as used in writing. Furthermore, it is here that it will be demonstrated that, in writing particularly, there is a general increase in the frequency of use of *actually* since the second half of the 20th century. The second part of this study will take a qualitative approach and will present an in-depth look into how *actually* functions in writing in the sentence initial, medial, and final positions. Special attention will be given to *actually* in the medial and ending positions because previous studies of *actually* have demonstrated that its use in these positions in writing differs from its use in conversation (Oh 2000, Kallen 2015).

Ultimately the finding that emerges from this analysis is that colloquialization is more than the inclusion of oral elements into writing. As DMs like *actually* make their way into written genres, their functions adapt to the specific communicative needs of writers. Particularly this work will highlight the marked rise of importance of *actually* being used to mark clause boundaries and word selection, a practice also demonstrated to be increasingly frequent with the DM *well* since the later 20th century (Rühlemann & Hilpert 2017). Furthermore, the data demonstrates that when used in writing, *actually* can serve the double function of mimicking the conversational-specific functions that have to do with upgrading or correcting terminology used by speakers, while also serving the uniquely written function of signaling a salient syntactical boundary or intentional lexical selection.

References

Aijmer, K. (2013). *Understanding pragmatic markers. A Variational Pragmatic Approach*. Edinburgh: Edinburgh University Press.

Aijmer, K. (2015). Analysing Discourse Markers in Spoken Corpora: Actually as a case study. In P. Baker, and T. McEnery (Eds.), *Corpora and Discourse Studies: Integrating Discourse and Corpora*. Basingstoke: Palgrave MacMillan, 88-109.

Alexander, M. and Davies, M. (2015). Hansard Corpus 1803-2005. Available online at http://www.hansard-corpus.org.

Clift, R. (2001). Meaning in Interaction: The case of *actually*. *Language*, 77(2), 245-91.

Davies, M. (2010). The Corpus of Historical American English (COHA) 1810-2009. Available online at
http://corpus.byu.edu/coha.

Kallen, J. (2015). 'Actually, it's unfair to say that I was throwing stones': Comparing Perspectives on the uses of *actually* in ICE-Ireland. In C. Amador-Moreno, K. McCafferty, and E. Vaughan (Eds.), *Pragmatic Markers in Irish English*. Amsterdam and Philadelphia: John Benjamins Publishing Company, 135-55.

Mair, C. (2006). *Twentieth-Century English: History, Variation, and Standardization*. Cambridge: Cambridge University Press.

Oh, S. (2000). *Actually* and *in fact* in American English: A data-based analysis. *English Language and Linguistics*, 4(2), 848-78.

Rühlemann, C. and Aijmer K. (2015). Corpus pragmatics: laying the foundations. In K. Aijmer and C. Rühlemann (Eds.), *Corpus Pragmatics: A Handbook*. Cambridge: Cambridge University Press, 1-26.

Rühlemann, C. and Hilpert, M. (2017). Colloquialization in Journalistic Writing: The Case of Inserts with a focus on *well*. *Journal of Historical Pragmatics*.

Schourup, L. (1999). Tutorial Overview: Discourse Markers. *Lingua*, 107, 227-265.

Smith, S. and Jucker, A. (2000). *Actually* and other markers of an apparent discrepancy between propositional attitudes of conversational partners. In G. Anderson, and T. Fretheim (Eds.), *Pragmatic Markers and Propositional Attitude*. Amsterdam and Philadelphia: John Benjamins Publishing Company, 207-37.

Tognini-Bonelli, E. (1993). Interpretative nodes in discourse: *Actual* and *actually*. In M. Baker, G. Francis and E. Tognini-Bonelli (Eds.), *Text and Technology: In Honour of John Sinclair*. Amsterdam and Philadelphia: John Benjamins Publishing Company, 193-211.

Traugott, E. and Dasher, R. (2001). *Regularity in Semantic Change*. Cambridge: Cambridge University Press.

It's connections all the way down. Artificial Neural Networks for diachronic construction grammar

Sara Budts & Peter Petré
(University of Antwerp)

Construction Grammar conceptualizes constructions as nodes in an interconnected network, with the nodes themselves represented as schematic structures with open slots. Schematic representations are widely used in diachronic linguistics because they find a close ally in classic corpuslinguistic methodology, where attestations of a few constructions are analysed and compared. As traditional methodology emphasises change in the main construction, it tends to treat the collocations as a static background against which the dynamic collocational preferences of the construction are traced (notable exceptions include Hilpert 2016). For practical reasons, it is rarely accounted for that those collocates are themselves nodes in the same constructional network, and that they might be subject to change too. A construction may occur with a new complement due to change in the complement as well as change in the construction itself. As standard corpuslinguistic practices do not allow for the exploration of constructional interactions in the constructicon as a whole, methodological issues seem to deprive constructional interactions of the attention they deserve. By putting the connections between constructions centre stage, it becomes possible to model language change in a truly dynamic way, shaped by the constant weakening and strengthening of interconstructional ties.

We complement traditional corpus methods with methods based on Artificial Neural Networks (ANNs), a family of learning algorithms inspired by the wiring of the human brain. ANNs are rapidly gaining momentum in a variety of scientific disciplines that involve data analysis, including Natural Language Processing (e.g. De Mulder & al. 2015). Their benefits for theoretical linguistics, however, have not yet been explored. The advantages of ANNs for Diachronic Construction Grammar will be illustrated by an analysis of the development of periphrastic *do* in Early Modern English. *Do*-support spread to different syntactic environments at different times (cf. Ellegård 1953, Kroch 1989). While it has been recognized that the consolidation of periphrastic *do* was influenced by similarities with modal auxiliaries, 'the nature of the connection is less clear' (Warner 1993: 198). We model the various changes as an interconnected accumulation of associations between *do*-support and modal auxiliaries in similar contexts. The underlying assumption is that *do*-support in questions is associated with different (uses of) modals than *do*-support in negative statements, *etc*. On this account, different timings depend on different initial association strengths predating periphrastic *do*. For instance, *do* used to be quite common in affirmative sentences early on, as in *His sclauyn he dude dun legge ('his*

cloak he did lay down' [c.1300]). This emphatic use was still related to the original meaning of 'actually doing something'. Arguably, when spreading to 'purely' syntactic contexts, its use was still supported by similarity to existing patterns elsewhere in the grammar. Traditional collocational analysis will miss out on these, because it does not chart connections (for instance, with modals) beyond the collocated item at stake. ANNs *do*, which makes it possible to examine what role multiple connections between nodes can play in language change.

References

De Mulder, Wim, Steven Bethard & Marie-Francine Moens. 2015. "A survey on the application of recurrent neural networks in statistical language modeling." *Computer Speech & Language* 30(1). 61-98.

Ellegård, Alvar. 1953. The auxiliary do: The establishment and regulation of its use in English. PhD thesis: University of Gothenburg.

Hilpert, Martin. 2016. Change in modal meanings: Another look at the shifting collocates of *may*. *Constructions and Frames 8(1)*: 66-85.

Kroch, Anthony. 1989. Reflexes of Grammar in Patterns of Language Change. *Language Variation and Change* (1): 199-244.

Warner, Anthony R. 1993. *English Auxiliaries. Structure and history*. Cambridge: Cambridge University Press.

Dative object verbs with embedded infinitives in Russian

Irina Burukina

(Eötvös Loránd University)

This paper focuses on the dative indirect object (IO) verbs in Russian that allow embedded infinitival clauses with object control (1). The main goal of this research is to provide a syntactic structure for these verbs that could describe and predict their properties. I believe that the Small Clause approach (Hoekstra 2004, Den Dikken 2006) is the most promising for this task.

(1)   Petja   razrešil   Maše$_i$ PRO$_i$ vzjat'   kuklu.
       Peter.NOM   allow.3SG.PST Mary.DAT   take.INF   doll
       'Peter allowed Mary to take a doll.'

First, I analyze ordinary object control verbs. I argue that they take a small clause complement that consists of a dative subject and a complex predicate that includes a clausal proposition (a non-finite or a finite subjunctive clause) and a silent modal head.

(2)   [$_{vP}$ Subject [$_{v'}$ [$_v$ main verb] [$_{SC}$ [Dative NP$_i$] R^0 [$_{XP}$ [$_{X'}$ [$_X$ modal][$_{CP}$ PRO$_i$ Infinitive]]]]]]

I provide the data to show that in case of the object control predicates the dative argument and the embedded clause form an immediate phasal constituent that excludes the main verb. The raising analysis is not supported by the standard diagnostics. Furthermore, since the embedded clause itself is a fully saturated proposition it cannot function as a predicate and an intermediate head is necessary. I

further suggest that this head is a modal-like element, drawing a parallel between object control constructions and modal predicatives common in Russian.

Modal predicatives (*mozhno* 'possible*',* etc.) prohibit a nominative subject, assigning dative case to an NP argument, and allow for non-finite or subjunctive embedded clauses.

(3)   *Pete   možno ne   rabotat'segodnja.*
Peter.DAT   possible.NEUT.SG   not   work.INF   today
'For Peter it is possible not to work today.'

Following the control analysis suggested in (Zimmerling 2008), I investigate the distributional properties of modal predicatives and propose for them the following structure (4), which is further developed into the structure for object control verbs (2).

(4) $[_{SC}$ [Dative NP] R^0 $[_{CP}$ PRO$_i$ Infinitive]]

The proposed structures correspond to several important properties, for example, prohibition of partial control and ambiguity of scopal interpretation of negation (5).

(5)   Petja   ne   razrešal   Maše$_i$ PRO$_i$ ostat'sja.
Peter.NOM   not   allow.PST   Mary.DAT   stay.INF
'Peter didn't say that for Mary it is possible to stay.'
'Peter said that for Mary it is not possible to stay.'

Second, I consider verbs *pomoč'* 'help' and *pomešat'* 'prevent', which seemingly take a dative and an infinitival arguments similarly to the ordinary object control verbs. Surprisingly, *pomoč'* and *pomešat'* do not allow an IO together with an embedded finite subjunctive clause. Applying the set of standard diagnostics, I claim that these two verbs should be analyzed as raising predicates.

(6) $[_{vP}$ [*Petja*] $[_{v'}$ v $[_{XP}$ *Maše$_i$* $[_{VP}$ *pomog* [t$_i$ *dostat' kuklu s polki*]]]]]
Peter.NOM   help.3SG.PST Mary.DAT   take.INF   doll   from   shelf
'Peter helped Mary to take a doll from the shelf.'

To summarize, I propose a novel analysis for the object control verbs with a dative IO in Russian, which includes a small clause complement with an embedded silent modal element. I also investigate the two seemingly exceptional verbs (*pomoč'* and *pomešat'*) and argue that they should be reanalyzed as raising predicates. The full version of this paper presents the whole range of arguments and diagnostics to support the discussed analysis.

References
Dikken, M. den. 2006. Relators and Linkers: The Syntax of Predication, Predicate Inversion, and Copulas. MIT Press.
Hoekstra, T. 2004. Arguments and Structure: Studies on the Architecture of the Sentence. Mouton de Gruyter.
Zimmerling, A. 2008. Dative Subjects and Semi-Expletive Pronouns in Russian.

Finding passives in Ye'kwana (Cariban): Too many might still not be enough

Natalia Cáceres Arandia

(University of Oregon)

This paper illustrates the case of Ye'kwana, a language spoken in Venezuela and Brazil by about 9,000 speakers, that could be claimed to have at least six different passive constructions. Various formal and functional definitions of passives (Keenan & Dryer 2007, Siewierska 2013, Dixon 2010 and Givón 1994, 2001) allow us to identify four different passive constructions in Cariban languages. All can be claimed to convey a transitive event with the agent either not mentioned or expressed as an oblique (Gildea et al, In preparation).

Each construction has been reconstructed to different sources, through typologically well-known pathways:

- one uses a detransitivizing prefix (1) which is claimed to originally have been a reflexive, then evolved into a middle before functioning as passive with no possibility of an agent phrase
- another one adds the detransitivizing prefix onto a causativized verb (2) with an optional postpositional phrase for the agent
- the last two are based on two originally resultative deverbal forms, one adverbial (3), the other nominal (4), both also presenting the option of an agent phrase

Synchronically, Ye'kwana is the only language in the family that presents this whole set of passive constructions, yet none is dedicated to passive but each of the constructions is also found in other functions (including the source functions).

Spontaneous textual data from documentation in Ye'kwana (Cáceres 2011) show that, in addition to the constructions above, certain definitions (e.g. Siewierska 2013, Givón 2001) allow two other constructions to be added to the list (5-6). Unsurprisingly, these have other functions too: one is also found as an ergative imperfective with which the A argument is rarely expressed having its source in an action nominalization with an optional agent by-phrase (Cáceres & Gildea 2013); the other as a nominative imperfective for which the source is an object nominalization possessed by the A (Gildea 1998).

Thus, the set of typological definitions of passive makes it possible to find, within a single language, an array of constructions that compete for the same function.

I argue that the case presented in this paper questions the validity of a separate formal or functional category of passive voice: there are many formal candidates for the purported function but none dedicated to it.

By looking at all functions and the respective internal cognate constructions for each of the different "passives", functional coherence can be extracted –even within the two cases of innovation from resultative to eventive. The results from this analysis suggests that the motivation for such a diversity of constructions apparently accomplishing the same thing is not to be sought in argument structure changes but in the communicative function of what speakers intend to focus on.

Ye'kwana examples

(1) *¿önökü n-**öt**-önö-a-nö*?
     who   3-dtr-eat_meat-npst-inter
     'What are we going to eat (Lit. who[se animal] meat is to be eaten)?'   {IvwCti.312}

(2) *tü-tamu-Ø-ton=komo*   *uwö*   *kün-**öt**-o'to-**jo**-i*   *yaawö*

	3.refl-granpa-pos-pl.anim=pl	agt		3.dis-dtr-fish-caus-prp	then	

'He got fished by their own grand-father.'   {CtoYude.021}

(3)   *towanojon-ato*   *tu-jumma-e*   *na*   *eetö*   *mödö*   *t-üdü-nei*

intelligent-nzr   adv-need-ptcp   3.cop   here   dem2in 3o-make-nzr

'An intelligent [person] is needed here, [to] do that.'   {ConvChur.211}

(4)   *y-ajö-dü=komo adö-jö'-**ajö***   *tü-naatü'tö-:-mü=je*

3-branch-pos=pl   3o.take-plac-ptcp   azr-plant-ptcp-nzr=atrb

'The branches had been taken to be planted'   {CtoMdwk.175}

(5)   *Kajichaana*   *ajöi-**chü***.

chief   3o.grab-ipfv

'The chief was grabbed' (Spa. 'agarraban al cacique')   {HistAna.113}

(6)   *Manadiya*   *kün-a'ja-akö*   *Wanadi*   ***n**-üdü-**dü***

proper.noun   3:dis-cop-dpi   proper.noun   shifter-make-ipfv

'Manadiya was created by Wanadi'   {IvwCti.092}

References

Cáceres, Natalia. 2011. Documentation of Ye'kwana in the Erebato river in Venezuela. Deposited at SOAS, London: Endagered Languages Archive. Web. January 18, 2013. https://elar.soas.ac.uk/Collection/MPI154072

Cáceres, Natalia, and Spike Gildea. 2013. "La Construcción Imperfectiva Del Ye'kwana (Caribe)." presented at the Sixth Conference on Indigenous Languages of Latin America (CILLA VI), University of Texas, Austin, October 26.

Dixon, R. M. W. 2010. Basic Linguistic Theory Volume 1: Methodology. OUP Oxford.

Gildea, Spike. 1998. On Reconstructing Grammar: Comparative Cariban Morphosyntax. New York: Oxford University Press.

Gildea, Spike, Racquel-Maria Sapién, Natalia Cáceres, and Sérgio Meira. In preparation. "Diachronic Typology of Passive in the Cariban Family."

Givón, Talmy. 1994. "The Pragmatics of de-Transitive Voice: Functional and Typological Aspects of Inversion." In Voice and Inversion, edited by Talmy Givón, 28:3–46. TSL. Amsterdam: John Benjamins.

Givón, Talmy. 2001. Syntax: A Functional-Typological Introduction: Vol II. Amsterdam: John Benjamins.

Keenan, Edward L. and Matthew S. Dryer. 2007. "Passive in the World's Languages". In Clause Structure, Language Typology and Syntactic Description, Vol. 1, edited by Timothy Shopen, pp. 325-361. Second Edition. Cambridge University Press

Siewierska, Anna. 2013. "Passive Constructions". In The World Atlas of Language Structures Online, edited by Dryer, Matthew S. & Haspelmath, Martin. Leipzig: Max Planck Institute for Evolutionary Anthropology. (Available online at http://wals.info/chapter/107, Accessed on 2016-12-16.)

Gerd Carling & Chundra Cathcart

The relevance of vowel reduction and loss for the prosodic hierarchy

Javier Caro Reina & Renata Szczepaniak

(University of Cologne & University of Hamburg)

The distribution of vowels may be associated with specific prosodic domains. For example, in Spanish the set of vowels [i e a o u] may occur both in stressed and unstressed syllables (Quilis 1999:144). That is, their distribution is symmetrical regardless of stress. By contrast, in Central Catalan we find an asymmetrical system. Specifically, [i e ɛ a ɔ o u] occur in stressed syllables while [i ə u] occur in unstressed syllables. This seven-to-three inventory reduction results from centralization and merger of back vowels (Mascaró 2002, Barnes 2006:20-22). That is, these vowel reduction processes are word-related. Additionally, they are word-optimizing since they contribute to creating an asymmetry between stressed and unstressed syllables within the phonological word. As a consequence, stressed syllables are more prominent than unstressed ones.

Although vowel reduction and loss have been reported in standard and non-standard varieties, these processes have not been properly explained in terms of the relevance of prosodic categories higher than the syllable. These include the phonological foot, the phonological word, and the phonological phrase (Nespor/Vogel 2007:4). For example, in Late Old High German vowel reduction and loss are foot-related while in Middle High German they are word-related (Szczepaniak 2007:150-154). However, these processes are absent from languages where the syllable is the central prosodic category. This is the case in Spanish.

Drawing on historical and dialect data from the Alemannic dialect group, it will be shown that vowel reduction and loss are diagnostic tools for determining the relevance of the prosodic category of the phonological word. First, in Old Alemannic and Swabian vowel reduction brings about an asymmetry between stressed and unstressed syllables (see Table 1). Altogether, the processes comprise centralization, unrounding, shortening, rising, monophthongization, and denasalization. The patterns of vowel reduction reveal that the process is sensitive to within-word position (pretonic vs. posttonic syllables) and syllable type (open vs. closed syllables).

Table 1: Set of vowels in Old Alemannic and Swabian

	Stressed syllables	Unstressed syllables
Old Alemannic		
Short vowel	i y e ø ɛ a o u	i e a o u
Long vowel	iː yː eː øː ɛː aː oː uː	iː yː eː aː oː uː
Diphthong	ei ou øy iːe iːo uːo yːø	
Swabian		
Short vowel	i e ɛ a o u	i e ə
Long vowel	iː eː ɛː aː oː ɔː uː	
Diphthong	ao ae ɛə ɛːə iə ɔə uə ui əu əi	

And second, unstressed vowel deletion led to the deterioration of the syllable structure, thereby violating the Head Law, Coda Law, and Contact Law (Vennemann 1988). Additionally, word-final vowel deletion helped to highlight the right margin of the phonological word by increasing syllable complexity as in OAlem. *stúnda* [ˈʃtunda] > Swab. *Stunde* [ʒ̊d̥õn̥d̥] 'hour'.

The results gained from the diachronic and synchronic analysis of the Alemannic dialect group contribute to a better understanding of the patterns of vowel reduction and loss. Additionally, they

show how they interact with the relevance of prosodic categories such as the phonological foot and the phonological word.

References

Barnes, Jonathan. 2006. *Strength and weakness at the interface* (Phonology and Phonetics 10). Berlin: Mouton de Gruyter.

Mascaró, Joan. 2002. El sistèma vocàlic. Reducció vocàlica. In Joan Solà, Maria-Rosa Lloret, Joan Mascaró & Manuel Pérez Saldanya (eds.), *Gramàtica del català contemporani*, vol. 1, 89-123. Barcelona: Empúries.

Nespor, Marina & Irene Vogel. 2007. *Prosodic phonology. With a new foreword* (Studies in Generative Grammar 28). 2nd edn. Dordrecht: Foris.

Quilis, Antonio. 1999. *Tratado de fonología y fonética españolas*. 2nd edn. Madrid: Gredos.

Szczepaniak, Renata. 2007. *Der phonologisch-typologische Wandel des Deutschen von einer Silben- zu einer Wortsprache* (Studia Linguistica Germanica 85). Berlin & New York: de Gruyter.

Vennemann, Theo. 1988. *Preference laws for syllable structure and the explanation of sound change. With special reference to German, Germanic, Italian, and Latin*. Berlin: Mouton de Gruyter.

The reanalysis of reflexives as transitivity modulators in Romance

Michela Cennamo

(University of Naples Federico II)

In this paper I will discuss some aspects of the reanalysis of reflexives as transitivity modulators in Romance, focusing on the actualization of a number of 'new' structures which became available for the encoding of voice in the transition from Latin to Romance, their various stages and the parameters determining their implementation in some Romance languages and varieties.

More specifically, I will investigate the role played by aspectual notions such as telicity and the continuum of control (Lehmann 1988) in the synchrony and diachrony of the reflexive morpheme in anticausative and pleonastic function.

The ultimate goal is to detect patterns of invariance (i.e., persistence), of Latin inheritance, and principled differences (i.e., divergence) in the type and extent of variation and further developments in this area of Romance morphosyntax.

I will show how a Late Latin distinction — whereby the accusative (*se*) and dative (*sibi*) forms of the reflexive morpheme come to differentiate two subclasses of intransitives (unergatives and unaccusatives, respectively) (Dahlén 1964, Cennamo 1999) —, subsequently neutralized, and then lost, resurfaces in the various Romance languages, although in different ways and to a different extent, but still reflecting the core syntax and function(s) of the original Latin pattern, molded by the interplay of the continuum of control and the verb's aspectual properties, leading to so-called 'pleonastic reflexives' (Reichenkron 1933, Hatcher 1942, among others), with both transitive and intransitive verbs (cf. Romanian *I se face de plimbare* 'He feels like walking', European Portuguese *já se aconteceu* 'It has already happened', Spanish *se me ha olvidado la cartera* 'I forgot my bag', *se murió* 'He died') (Cennamo 2016: 971 and references therein). I will also explore the persistence of telicity (and, to a lesser extent, control) in shaping the alternations between the reflexive and labile strategies in the marking of anticausatives in Romance (cf. Heidinger 2010 for French, Cyrino 2013 for Brazilian Portuguese; Cennamo 2012 for some early Italian vernaculars and contemporary Italian;

Schäfer 2008, Keiluweit 2010 for a synchronic overview), continuing but at the same time diverging from the Latin distribution (e.g., *scindere se* 'break' vs *minuere* 'decrease', *quassare* 'shake violently' (Cennamo et al. 2015).

The data investigated, therefore, appear to offer an interesting contribution to the current debate on the status and function of se in these patterns and on the role played by the verb's inherent meaning and its interaction and integration with the event structure template of predicates in determining argument realization in the voice domain.

References

Bentley, D. 2006. *Split Intransitivity in Italian*. Berlin: Mouton de Gruyter.

Cennamo, M. 1999. Late Latin pleonastic reflexives and the Unaccusative hypothesis. *Transaction of the Philological Society* 97.1: 103–50.

___ 2012. Aspectual constraints on the (anti)causative alternation in Old Italian', in J. Barðdal, M. Cennamo & E. van Gelderen (eds), *Argument Realization and Change. Transactions of the Philological Society* 110.3: 394–421 (Thematic issue).

___ 2016. Voice. In M. Maiden & A. Ledgeway (eds), *The Oxford Handbook of the Syntax of the Romance Languages*. Oxford: Oxford University Press, 967-980.

Cennamo, M., Eythórsson, T. & Barðdal, J. 2015. Anticausatives in Latin and Old-Norse Icelandic: (morpho)syntactic aspects and semantic constraints. *Linguistics* 53.4: 1-53.

Cyrino, S. 2013. Argument promotion and se-constructions in Brazilian Portuguese. In E. van Gelderen, M. Cennamo & J. Barðdal (eds), *Argument Structure in Flux*. The Naples-Capri papers. Amsterdam/Philadelphia: Benjamins, 284–306.

Dahlén, E. 1964. *Etudes Syntaxiques sur les Pronoms Reflechis Pleonastiques en Latin.* Uppsala: Almqvist & Wiksell.

Dragomirescu, A. & Nicolae, A. 2017. Semantic constraints on the reflexive/non-reflexive alternation of Romanian unaccusative. In L. Hellan, A. Malchukov, & M. Cennamo (eds) *Contrastive Studies in Verbal Valency*. Amsterdam/Philadelphia: John Benjamins, 407-430.

Hatcher, A.G. 1942. *Reflexive Verbs in Latin, Old French, Modern French*. Baltimore: The John Hopkins Press.

Heidinger, S. (2010). *French Anticausatives. A Diachronic Perspective*. Berlin: Mouton de Gruyter.

Keiluweit, R. (2011). Romance anticausatives: a constructionist RRG approach. In W. Nakamura (ed), *New Perspectives in Role and Reference Grammar*. Cambridge: Cambridge Scholars Publishing, 104–33.

Lehmann, Ch. 1988. Predicate classes and participation. In *Studies in General Comparative Linguistics*. Köln: Institut für Sprachwissenschaft Universität zu Köln, 33–77. (Arbeiten des Kölner Universalien-Projekts 71).

Reichenkron, G. 1933. *Passivum, Medium und Reflexivum in den romanischen Sprachen*, Jena/Leipzig: Gronau (Berliner Beiträge zur romanischen Philologie III.1).

Schäfer, F. (2008). *The Syntax of (Anti-)Causatives. External Arguments in Change-of-State Contexts.* Amsterdam/Philadelphia: Benjamins.

Discourse/pragmatic markers in spoken and written Czech

Anna Čermáková, Zuzana Komrsková, Marie Kopřivová, & Petra Poukarová
(Faculty of Arts, Charles University/Institute of the Czech language, Academy of Sciences of the Czech Republic)

Study of discourse (pragmatic) markers (for terminology cf. e.g. Fischer 2005) "has avalanched in recent years" (Aijmer 2013: 1), however, as the research shows there are still many open questions – terminological and theoretical. A substantial amount of the research has been carried out on English and limited data sets. Cross-linguistic research still needs to incorporate more languages to allow typological comparisons and as has been acknowledged more contextual variables and study of pragmatic markers in different contexts should be included (Aijmer 2013: 2). This study aims to contribute both to the cross-linguistic research of pragmatic markers and their variation within one language. Following a study on the causal connective *protože* ('because') in spoken and written Czech (Čermáková et al. forthcoming), which showed that *protože* (and all its reduced variants in speech) has pragmatic meaning and functions as a discourse/pragmatic marker only in spoken language where its core causative meaning disappears or is very weak (cf. Stenström 1998, Burridge 2014 for English *because*), we aim to examine several other expressions in Czech: *ale* ('but'), *myslím* ('I think'), *jasně* ('surely') – following Schiffrin's (1988) distinction between 'particles' and 'connectives' we include both types (cf. Aijmer 1997, 2002; Simon-Vandenbergen 2000). These lexemes are cross-linguistically considered to belong to the heterogeneous group of discourse/pragmatic markers and have been studied in other languages, especially English, which will allow cross-linguistic comparison. From the point of view of traditional linguistic categorization, these items are sufficiently heterogeneous to allow a brief view into the nature of pragmatic markers in Czech, where these have not been extensively studied so far.

We aim to examine these in terms of their 'rhetorical positioning' (White 2000), which Aijmer et al. (2006) suggest, is the explanation, which allows us to account for the existence of pragmatic markers and their multifunctionality. To account for their functional shifts between various text types, we aim to examine them in both spoken and written Czech. We will use extensive corpus data from the Czech National Corpus and the lexemes will be examined primarily in fiction texts and spontaneous conversation, where they display markedly different frequencies (*ale* in conversation occurs with normed frequency 9229 ipm while in fiction its frequency is 5479 ipm; *myslím* (the most frequent pronunciation variant *myslim*) occurs in conversation with frequency 613 ipm and in fiction 314 ipm and *jasně* occurring in conversation with frequency 559 ipm and in fiction 154 ipm) and their pragmatic functions in speech may be one of the explanatory factors in the differing frequencies. The analysis itself will be carried out on several samples, each sample analysed by two analysts.

References

Aijmer, K. (1997). *I think* — an English modal particle. In T. Swan, O. Jansen Westvik (Eds.), *Modality in Germanic languages. Historical and comparative perspectives*, 1-47. Berlin & New York: Mouton de Gruyter.

Aijmer, K. (2002). Modal adverbs of certainty and uncertainty. In H. Hasselgård, S. Johansson, B. Behrens & C. Fabricius-Hansen (Eds.), *Information structure in a cross-linguistic perspective*, 97-112. Amsterdam: Rodopi.

Aijmer, K. (2013). *Understanding Pragmatic Markers. A Variational Pragmatic Approach*. Edinburgh University Press.

Aijmer, K., Foolen, A. & Simon-Vandenbergen, A.-M. (2006). Pragmatic markers in translation: a methodological proposal. In K. Fischer (Ed.), *Approaches to Discourse Particles,* 101 – 114. Elsevier.

Burridge, K. (2014). *Cos* – A New Discourse Marker for Australian English? *Australian Journal of Linguistics,* 34 (4), 524 – 548.

Čermáková, A., Komrsková, Z., Kopřivová, M. & Poukarová, P. (forthcoming). Between syntax and pragmatics: the causal connective *protože* in spoken and written Czech.

Fischer, K. (Ed.) (2005). *Approaches to Discourse Markers.* Elsevier.

Shiffrin, D. (1988). *Discourse Markers.* Cambridge: Cambridge University Press.

Stenström, A.-B. (1998). From sentence to discourse: *Cos* (*because*) in teenage talk. In A. H. Jucker & Y. Ziv (Eds), *Discourse Markers,* 127-146. Amsterdam: John Benjamins.

Simon-Vandenbergen, A.-M. (2000). The functions of I think in political discourse. International Journal of Applied Linguistics 10 (1), 41-63.

White, P. (2000). Dialogue and inter-subjectivity: Reinterpreting the semantics of modality and hedging. In M. J. Coulthard & F. Rock (Eds.), Working with Dialogue. Tübingen: Niemeyer.

Giusto: A neglected focusing adverb in present-day Italian

Maria Laura Restivo

(University of Bergamo/University of Pavia)

An inventory of present-day Italian focusing adverbs is proposed in several studies: Pecoraro & Pisacane (1984), Lonzi (1991), Ricca (1999) and Andorno (2000). This class comprises three subgroups: *focalizzatori additivi* 'additive focalizers' (for example, *anche*, *pure* 'also'), *focalizzatori restrittivi* 'restrictive focalizers' (such as *solo* 'only', *esclusivamente* 'exclusively') and *identificatori* 'identifiers' (for instance, *proprio* 'exactly') conveying an emphatic assertion of identity (cf. König, 1991: 127). The studies cited above and the more recent ones (see, *inter alia*, De Cesare, 2008, 2010) do not deal with *giusto*, stemming from an adjective meaning 'righteous, fitting', which is mainly used as focusing adverb, as we will see later. Our aim is therefore to bridge this gap providing a syntactic, semantic and pragmatic analysis of *giusto* and explain, through the investigation of Old and Modern Italian corpora (OVI, BibIt), the diachronic path that led to the development of such polyfunctional adverb.

From a preliminary survey of written corpora of contemporary Italian (CORIS, La Repubblica and PEC) it emerges that *giusto* is employed as i) identifier (paraphrasable as 'exactly', as in 1.); ii) restrictive focusing adverb ('only', as in 2.); iii) minimizer: *giusto* has a mitigating function (3. can be reformulated as 'contrary to what you might expect, I do not do great things. I go to the cinema'). Consider the following examples:

1. Debuttò su questo palco **giusto** diciannove anni fa. (La Repubblica corpus)
   'He made his debut on this stage **just** nineteen years ago.'

2. Moravia, Berto, Ottieri -**giusto** per restare tra gli italiani- sapevano e sanno di psicoanalisi. (La Repubblica corpus)
   'Moravia, Berto, Ottieri -**just** to cite Italians- knew and know about psychoanalysis.'

3. Lei disse: "Vado **giusto**   al cinema." (CORIS)
   'She said: "I go **GIUSTO** to the cinema."

This scenario raises some interesting questions:

- Which are the differences and the analogies between *giusto* and the items semantically equivalent?
- How are the readings of the adverb related to one another?
- Did these readings emerge because of specific contextual constraints or because the semantic profile of *giusto* triggered them?

These issues are addressed by means of a synchronic and diachronic analysis highlighting the crucial role played by the interaction between lexical semantics of *giusto* and context in the process of semantic change. Furthermore, results are considered within a cross-linguistic framework in order to stress the similarities between the adverb and its counterparts in other languages, such as English (for *just* see Lee, 1987, 1991, Molina & Romano, 2012) and French (for *juste* see Leeman, 2004).

References

Andorno, Cecilia (2000), *Focalizzatori fra connessione e messa a fuoco. Il punto di vista delle varietà di apprendimento*. Milano, Franco Angeli.

De Cesare, Anna-Maria (2008), Gli avverbi paradigmatizzanti. In *L'interfaccia lingua-testo. Natura e funzioni dell'articolazione informativa dell'enunciato*, A. Ferrari, L. Cignetti, A. De Cesare, L. Lala, M. Mandelli, C. Ricci & C. E. Roggia (eds.), 340-361. Alessandria, Edizioni dell'Orso.

De Cesare, Anna-Maria (2010), On the focusing function of focusing adverbs. A discussion based on Italian data. In *40 Jahre Partikelforschung/40 Years Particle Research*, E. Hentschel (ed.), Linguistik Online 44/4. ⟨www.linguistik-online.com⟩

König, Ekkehard (1991). *The Meaning of Focus Particles: A Comparative Perspective*. London, Routledge.

Lee, David A. (1987), The semantics of *just*. *Journal of Pragmatics*, *11*, 377-398.

Lee, David A. (1991), Categories in the description of Just. *Lingua*, *83*, 43-66.

Leeman, Danielle (2004), L'emploi de *juste* comme adverbe d'énonciation. *Langue française*, *142*, 17-30.

Lonzi, Lidia (1991), Il sintagma avverbiale. In *Grande grammatica italiana di consultazione*, Vol. 2, L. Renzi & G. Salvi (eds.), 341-412. Bologna, il Mulino.

Molina Clara & Romano Manuela (2012), JUST Revisited: Panchronic and Contrastive Insights, *International Journal of English*, *12*, 17-36.

Pecoraro, Walter & Pisacane, Chiara (1984), *L'avverbio*. Bologna, Zanichelli.

Ricca, Davide (1999) Osservazioni preliminari sui focalizzatori in italiano. In *Grammatica e discorso. Studi sull'acquisizione dell'italiano e del tedesco*, N. Dittmar & A. Giacalone Ramat (eds.), 146-164. Tübingen, Stauffenburg.

Corpora

BibIt = Biblioteca Italiana, http://www.bibliotecaitaliana.it/

CORIS = Corpus di riferimento dell'italiano scritto, http://corpora.dslo.unibo.it/TCORIS/

La Repubblica corpus,http://dev.sslmit.unibo.it/corpora/corpus.php?path=&name=Repubblica

OVI = Opera del Vocabolario Italiano, http://gattoweb.ovi.cnr.it/

PEC = Perugia corpus, https://www.unistrapg.it/cqpweb/

Dative Clitics and their Import in Romanian Ditransitives

Alexandra Cornilescu & Alina Tigău

(University of Bucharest & Universitz of Bucharest and University of Köln)

The goal of this paper is to present the results of an experiment carried out on Romanian ditransitive constructions (DC) and to put forth evidence supporting a derivational analysis of these configurations. Numerous studies on Romance, paralleling accounts on English, have assumed structural differences between DCs with clitic doubled indirect objects and their non-doubled counterparts, grouping the former with Double Object Constructions (DOC) and the latter with Prepositional Datives (Demonte 1995, Cuervo 2003,a.o.).

Diaconescu&Rivero (2007), currently the most complete available study on Romanian DCs, propose an alternative projection account according to which cliticless DCs correspond to (1), while DCs containing clitic doubled dative DPs correspond to (2):

(1) $[_{VoiceP}DP_{Agent}Voice[_{vP} v[_{PP}DP_{Theme}P DP_{Goal}]]]$
(2) $[_{VoiceP}DP_{Agent}Voice[_{vP} v[_{ApplP}DP_{Goal}[\textbf{cl}_{Appl}][_{VP}V DP_{Theme}]]]]$

In (1) the dative is a PP c-commanded by the DP_{Theme} while in (2) it is introduced by a LowAppl head, it is interpreted as a Possessor and it c-commands the DP_{Theme}, determining the well-known asymmetries in Barss&Lasnik (1987). D&R claim that these properties hold *only if the Goal is clitic doubled*. Hence their conclusion that in Romanian, DOC interpretations require Clitic Doubling(CD) and that Appl spells out as a *clitic*.

A closer look at Romanian binding data, however, indicates that: DOC readings *do not depend on CD;* the two internal arguments show *symmetric c-command*; The analysis above is severely *incomplete*, excluding many grammatical patterns: the following acceptable example shows that an undoubled (i.e. low) dative may bind into a Theme, contrary to the prediction of (1): *Angajatorii nu au dat **tuturor muncitorilor**$_i$ drepturile **lor**$_i$ bănești,* 'The employers didn't give all the workers their due money.

In view of these new experimental data, we argue against the purported existence of two distinct configurations and propose a unified analysis of DCs for Romanian wherein ditransitives instantiate the DOC configuration irrespective of whether they carry CD.

We analyze dative DPs as second objects merging in a low position (3). Like Larson(2010) we take *the Goal to be part of the verb's a-structure.* Appl case licenses the Dative. Additionally, Appl carries a [*u*person,EPP] feature valued by movement of a semantically appropriate or clitic-doubled dative to Spec ApplP, in a position where it c-commands the Theme. The higher possessor reading of the dative is thus derivationally obtained by valuing the strong [person] of the Vappl head.

(3) $[_{ApplP}Appl_{[uPerson, EPP]}[_{VP}DP_{theme}[VDP_{goal}]$

As to *free word-order*, we adopt MacDonald's (2015) suggestion, that while the Dative must raise to get the Possessor interpretation, at PF, it may be pronounced either in the higher or in the lower position, with the choice depending on discourse factors.

The proposed analysis makes several correct predictions: Firstly, it is expected that an undoubled Theme may bind into an (un)doubled Goal, since in the basic configuration Theme c-commands Goal. This is indeed so as the results of the experiment show. The *symmetric binding potential* property is

also predicted: Theme>Goal interpretations rely on the initial configuration, while Goal>Theme readings result from the obligatory raising of the Possessor-Goal to Spec,ApplP position.

References

Barss, Andrew & Howard Lasnik (1986): A Note on Anaphora and Double Objects, Linguistic Inquiry 17, 347–354.

Cuervo, M. C. 2003. *Datives at large*. Doctoral dissertation, MIT.

Demonte, V. 1995. Dative alternation in Spanish. *Probus* 7, pp. 5-30. http://dx.doi.org/10.1515/prbs.1995.7.1.5

Diaconescu, Constanţa Rodica & María Luisa Rivero. 2007. An applicative analysis of double object constructions in Romanian, *Probus*, 7, pg. 5-30.

Larson, Richard K. 2010. On Pylkkänen's semantics for low applicatives. *Linguistic Inquiry* 41:701-704.

MacDonald, J. 2015. A Movement Analysis of Some Double Object Constructions. *Proceedings of the 32nd West Coast Conference on Formal Linguistics,* ed. Ulrike Steindl et al., 276-285. Somerville, MA: Cascadilla Proceedings Project.

A diachronic approach to quantifying grammaticalization

David Correia Saavedra

(University of Neuchâtel / University of Antwerp)

There is a broad consensus that grammaticalization is a process that is gradual (Traugott and Trausdale 2010) and largely unidirectional: lexical elements acquire grammatical functions, and grammatical elements can undergo further grammaticalization (Hopper and Traugott 2003: 99-169). This consensus is based on substantial cross-linguistic evidence. While most existing studies present qualitative evidence, this paper discusses a quantitative approach that tries to measure degrees of grammaticalization in a systematic way, thereby complementing existing qualitative work. In earlier work (Author 2016), we have applied this approach to synchronic corpus data. This paper tests whether the approach makes accurate predictions for historical data.

The grammaticalization score that we propose is calculated on the basis of several parameters that are known to play a role in grammaticalization (Lehmann 2002, Hopper 1991), namely frequency, word length in phonemes, collocational diversity, colligate diversity and dispersion. These variables are used in a binary logistic regression model (Gries 2009) which can assign a score to a given linguistic item that reflects its degree of grammaticalization. For this purpose, twenty items have been selected in order to analyse their grammaticalization score over time. The selected items include grammatical elements such as the auxiliary *have*, weakly grammaticalized elements such as the preposition *considering*, and clearly lexical items such as *view*. They thus reflect a broad range of morphosyntactic categories and degrees of grammaticalization.

The Corpus of Historical American English (1810s-2000s) is used to retrieve the relevant variables. Time chunks of 10 years are going to be taken into account. This means that each item will have 20 entries and that each point of measurement can receive a grammaticalization score using the variables mentioned above. The aim is to check how grammaticalization scores develop over time. For grammaticalizing elements, we expect increases. Lexical elements should not show increases. Fully grammaticalized items are not necessarily expected to increase. Our discussion of the scores will take

into account the specificities of each item. We will also address whether the method yields the expected results for all the items, or whether there are unexpected fluctuations or trends in the opposite direction.

The main theoretical value of our approach is that it can offer an empirically operationalized way of measuring unidirectionality in grammaticalization, as opposed to a more qualitative observation based on individual case studies. Once our approach is fine-tuned and in line with independent empirical observations, a much larger number of items can be included in the future, so that it can be scaled up to the analysis of larger databases.

References

Gries, Stefan Th. 2009. *Statistics for Linguistics with R. A Practical Introduction*. Berlin: Mouton de Gruyter.

Hopper, Paul J. 1991. On Some Principles of Grammaticalization. In: Traugott E.C. and Heine, B. (eds). *Approaches to Grammaticalization*. 17-35.

Hopper, Paul J. and Traugott, Elizabeth Closs. 2003. *Grammaticalization*. Cambridge: Cambridge University Press.

Lehmann, Christian. 2002. *Thoughts on grammaticalization*. Arbeitspapiere des Seminars für Sprachwissenschaft der Universität Erfurt 9.

Traugott, Elizabeth Closs and Trousdale, Graeme. 2010. *Gradience, Gradualness and Grammaticalization*. Typological Studies in Language 90. Amsterdam: John Benjamins Publishing Company.

Construct forms of nouns in typological perspective

Denis Creissels

(University of Lyon)

In this presentation, I argue that a notion of *construct form of nouns* generalizing the notion of *construct state* traditional in Semitic linguistics may help to capture similarities in the nominal system of languages that are not immediately apparent in current accounts, due to the use of different terms in different traditions.

In Semitic linguistics, 'construct state' applies to nouns immediately followed by another noun in the role of genitival modifier, or by a bound pronoun in possessive function. For example, in Hebrew, **bajit** 'house' occurs as **be(j)t** when immediately followed by another noun in genitive function, as in **be(j)t sefer** 'school' ('house of book'); similarly, **malkah** 'queen' occurs as **malkat**, as in **malkat ha-medina** 'the queen of the country'.

Cross-linguistically, it is relatively common that person markers attached to the head noun cross-reference genitival dependents. Morphological marking of head nouns including no reference to features characterizing the dependent may be less common, but it is by no means limited to the Semitic languages.

Creissels (2009) proposed 'construct form' as a general label for noun forms found in a number of Subsaharan languages that are obligatory in combination with some types of dependents, and cannot be analyzed as instances of cross-referencing in the genitive construction. For example, in Wolof (Niger-Congo, Atlantic), a construct form with a suffix **-u** (sg.) / **-i** (pl.) is obligatory for nouns followed by a genitival dependent, and occurs in no other context.

Like case forms, construct forms are conditioned by the syntactic status of nouns, but case encodes the role of NPs as elements of broader constructions, irrespective of their internal structure, whereas construct forms encode information on the internal structure of NPs. Construct forms show cross-linguistic variation with respect to the following parameters:

– the types of dependents that require the use of a construct form of their head;

– the distinction between construct form markers encoding nothing more that the presence of a certain type of modifier, and construct form markers expressing some features of the head noun (number, gender).

In this presentation, I show that construct forms similar to those analyzed in (Creissels 2009) can be found elsewhere in the world. In particular, they are not rare among Amerindian languages. For example, in Classical Nahuatl, possessive prefixes encoding the person of a possessor attach to a special stem including a suffix **-uh** (sg.) / **-huān** (pl.), as in **cihuātl** 'woman, wife' > **no-cihuā-uh** (1SG-wife-CSTR.SG) 'my wife'.

Hungarian is another case in point, since recent accounts of Hungarian morphology (among others É. Kiss & al. 2003) agree that the ending of the possessed form of Hungarian nouns, traditionally described as a possessive suffix encoding person of the possessor, must be decomposed into two successive elements: a construct form marker, or 'general possessive marker' (*általános birtokviszonyjel*), and a marker encoding the person of the possessor, which according to this analysis has a zero form for the 3rd person singular, as in **kocsi-ja-i-Ø** (car-CSTR-PL-3sg) 'his/her cars'.

As regards possible typological correlations, it is worth noting that construct forms are equally attested in *noun– modifier* and *modifier – noun* constructions.

References

Creissels, Denis. 2009. Construct forms of nouns in African languages. *Proceedings of Conference on Language Documentation & Linguistic Theory 2*, Edited by Peter K. Austin, Oliver Bond, Monik Charette, David Nathan & Peter Sells. SOAS, London, November 13-14 2009. pp. 73-82.

É. Kiss, Katalin, Ferenc Kiefer & Péter Siptár. 2003. *Új magyar nyelvtan* [New Hungarian grammar] (3rd edition). Budapest: Osiris Kiadó.

Reconstructing early Western Oceanic: What do preverbal subject markers tell us?

Carlo Dalle Ceste

(Australian National University)

With the exception of St. Matthias and the Admiralty Islands, the Oceanic languages spoken in the western portion of the Melanesian region, both mainland Papua New Guinea and offshore islands, have been grouped within the Western Oceanic (WOc) subgroup of Oceanic (Ross 1988). It is still unclear, however, whether this group of languages descended from an ancestor other than Proto Oceanic (POc) itself, as the patterns of genealogical relations in Western Oceanic are complex and often symptomatic of dialect differentiation rather than innovation-defined subgrouping.

In my presentation, I aim to provide clearer evidence for the classification of these languages, and, consequently, the reconstruction of their putative ancestor: early Western Oceanic. Since pronouns play a major role in the traditional method of reconstruction, I will look at the morphology of preverbal subject markers (PSM): one of the most characteristic features of WOc languages.

With the main exception of Ross & Lithgow (1989), left-headed (verbal) morphology in Oceanic has received relatively little attention. All the same, PSM are relevant grammatical forms, as not only serve to index the subject on the verbal complex (VC), but may also convey other functions, such as the expression of TAM categories. Quite a few WOc languages have two and, in fewer cases, even more, sets of PSM, according to the mood they express. This is exemplified in (1) and (2) below, where PSM forms are differentiated in Realis (real) vs. Irrealis (irr).

(1)

ani	nora	**i**-mat	(Medebur)
3sg	yesterday	**3sg.real**-die	

    "He died yesterday"

(2)

ga-pit-ke
3sg.**irr**-come.from-fut
"He will come from there" (Ross 1976-82)

These portmanteau forms may play a crucial role in reconstructing early WOc, as they witness multiple layers of grammaticisation of "formerly unbound morphemes into the VC" (Ross 1988). PSM, indeed, appear either as prefixes, clitics or free words, and point not only to different degrees of grammaticisation, but also different sources (e.g. independent pronouns, possessive pronouns, articles, TAM markers, etc.). In my presentation, I will provide (i) a detailed typology of PSM, according to both their formal and functional features, and (ii) a full reconstruction of these forms in early WOc. After a comparison of the latter with Ross' (1988) POc reconstruction, I will show that WOc languages may have had a period of shared development, setting them apart from the rest of Oceanic, and that early WOc may have been distinct from POc.

References

Ross, Malcolm D. 1976-1982. Unpublished fieldnotes: the languages of western Melanesia and the south-east Solomons. The Australian National University.

Ross, Malcolm, D. 1988. *Proto Oceanic and the Austronesian languages of western Melanesia.* Canberra: Pacific Linguistics.

Ross, Malcolm, D. & Lithgow, David, R. 1989. The prehistory of some Western Oceanic tense/mood markers: insights from natural morphosyntax. Draft only.

Language contact and simplification: The Case of Bessarabian Ukrainian

Andriy Danylenko

(Pace University)

In the literature on contact-induced grammatical change it has been repeatedly pointed out that language contact often brings about loss of grammatical categories (Kuteva, Heine 2012). For instance, European-based creoles and creoloids are all widely agreed to owe their relative structural

simplicity to language contact; and koines to dialect contact (Trudgill 1986); all these varieties are characterized by increased analyticization based on a diachronic definition (Haspelmath, Michaelis 2017). Considerable lexical and structural convergence, identified as simplification (if viewed synchronically) or analyticity (if viewed diachronically), due to centuries of intense, intimate, and sustained contact, is posited for Balkan Slavic. The latter is characterized, in particular, by a reduction in the system of morphological cases, the formation of a future tense based on a reduced, often invariant, form of the verb 'to want', the use of an enclitic (postposed) definite article and so forth (Hinrichs 2004; Joseph 2010).

We argue that contact between genetically close Indo-European inflecting varieties within a convergence zone is likely to bring about two types of simplification which are analytic and synthetic simplification. Analytic simplification (analyticization) is observed in Slavic Balkan and Germanic (different varieties showing different degrees of analyticization) and Romance languages (French showing more advanced grammaticalization, compared to Italian and Spanish). Synthetic simplification (Danylenko 2015) ('anasynthesis' or, 'desyntheticization' in Haspelmath, Michaelis 2017) is driven by the reversal of the grammaticalization of analytic features in the inflecting languages spoken primarily in dialect varieties. Thus, in North Russian the use of the instrumental case ending to mark both comitative and instrumental participants is an innovation based on ellipsis of the information redundant from the point of view of the speaker (Danylenko 2015).

The aforementioned types of simplification are all attested in Bessarabian Ukrainian spoken in a nascent linguistic area situated in South Ukraine between the Dniester and Danube rivers. On the one side, Bessarabian Ukrainian is found in 'external contact' with Russian, Bulgarian, Rumanian, Gagauz, Albanian, Roma, and German (until the mid-20th century) which is likely to explain cases of analytic simplification or, analyticization. On the other side, Bessarabian Ukrainian is a case of the 'internal contact' among multiple Ukrainian dialect types, sometimes with a hidden dialect foundation due to several waves of Ukrainian settlers coming to this area since the early 19th century; one encounters here some transitional systems, several southwestern dialects, one northern dialect, and the rest being southeastern dialects (Kolesnykov 2015). The postulated 'internal contact' can explain a drift of Bessarabian Ukrainian toward synthetic simplification or, desyntheticization, as found, for instance, in elimination of prepositions conveying "redundant" information within a small speech community characterized by excessive background information.

References

Danylenko, Andrii. 2015. On the mechanisms of the grammaticalization of comitative and instrumental categories in Slavic. *Journal of Historical Linguistics* 5 (2): 267–96.

Joseph, Brian D. 2010. Language contact in the Balkans. In: Hickey, Raymond (ed.). *The Handbook of Language Contact*, 618–33.

Haspelmath, Martin and Susanne Maria Michaelis. 2017. Analytic and synthetic: Typological change in varieties of European languages. In: Buchstaller, Isabelle and Beat Siebenhaar (eds.). *Language Variation – European perspectives VI: Selected papers from the 8th International Conference on Language Variation in Europe (ICLaVE 8), Leipzig 2015*, 1–17. Amsterdam: Benjamins.

Hinrichs, Uwe. 2004. Orale Kultur, Mehrsprachigkeit, radikaler Analytismus: Zur Erklärung von Sprachstrukturen auf dem Balkan und im kreolischen Raum. Ein Beitrag zur Entmystifizierung der Balkanlinguistik. *Zeitschrift für Balkanologie* 40 (2), 141–174.

Kolesnykov, Andrij Oleksandrovyč. 2015. *Morfolohija ukrajinsʹkyx pivdennobesarabsʹkyx hovirok: heneza i dynamika*. Izmajil: SMYL.

Kuteva, Tania and Bernd Heine. 2012. An integrative model of grammaticalisation. In: Wiemer, Björn, Wälchli, Bernhard and Björn Hansen (eds.). *Grammatical Replication and Borrowability in Language Contact*, 159–190. Berlin/Boston: Mouton de Gruyter.

Trudgill, Peter. 1986. *Dialects in Contact*. Oxford: Blackwell.

On the Nature of "Hierarchical Alignment"

Scott DeLancey

(University of Oregon)

A considerable literature refutes the idea that "hierarchical" argument indexation in the verb can be explained in terms of hierarchical ranking (DeLancey 1981, Filimonova 2005, Macauley 2009, Witzlack-Makarevich et al. 2011). If earlier characterizations are incorrect, then earlier explanations for the phenomenon must be reconsidered. Accounts in terms of agency (Silverstein 1976, Sierwierska 2004) or topicality (Givón 1994, etc.) are problematic, but not necessarily inconsistent with the typological patterns seen in the marking of mixed transitive configurations (Zuñiga 2006), with one Speech Act Participant (SAP) and one 3rd person argument. But neither approach provides any insight at all into the idiosyncratic and inconsistent patterns observed in the local configurations 1→2 and 2→1. As suggested by Heath (1991, 1998) these phenomena are better explained in terms of sociopragmatic notions of face management in interpersonal interaction.

Among Tibeto-Burman languages local forms are often impersonal or passive (Bickel&Gaenszle 2015, Jacques to appear), or inclusive plural (DeLancey to appear). This recalls kinds of sociopragmatic substitution that we find for SAP pronominal reference: impersonal >1pl (French *on*), Inclusive or Exclusive plural >1sg (Cysouw 2005, Cho 2016), Inclusive >2sg (DeLancey 2013, Ozerov 2016), etc. The forms used to index local configurations suppress, through detransitivization, or diffuse, through use of plural, reference to the responsibility of the A argument in the event. In both local forms reference to the SAP O argument seems to be relatively safe, but reference to the A is dangerous. This has nothing to do with probable agency or inherent topicality; it is grammaticalization of face management.

This is a productive way to think about deictic indexation in "mixed" categories as well: the notion of "hierarchical" indexation is not about any ranking of anything, but about maintaining interpersonal relations during conversation. Dahl (2000) shows that reference to SAP's is common in conversation, but rare in narrative; grammars, and grammatical categories, are usually based on the latter. We can see hierarchical indexation as not about "topicality", but about Dahl's "egophoricity" (a term now preempted elsewhere) – reference to SAP's in conversation. Then other phenomena can be seen as closely linked. In particular, many TB languages with subject rather than hierarchical agreement have independently innovated SAP Object indexation, often involving a single form which indifferently indexes 1st or 2nd person O arguments (DeLancey 2013, to appear). This may be followed by loss of A indexation, as in Mizo or Mara, leaving something very similar to canonical hierarchical alignment.

Past attempts to interpret hierarchical alignment, and the associated phenomenon of inverse marking, in the same kinds of terms as voice, were motivated partly by superficial similarity in structure. But they also reflect the fact that we are unaccustomed to think about highly grammaticalized structures in sociopragmatic terms. Work such as Heath's and Dahl's point to the importance of this neglected dimension. In hierarchical indexation and related phenomena such as inverse marking and unitary SAP O indexation (Konnerth 2015, DeLancey to appear) we see the interaction of sociopragmatics with syntax.

References

Bickel, Balthasar, & M. Gaenszle. 2015. First person objects, antipassives, and the political history of the Southern Kirant. *J. South Asian Lgs & Linguistics* 2:63-86.

Cho, Kwang-ju. 2016. A history of Bantawa verbal agreement system. Workshop on Kiranti Languages, CRLAO, Paris.

Cysouw, Michael. 2005. Syncretisms involving clusivity. In Elena Filimonova (ed.), *Clusivity: Typology and Case Studies of the Inclusive-Exclusive Distinction*, 73-111. Amsterdam: Benjamins.

Dahl, Östen. 2000. Egophoricity in discourse and syntax. *Functions of Language* 7.1: 37-77.

DeLancey, Scott. 2013. Argument indexation (verb agreement) in Kuki-Chin. Presented at the 46th International Conference on Sino-Tibetan Languages and Linguistics, Dartmouth College, Hanover, New Hampshire.

DeLancey, Scott. to appear. Hierarchical and accusative alignment of Verbal Person Marking in Trans-Himalayan. *Journal of South Asian Languages and Linguistics*.

Filimonova, Elena. 2005. The noun phrase hierarchy and relational marking: Problems and counterevidence. *Linguistic Typology* 9: 77-113.

Givón, T. 1994. The pragmatics of de-transitive voice: Functional and typological aspects of inversion. In *Voice and inversion*, T. Givón (ed), 3-44. Amsterdam: Benjamins.

Heath, Jeffrey. 1991. Pragmatic disguise in pronominal-affix paradigms. In *Paradigms: The Economy of Inflection*, Frans Plank (ed), 75-89. Berlin: de Gruyter.

Heath, Jeffrey. 1998. Pragmatic skewing in 1←→2 pronominal combinations in Native American languages. *IJAL* 64(2): 83-104.

Konnerth, Linda. 2015. A new type of convergence at the deictic center: Second person and cislocative in Karbi (Tibeto-Burman). *Studies in Language* 39(1): 24-45.

Lockwood, Hunter, & Monica Macaulay. 2012. Prominence hierarchies. *Language and Linguistics Compass* 6/7: 431-446.

Macauley, Monica. 2009. On prominence hierarchies: Evidence from Algonquian. *Linguistic Typology* 13: 357-389.

Ozerov, Pavel. 2016. Morphological complexity and hierarchical agreement in Anal. 49th SLE, Naples.

Siewierska, Anna. 2004. *Person*. Cambridge: Cambridge University Press.

Silverstein, Michael. 1976. Hierarchy of features and ergativity. In R.M.W. Dixon (ed), *Grammatical Categories in Australian Languages*, 112-171. Canberra: AIAS.

Witzlack-Makarevich, Alena, Taras Zakharo, Lennart Bierkandt, & Balthasar Bickel. 2011. Dissecting hierarchical alignment. 44th SLE, Logroño.

Zúñiga, Fernando. 2006. *Deixis and Alignment: Inverse Systems in Indigenous Languages of the Americas*. Amsterdam: John Benjamins.

(Non-)factivity in diachrony: Spanish *el hecho de que* ('the fact that')

Manuel Delicado Cantero & Patrícia Amaral

(Australian National University & Indiana University)

Since Kiparsky & Kiparsky (1970), Spanish *el hecho de que* ('the fact of/that') has been used as a test for factivity (1), traditionally considered as semantically equivalent to clausal nominalization *el que* (lit. 'the that') (2) (Demonte 1977; Leonetti 1999):

(1) María lamenta <u>el hecho de que</u> Pedro esté triste
    'Mary regrets the fact that Peter is sad'
(2) María lamenta <u>el que</u> Pedro esté triste
    'Mary regrets (*lit.* the) that Peter is sad'

Serrano (2015) has shown that *el que* is not semantically restricted to factivity, but *el hecho de que* continues to be analyzed as factive (Palmerini 2006; Becker 2014; Serrano 2015). Furthermore, recent studies (Becker 2014: 304) analyze *el hecho de que* as a relatively modern construction. However, we show that this conclusion is untenable.

We examine the diachrony of *el hecho de que* with two main goals. Firstly, we show that the N *hecho* (or *fecho*) modified by a clause –whether finite or non-finite– is already attested as early as the 16th century (3). This development patterns with a broader syntactic change in Spanish in the evolution of clauses selected by nouns (Delicado 2013):

(3)   Se pregunta si es causa justa de hacer la guerra la infidelidad de los bárbaros, y <u>el hecho de que</u> rechacen el evangelio (16th c.)
    'S/he wonders whether the unfaithfulness of the barbarians and the fact that they reject the gospel are fair causes for war'

Secondly, while (3) is factive, we provide historical evidence of non-factive interpretations. We find that non-factive readings are linked to the non-veridicality of the whole sentence through (i) the negation of positive implicative verbs (Kartunnen 1971) like *consentir* 'allow' (4), and through (ii) non-veridical selecting predicates (5). Non-factive contexts continue to be attested beyond the 16-17th centuries (6), and even to this day (Amaral & Delicado 2016):

(4)   <u>el hecho de</u> degollar a su hijo de ninguna suerte lo *consintió* (16th c.)
    'The fact of slitting his son's throat, he didn't allow it at all'
(5)   En <u>el hecho de que</u> fuese muerto por nuestros segovianos *hay mucha duda* (17th c.)
    'It is highly doubtful that he was killed by our people from Segovia'
(6)   ¿De modo que *consideras como cierto* <u>el hecho de que</u> ese hombre ame a doña Catalina y a doña María? (19th c.)
    'So you consider it to be true that that man loves lady Catalina and lady María?'

Our paper shows that *el hecho de que* is attested earlier than previously acknowledged and challenges existing semantic analyses of it as exclusively factive. We highlight the role of the veridicality properties of the whole sentence (Schulz 2003) and the contribution of lexico-semantic constraints of N *hecho* in the interpretation of the construction.

In situating the history of *el hecho de que* within the general pattern of clausal subordination to nouns, our paper contributes to the exploration of the compositionality of constructions/collocations and (light) nouns (Pustejovsky 1995; Mendívil 1999; Panagiotidis 2015). It brings a historical perspective to debates on veridicality (Karttunen & Zaenen 2005).

References

Amaral, P. & M. Delicado Cantero. 2016. "Not a fact: A synchronic analysis of *el hecho de* and *o facto de*". Paper under review.

Becker, M. 2014. "Informational status and the semantics of mood in Spanish preposed complement clauses". In A. Dufter & A. Octavio de Toledo (eds.), *Left Sentence Peripheries in Spanish*, 283-308. Amsterdam: John Benjamins.

Delicado Cantero, M. *Prepositional clauses in Spanish: A diachronic and comparative syntactic study.* Boston: De Gruyter.

Demonte, V. 1977. *La Subordinación Sustantiva.* Madrid: Cátedra.

Karttunen, L. 1971. *The Logic of English Predicate Complement Constructions*. Bloomington: Publications of the Indiana University Linguistics Club.

Karttunen, L. & Zaenen, A. 2005. "Veridicity". In G. Katz, J. Pustejovsky & F. Schilder (eds.), *Annotating, Extracting and Reasoning about Time and Events*. Dagstuhl (Germany). http://drops.dagstuhl.de/opus/volltexte/2005/314/

Kiparsky, P. & Kiparsky, C. 1970. "Fact". In M. Bierwisch & K.E. Heidolph (eds.), *Progress in Linguistics*, 143-173. The Hague: Mouton.

Leonetti, M. 1999. "La subordinación sustantiva: las subordinadas enunciativas en los complementos nominales". In I. Bosque & V. Demonte (eds.), *Gramática Descriptiva de la Lengua Española,* 2083-2104. Madrid: Espasa-Real Academia Española.

Mendívil Giró, J.L. 1999. *Las Palabras Disgregadas. Sintaxis de las Expresiones Idiomáticas y los Predicados Complejos*. Zaragoza: Prensas Universitarias de Zaragoza.

Palmerini, M. 2006. "Factividad en la nominalización: sobre la estructura [*el hecho/il fatto* + subordinada] en español e italiano". In C. Mourón & T. Moralejo (eds.), *Studies in Contrastive Linguistics,* 761-768. Santiago: Universidad de Santiago de Compostela.

Panagiotidis, P. 2015. *Categorial Features. A Generative Theory of Word Class Categories*. Cambridge: Cambridge University Press.

Pustejovsky, J. 1995. *The Generative Lexicon*. Cambridge: MIT Press.

Schulz, P. 2003. *Factivity: its Nature and Acquisition*. Tübingen: M. Niemeyer.

Serrano, S. 2015. *Subordinación y Determinación: Completivas precedidas de Artículo Definido en Español.* PhD diss., Universidad Autónoma de Madrid & Instituto Universitario Ortega y Gasset.

Merge, externalization and interface asymmetries

Anna Maria Di Sciullo

(University of Quebec in Montreal/New York University)

We focus on the derivations of cardinal numerals and time denoting expressions (Kayne 2005, 2015, 2016; Ionin & Matushansky 2006; Chierchia 2013, a.o.) e.g. *hundred (and) one*, *cento (e) uno* (It), *le due e trenta* (It.) (the two and thirty) vs. *two thirty*. We provide an analysis of variation in the pronunciation/silence of the intermediate functional head, identify its predictions and draw consequences for linguistic theory.

1. We assume that cardinal numerals merge with additive and multiplicative morphology in the derivation of complex numerals (Di Sciullo 2012, 2015) e.g. *hundred (and) one, hundred(s) (of) thousand(s).* Focusing on the additive morphology, we argue that its apparent optionality in some languages follows from the theory. Given derivation by phases (Chomsky 2008 *et seq.*), and Collins (2007) Externalization Condition according to which either the Specifier or the Head must be pronounced, and if the Specifier has phonetic feature, it must be pronounced, it follows that the

functional head F must be pronounced when the Specifier of F is not filled. This it is the case in *hundred one*, (1a), where feature valuation is done via External and Internal Merge, but not in *hundred and one*, (1b), where Internal Merge does not apply and the functional head is silent (<AND>).

(1) a. [hundred$_{\{[F], [Num]\}}$ F [hundred$_{\{[F], [Num]\}}$ [AND$_{\{[F], [ADD], [uNum]\}}$ one$_{\{[F], [Num]\}}$]]]
     b. [hundred $_{\{[F], [Num]\}}$ [<AND$_{\{[F], [ADD], [uNum]\}}$> one $_{\{[F], [Num]\}}$]]
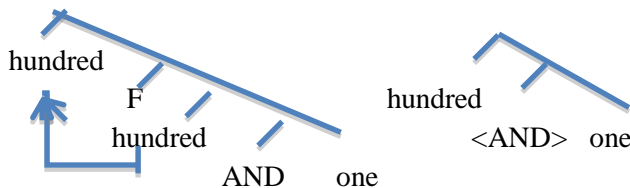
Independent evidence that Internal Merge applies in the derivation of cardinal numbers comes from the diachrony of numerical systems. For example, in Latin the digit precedes the base, e.g. *octo decim* (Lat) (eight ten), while it follows in modern Italian *dicitto* (ten eight) 'eighteen'. Variation in the order and the pronunciation/silence of constituents follow from the theory (Kayne 2005, Author 2016a, a.o). 2. Time counting expressions include unpronounced nouns, such as HOUR and O'CLOCK (Kane 2003, 2006, 2015), as well as additive morphology (Di Sciullo 2016a, b). There is cross-linguistic variation in the pronunciation of AND, e.g *le due e trenta* (It.) 'the two and thirty' vs. *two thirty*. We show that the derivation in (1) for cardinals extends to time denoting expressions, (2).

(2) a. [due$_{\{[F], [Num]\}}$ F [due$_{\{[F], [Num]\}}$ <ORE> [E$_{\{[F], [ADD], [uNum]\}}$ tenta $_{\{[F], [Num]\}}$ <MINUTI>]]]   (It)
     b. [two$_{\{[F], [Num]\}}$< HOURS> [<AND$_{\{[F], [ADD], [uNum]\}}$> thirty $_{\{[F], [Num]\}}$ <MINUTES>]]   (En)

Independent evidence for the derivations in (1)-(2) comes from the variation in the pronunciation/silence of the prepositions AT/TO in the locative the determiners of Fallese, a dialect spoken in Abruzzi, *(a)ecche/(a)locche* 'here/there'. The preposition is pronounced only when its Specifier is not filled, (3), (Author 2017).

(3)   a. [$_P$ [$_P$ A $_{\{[P], [uD], \{LOC]\}}$ ecche $_{\{[D], [LOC]\}}$]]
        b. [$_P$ ecche $_{\{[D], [LOC]}$ [$_P$ <A> $_{\{[P], [uD], [LOC]\}}$ ecche $_{\{[D], [LOC]\}}$]]

A unified analysis of the apparent optionality of functional morphology in complex cardinals, time counting expressions brings further support to the Strong Minimalist thesis (Chomsky 1995 *et seq.*) as well as it provides an explanation for interface asymmetries.

References
Chomsky, N. 1995. The Minimalist Program. Cambridge, MA: The MIT Press.
Chomsky, N. 2005. Three Factor in Language Design. *Linguistic Inquiry*. 36:1-22.
Chomsky, N. 2008. On Phases. In *Foundational Issues in Linguistic Theory. Essays in Honor of Jean-Roger Vergnaud*, eds. Robert Freidin, Carlos Peregrín Otero and Maria Luisa Zubizarreta, 133–166. Cambridge, MA: MIT Press.
Chierchia, G. 2013. *Logic and Grammar.* Oxford Studies in Semantics and Pragmatics. Oxford University Press.
Collins, C. 2007. Home Sweet Home. *NYU Working Papers in Linguistics* 1: 1-27.
Di Sciullo, A.M., 2017. Variation in the Pronunciation/Silence of the Prepositions in Locative Determiners. LSA proceedings.

Di Sciullo, A.M. & L. Jenkins, 2016a. Biolinguistics and the Human Language Faculty. *Language*. 192, 3: e1-e32.

Author 2016b. Aspect in Time. SLI presentation.

Di Sciullo, A.M., 2015. On the Domain Specificity of the Human Language Faculty and the Effects of Principles of Computational Efficiency: Contrasting Language and Mathematics. *Linguistica*, 11: 28-56.

Di Sciullo, A.M., 2012. Biolinguistics, Minimalist Grammars and the Emergence of Complex Numerals. In *Evolang IX. Workshop on Theoretical Linguistics/Biolinguistics*, pp. 13-18.

Ionin, T. and O. Matushansky. 2006. The Composition of Complex Cardinals. *Journal of Semantics* 23, 315-360.

Kayne, R. 2015. The Silence of Heads. Ms, NYU.

Kayne, R. S. 2005. *Movement and Silence*. Oxford: OUP.

Kayne, R. S. 2006. On Parameters and on Principles of Pronunciation. In *Organizing Grammar: Linguistic Studies in Honor of Henk van Riemsdijk*, ed. Hans Broekhuis et al., 289-299. Berlin: Mouton de Gruyter.

Kayne, R. S. 2012. A Note on *Grand* and its Silent Entourage. *Studies in Chinese Linguistics* 33: 71-85.

Kayne, R. S. 2016. Some thoughts on *One* and *Two* and Other Numerals, ms NYU.

Liao, W.R., & D. Shi. 2013. To Pronounce or not to Pronounce: Locating Silent Heads in Chinese and English. *Studies in Chinese Linguistics*. 34: 1:55-65.

Pesetsky, D. & E. Torrego. 2004. The Syntax of Valuation and the Interpretability of Features. MIT and UMass.

New perspectives on the emergence of sentence-internal capitalization in German

Lisa Dücker, Stefan Hartmann, & Renata Szczepaniak

(University of Hamburg)

Sentence-internal capitalization of nouns is a distinctive characteristic of the German spelling system. Its diachronic emergence in the 16th and 17th centuries has received much attention in recent decades (e.g. Kämpfert 1980, Moulin 1990, Bergmann & Nerius 1998). In particular, the corpus-based study by Bergmann & Nerius (1998) has shown that animacy and reverence play a major role in the evolution of this graphemic convention: Words denoting deities and saints as well as words denoting persons of a high social rank are capitalized first; later on, words referring to animals and concrete things are capitalized; eventually, then, all nouns, including abstract nouns, are capitalized.

A recent corpus-based study (Barteld et al. 2016) based on a small corpus of 18 protocols of 16th- and 17th-century witch trials has followed up on this line of research and extended the scope of investigation by taking a multifactorial approach and by focusing on handwritten, rather than printed, texts. As court protocols are usually produced spontaneously, they arguably offer a more direct insight into "online" language production and thus into potential cognitive factors driving the use of sentence-internal capitals in its early stages. It has been shown that apart from animacy, other factors such as lemma frequency and the internal structure of the noun (simplex vs. compound) seem to play a role in the scribes' choice between uppercase and lowercase initials.

The aim of the present paper is twofold. On the one hand, we substantiate the results obtained by Barteld et al. (2016) on the basis of a larger corpus, comprising all 56 witch interrogation protocols edited by Macha et al. (2005). Using binomial mixed-effects regression modelling, we show that animacy and frequency again emerge as significant effects influencing the use of sentence-internal capitalization. On the other hand, we go beyond the previous study by taking additional factors into account. Most importantly, we hypothesize that the syntactic functions and semantic roles of the nouns in question may play a significant role: As animacy is closely related to agentivity (Hopper & Thompson 1980; Yamamoto 2008), we assume that agentive nouns in the subject position are more likely to be capitalized than non-agentive ones. In sum, our study aims to demonstrate that sentence-internal capitalization is not exclusively determined by semantic and pragmatic factors, as earlier studies might suggest, but rather emerges through a complex interplay of cognitive, pragmatic, semantic, and syntactic factors.

References

Barteld, Fabian, Stefan Hartmann & Renata Szczepaniak. 2016. The usage and spread of sentence-internal capitalization in Early New High German: A multifactorial approach. *Folia Linguistica* 50(2). 385–412.

Bergmann, Rolf & Dieter Nerius. 1998. *Die Entwicklung der Großschreibung im Deutschen von 1500 bis 1710*. Heidelberg: Winter.

Hopper, Paul J. & Sandra A. Thompson. 1980. Transitivity in Grammar and Discourse. *Language* 56(2). 251–299.

Kämpfert, Manfred. 1980. Motive der Substantivgroßschreibung. Beobachtungen an Drucken des 16. Jahrhunderts. 99. 72–98.

Macha, Jürgen, Elvira Topalović, Iris Hille, Uta Nolting & Anja Wilke (eds.). 2005. *Deutsche Kanzleisprache in Hexenverhörprotokollen der Frühen Neuzeit. Bd. 1: Auswahledition*. Berlin, New York: De Gruyter.

Moulin, Claudine. 1990. *Der Majuskelgebrauch in Luthers deutschen Briefen: (1517 - 1546)*. (Germanische Bibliothek : Reihe 3, Untersuchungen). Heidelberg: Winter.

Yamamoto, Mutsumi. 2008. *Animacy and reference. A cognitive approach to corpus linguistics*. (Studies in Language Companion Series 46). Amsterdam, Philadelphia: John Benjamins.

Reciprocal metathesis: Typology and phonetic basis of a little-studied process

Ander Egurtzegi

(Ludwig-Maximilians University of Munich)

Metathesis has historically been one of the less understood processes in phonology. It was not until the work of Hume (1997, 2004) and Blevins and Garrett (1998, 2004) that we reached a greater understanding of this process and its phonetic basis. In this paper, I present an outline of the little-studied reciprocal metathesis (Ultan 1978), which refers to the cases of metathesis that involve two different non-adjacent segments that exchange their positions with one another without directly affecting the rest of the sequence. This kind of metathesis is exemplified by examples such as Lat. *leriquiae* < Lat. *rēlĭquĭae* 'relic', Fr. *moustique* 'mosquito' (cf. Lat. *musca* 'fly') and non-standard English *irrevelant* < standard English *irrelevant*. Although this process is not as widely discussed in

the literature as other kinds of metathesis, it has been known since the early 20th century (cf. Brugmann 1904 [1970]). This particular kind of metathesis was not included in previous typologies of the process such as that of Blevins and Garrett (2004).

In order for reciprocal metathesis to occur, the two affected segments typically need to be in the same syllabic position —i.e., onset, nucleus or coda— and they need to share some crucial phonological features. In languages such as Basque, reciprocal metathesis affects not only consonants, as in *bage* > *gabe* 'without' or *erakutsi* > *eratsuki* 'show', but vowels as well, as shown by *atera* > *etara* 'come out' or *alkandora* > *alkondara* 'shirt' (Egurtzegi 2014). For a better understanding of the process, this paper presents examples of reciprocal metathesis from a wide variety of languages, including Greek, the Romance languages Spanish and Sardinian, Polish, the Indo-Aryan language Saraiki and Basque.

I hypothesize that, unlike other kinds of metathesis such as perceptual metathesis (Blevins & Garrett 2004), reciprocal metathesis originates in motor planning errors, being similar to the speech error usually regarded as *spoonerism* (MacKay 1970), in which the sequential order of two segments is involuntarily reversed (cf. *overinflated state → overinstated flate*; *pus pocket → pos pucket*; Goldstein 1968). These speech errors are the consequence of the influence of some planning elements —such as gestures— in others through priming, coactivation, inhibition, etc. (Garrett & Johnson 2013). I propose that reciprocal metathesis involves cases of gesture blending errors (motor plan priming) that can be incorporated into a language, thus yielding sound change. This hypothesis implies that not only segments, but also lower units in the speech chain can exchange their sequential positions with one another as an instance of reciprocal metathesis at the feature level. This is the case in languages such as Saraiki (Western Punjabi, Indo-Aryan); compare for instance Hindi *guːɖʰa* to Saraiki *ɖungʰa* 'deep' and Hindi *biʈʈiː* to Saraiki *piɖɖiː* 'small' (Syed 2015).

This study aims to build on the typology of metathesis presented by Blevins & Garrett (2004) by adding a different kind of phonetically driven metathesis, which can be understood under the same assumptions accepted for any other phonetically natural process.

References

Blevins, J., & Garrett, A. The origins of consonant-vowel metathesis. *Language* 74, 508–556.

Blevins, J., & Garrett, A. 2004. The evolution of metathesis. In Hayes, B., Kirchner, R. & Steriade, D. (Eds.), *Phonetically based phonology*. Cambridge: Cambridge University Press, 117–156.

Brugmann, K. 1904 [1970]. Kurze vergleichende Grammatik der indogermanischen Sprachen. Strassburg: Trübner [Berlin: Walter de Gruyter].

Egurtzegi, A. 2014. *Towards a phonetically grounded diachronic phonology of Basque*. PhD Dissertation, University of the Basque Country.

Garrett, A., & Johnson, K. 2013. Phonetic bias in sound change. In Yu, A.C.L. (Ed.), *Origins of sound change: Approaches to phonologization*. Oxford: Oxford University Press, 51–97.

Goldstein, M. 1968. Some slips of the tongue. *Psychological Reports* 22, 1009–1013.

Hume, E. 1997. Metathesis in phonological theory: The case of Leti. *Lingua* 104, 147–186.

Hume, E. 2004. The indeterminacy/attestation model of metathesis. *Language* 80. 203–237.

MacKay, D.G. 1970. Spoonerisms: The structure of errors in serial order of speech. *Neuropsychologia* 8, 323–350.

Syed, N.A. 2015. Dimensions of h-metathesis and phonetic adjustment. Poster presented at the 2nd Edinburgh Historical Phonology Symposium, University of Edinburgh, 4 December, 2015.

Ultan, R. 1978. A typological view of metathesis. In Greenberg, J. (Ed.), *Universals of human language* (vol. 2). Stanford, CA: Stanford University Press, 368–399.

Sound symbolism in nonsense syllables: Vowel pitch matches musical pitch

Gertraud Fenk-Oczlon

(Alpen-Adria-Universität Klagenfurt)

Sound symbolism, the non-arbitrary association between sound and meaning remains a hotly debated topic. Recently Blasi et al. (2016) have found robust correspondences between sound and meaning across a large number of languages, indicating that sound symbolism is more widespread and pervasive than often assumed. A well-known example of sound symbolism is the association between high front vowels like [i y e] and small size, and between low back vowels like [a ɔ o] and large size. Whether acoustic properties of vowels (e.g. intrinsic pitch) or kinaesthetic mechanisms (e.g. oral cavity) are responsible for the sound-size correspondence is an enduring debate which goes back to Sapir 1929 (cf. Lockwood & Dingemanse 2015).

In this paper, I will focus on vowel intrinsic pitch and its pivotal role in specific kinds of sound symbolism. Concerning vowel intrinsic pitch it is known since Meyer (1896) that**,** all else being equal, high vowels have a higher intrinsic fundamental frequency (IF0) than low vowels. Although pitch frequency or fundamental frequency (F0) of vowels is primarily determined by the vibration of the vocal folds, there are also correlations between the height of the formants F1 and F2 and vowel intrinsic pitch.

In Fenk-Oczlon & Fenk (2009a) we hypothesized that in songs containing strings of nonsense syllables the vowels might be connected to melodic direction in close correspondence to their intrinsic pitch. We tested this assumption based on all monophonic Alpine yodelers (n=15) in Pommer's collection from 1893**.** The test revealed a surprisingly uniform pattern: The melody descended in 118 out of 121 [i]→[o] successions and ascended in 132 out of 133 [o]→[i] successions. A similar assumption was tested in Austrian traditional songs, which include successions of nonsense syllables. In 24 out of 26 songs in the Davidowicz collection (1980) we found the expected coincidence between the vowel [i] and the highest pitch in melody (Fenk-Oczlon & Fenk 2009b). Vowel intrinsic pitch also plays a key role in transforming spoken information into whistled languages (Meyer 2008), as well as in many mnemonic systems for transmitting or representing musical melodies (Hughes 2000).

The strong non-arbitrary associations between vowel pitch and musical pitch in meaningless syllables reinforce the assumption that acoustic properties of vowels - rather than kinaesthetic or articulatory mechanisms - are responsible for sound symbolism in meaningful words, in which vowels are cross-modally associated with size, distance mapping, etc.

The findings will be discussed in the context of recent research on sound symbolism.

References

Blasi, D.E., Wichmann, S., Hammarström, H., Stadler, P.F. & Christiansen, M.H. (2016) Sound–meaning association biases evidenced across thousands of languages. *Proc. Natl Acad. Sci.* 113, 10818–10823

Dawidowicz, A. (1980) *Österreichisches Liederbuch. Komm, sing mit!* Innsbruck/Neu Rum: Musikverlag Helbling

Fenk-Oczlon, G. & Fenk, A. (2009a) Some parallels between language and music from a cognitive and evolutionary perspective. *Musicae Scientiae,* 13, 201-226

Fenk-Oczlon, G. & Fenk, A. (2009b) Musical pitch in nonsense syllables: Correlations with the vowel system and evolutionary perspectives. In J. Louhivou et al. (eds.), *Proceedings of 7th Triennial Conference of the Europaean Society for the Cognitive Sciences of Music,* 110-113

Hughes, D. W. (2000) No nonsense: the logic and power of acoustic-iconic mnemonic systems. *British Journal of Ethnomusicology* 9/ii. 95-122

Lockwood, G. & Dingemanse, M. (2015) Iconicity in the lab: a review of behavioral, developmental, and neuroimaging research into sound-symbolism. Frontiers in Psychology, 6: 1246

Meyer, E. A. (1896) Zur Tonbewegung des Vokals im gesprochenen und gesungenen Einzelwort. *Phonetische Studien* 10, 1-21

Meyer, J. (2008) Typology and acoustic strategies of whistled languages: Phonetic comparison and perceptual cues of whistled vowels. *Journal of the International Phonetic Association* 38 (1), 69-94

Pommer, J. (1893) *252 Jodler and Juchezer*. Wien: Rebay & Robitschek

Didn't she say to you: *"Oh my God! in Pafos?"*– Form, patterns and discourse functions of constructed dialogue in conversations employing codeswitching between Cypriot Greek and English

Constantina Fotiou

(University of Essex)

This study examines *self* and *third-person* reported speech, or what I call following Tannen (2007), 'constructed dialogue', in informal, spontaneous, face-to-face conversations of Greek Cypriots in their twenties who employ codeswitching between Cypriot Greek (speakers' native language, henceforth CG) and English (speakers' first foreign language). Six conversation excerpts are analysed, purposefully chosen from a collection of naturally-occurring conversations recorded from 2008 to 2011, being the only ones to have at least one occurrence of constructed dialogue in a language (English) other than the main-language-of-interaction (CG).

Using the method of conversation analysis for bilingual speech (Auer 1998) and drawing from the work of Bakhtin (1981, 1986), Labov (1972) and Tannen (2007), I examine: (a) Constructed dialogue's **form** i.e., the language the quote is expressed in, presence/absence of *verbum dicendi*, if language choice corresponds to the language of the original conversation and whether occurrences of constructed dialogue refer to something said in a previous conversation or they are 'impossible quotes' (Mayes 1990)/'enactments' (Holt 2007). (b) The **locus** of constructed dialogue in the sequences of conversational turns and whether language choice is affected by/affects what comes before and after constructed dialogue (Auer 1998). (c) The **discourse function** of constructed dialogue and whether there are specific discourse functions assumed by each language.

There are 47 instances of constructed dialogue whose vast majority (85%) are introduced by a *verbum dicendi*. 49% of the quotes are in CG, followed by mixed quotes (34%) and English ones (17%). The language of the original conversation is not always 'respected'; this lends support to the claim that quotations are not faithful representations of what was previously said but constructed forms influenced by the context of the current conversation. In the words of Bakhtin, speakers "assimilate, rework and reaccentuate" the words of others (1986:89). Some instances of constructed dialogue are clearly 'impossible quotes' (Mayes 1990)/'enactments' (Holt 2007); that is hypothetical quotes that could have been said or instances of inner speech. The locus of constructed dialogue in the conversation is important in uncovering the discourse function it plays and language choice is affected by/affects what comes before and after constructed dialogue. Finally, constructed dialogue serves several discourse functions, such as *internal evaluation* (Labov 1972), *making fun*, and *showing the*

listener's involvement in the story (Tannen 2007). On a general level, specific discourse functions are not exclusively assumed by each language. Yet, in *particular* pieces of conversations, each language assumes different discursive functions and both creatively serve the conversational goals of the speaker.

References

Auer, Peter. 1998. Bilingual Conversation revisited. In Peter Auer (ed.) *Code-switching in conversation. Language interaction and identity*. London: Routledge, 1-24.

Bakhtin, Mikhail, M. 1981. *The dialogic imagination: four essays* (Michael Holquist (ed.)). Austin, TX: University of Texas Press.

Bakhtin, Mikhail, M. 1986. *Speech Genres and Other Late Essays*. University of Texas Press, Austin.

Holt, Elizabeth. 2007. "I'm eyeing your chop up": Reporting and enacting. In Elizabeth Holt and Rebecca Clift (eds.) *Reporting talk: Reported speech in interaction*. Cambridge: Cambridge University Press, 47-80.

Labov, William. 1972. *Language in the Inner City: Studies in the Black English Vernacular*. Philadelphia: University of Pennsylvania Press.

Mayes, Patricia, 1990. Quotation in Spoken English. *International Journal Studies in Language*. 14:2, 325-363.

Tannen, Deborah. 2007. *Talking voices: Repetition, dialogue and imagery in conversational discourse*. Cambridge: Cambridge University Press.

When nouns meet themselves

Maximilian Frankowsky

(University of Bonn)

Nominal compounding is a process that is widespread across the languages of the world and may therefore be considered a protogrammatical phenomenon (Jackendoff 2009: 175). In most cases nouns combine with other nouns. A special case of nominal compounding is at the same time a subtype of total reduplication: a compound consisting of two identical constituents (ICC) to express an entirely new or vaguely related meaning, e.g. Amele *bagac~bagac* 'leaf+leaf=thin', to modify the base semantically, e.g. Mandarin Chinese 車車 *che1~che1* 'car+car=little car', or to express grammatical features like number, e.g. Indonesian *pulau~pulau* 'island+island=islands'. Although German is well known for its extensive use of compounding, ICCs are considered non-existent. This fits the assumption that reduplication processes in general are rather rare in Indo-European languages (Štekauer et al. 2012; Dryer et al. (eds.) 2013; Rubino 2013) with German as an extraordinary reduplication avoider (Stolz et al. 2011).

However, recent research has pointed out that contrary to earlier beliefs ICCs in fact do exist in German. These ICCs denote complex concepts that inherit an abstract meaning of prototypicality, e.g. *Salat-Salat* 'salad-salad', referring to a prototypical, unexceptional kind of salad (Kentner 2013; Freywald 2015). This can be a more efficient and more effective way to express prototypicality than using paraphrases. ICCs behave differently from ordinary compounds in that there are no linking elements involved and they are limited to two constituents. But the biggest difference between ICCs and ordinary compounds is the semantic relation of their constituents. Ordinary German compounds exhibit various semantic relations like HAVE, FOR or CAUSE (e.g., Levi 1978). ICCs, however, do

not have such a variety of semantic relations because IDENTITY seems to be the only possible relation between both constituents. This suggests that the specific semantic meaning of ICCs must be derived from an abstract prototypical constructional meaning, which in turn means that ICCs are context-dependent and need to be pragmatically enriched. In this regard, German ICCs are completely different from the examples of nominal reduplication mentioned above.

This raises the question whether German ICCs are binominal naming constructions or simply ad hoc formations without a naming function. It has often been assumed that German ICCs are unlexicalizable (Hohenhaus 1998, 2004). Although there is evidence against a special context-dependency (Finkbeiner 2014), it seems common sense that ICCs are not naming constructions and do not enter the lexicon. This view is challenged in the current study. I argue that frequent ICCs (e.g., *Film-Film* 'movie-movie') do undergo lexicalization and can be identified as lexemes.

My claim is based on data from a corpus-analysis conducted on DECOW14 (Schäfer 2015) and deWaC (Baroni et al. 2009), indicating that German ICCs differ in terms of their lexical status. On the basis of a questionnaire study replicating Finkbeiner's approach (Finkbeiner 2014) I will show that in German, ICCs like *Winter-Winter* 'winter-winter' can be understood in isolation. This way, I will argue that the need for pragmatic enrichment decreases as ICCs are lexicalized and hence reduplication is a full-fledged word formation process of German.

References

Baroni, Marco, Silvia Bernardini, Adriano Ferraresi & Eros Zanchetta. 2009. The WaCky wide Web: A collection of very large linguistically processed Web-crawled corpora. *Language Resources and Evaluation* 43(3). 209–226.

Dryer, Matthew S. & Martin Haspelmath (eds.). 2013. *The World Atlas of Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. Available online at http://wals.info, accessed on 2017-01-14.

Finkbeiner, Rita. 2014. Identical constituent compounds in German. *Word Structure* 7(2). 182–213.

Freywald, Ulrike. 2015. Total Reduplication as a productive process in German. *Studies in Language* 39(4). 905–945.

Hohenhaus, Peter. 1998. Non-lexicalizability – as a characteristic feature of nonce-formations in English and German. *Lexicology* 4, 237–280.

Hohenhaus, Peter. 2004. Identical constituent compounding – a corpus-based study. *Folia Linguistica* 38. 297–331.

Jackendoff, Ray. 2009. Compounding in the Parallel Architecture and Conceptual Semantics. In Rochelle Lieber & Pavol Štekauer (eds.), *The Oxford handbook of compounding*, 105–128. Oxford & New York: Oxford University Press.

Kentner, Gerrit 2013. *On the emergence of reduplication in German morphophonology*. Manuscript, Institut für Linguistik, Goethe-Universität Frankfurt am Main. Available online at http://ling.auf.net/lingbuzz/001810, accessed on 2017-01-14.

Levi, Judith N. 1978. *The Syntax and Semantics of Complex Nominals*. New York: Academic Press.

Lieber, Rochelle & Pavol Štekauer (eds.). 2009. *The Oxford handbook of compounding*. Oxford & New York: Oxford University Press.

Rubino, Carl. 2013. Reduplication. In Matthew S. Dryer & Martin Haspelmath (eds.), *The World Atlas of Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. Available online at http://wals.info/chapter/27, accessed on 2017-01-14.

Schäfer. Roland. 2015. Processing and querying large web corpora with the COW14 architecture. In *Proceedings of Challenges in the Management of Large Corpora (CMLC-3)*. Talk at Challenges in the Management of Large Corpora (CMLC-3) on July 20, 2015 in Lancaster.

Štekauer, Pavol, Salvador Valera & Lívia Körtvélyessy. 2012. *Word-formation in the world's languages: a typological survey*. Cambridge University Press.

Stolz, Thomas, Cornelia Stroh Aina Urdze. 2011. *Total Reduplication. The Areal Linguistics of a Potential Universal*. Berlin.

Extra Arguments in English: A multi-dimensional perspective

Katherine Fraser

(University of the Basque Country, UPV/EHU)

Introduction This talk investigates a special class of English change-of-state verbs which exhibit unexpected linguistic behaviour. The construction is called "extra argument" (ExArg) (Hole, 2006) because the surface subject is not the theme, as typically for unaccusatives, nor is it an external argument. Instead, the subject has a non-canonical thematic role, which would normally be a semantic adjunct: the location of the event, boldfaced in (1). Additionally, in an alternation (LocPP), where the location is in a PP and the theme is the subject (2a), not-at-issue meaning is apparent: LocPP has a non-defeasible implication that the maximum change-of-state (COS) has been reached, whereas ExArg's COS can be only partial (2b) . In this talk, I argue that both alternations have a localisation entailment and that they differ in their not-at-issue meaning: LocPP is a conventional implicature (CI), conveying 'maximality', and ExArg is not.

(1)   **The ship** (#intentionally) tore a sail (#with its mast)

(2)   a. LocPP   A sail tore **on the ship** #but the damage was minor/the sail is still usable.

        b. ExArg   **The ship** tore a sail but the damage was minor/the sail is still usable

Data Example (1) shows how the ExArg subject is an inanimate without intention; *the ship* is rather the location. Example (2) displays an important difference between alternations: in the LocPP sentence (2a), it is infelicitous to directly deny the CI's 'maximality' meaning, an infelicity absent from ExArg (2b). Of course, the lexical semantics of the eligible verbs can play a role. For example, the nature of a verb like *burst* blocks a partial COS reading. The localisation entailment, however, remains constant.

Previous Work Rohdenburg (1974) describes Germanic "secondary subjects", and Hole (2006) examines ExArg cross-linguistically, including the localisation entailment, but there lacks a multi-dimensional analysis accounting for the behaviour exhibited in (2). This study tackles that gap and, more generally, contributes to the discussion on non-canonical subjects.

Analysis The localisation on/at the surface subject is an at-issue entailment, as shown in (3); at-issue material can be directly targeted by reinforcement (3a) (Potts, 2005), but cannot project above an entailment-cancelling operator like the modal in (3b) (Simons et al., 2010). CIs, like entailments, are non-reinforceable/non-defeasible (2a). However, CIs, being not-at-issue, do project; cf. (4). Contrary to presuppositions, CIs are anti-backgrounding (5).

(3)　　a.　The ship tore a sail **#on the ship**.　　　　　　　　reinforcement

　　　　b. The ship **might have** torn a sail.　　　　　　　　projection

　　　　not entailed: 'a sail tore on the ship'

(4)　　a. A sail tore on the ship implied: 'maximal damage/unusable'

　　　　b. A sail **might have** torn on the ship.　　　　projection

　　　　　not entailed: 'a sail tore on the ship'　　implied: 'maximal damage/unusable'

(5)　　A sail was completely damaged. #The sail tore on the ship.　　backgrounding

To account for both at-issue and not-at-issue meanings, the VP is analysed with two dimensions, following Potts (2005). The not-at-issue meaning of LocPP stems from the syntactic difference, not from context, allowing a compositional analysis. The question of how a location appears as ExArg's subject is taken into consideration in the full-fledged analysis.

References

Hole, D. (2006). Extra argumentality – affectees, landmarks and voice. *Linguistics*, 44(2):383–424.

Potts, C. (2005). *The Logic of Conventional Implicatures*. OUP.

Rohdenburg, G. (1974). *Sekundäre Subjektivierungen im Englischen und Deutschen: Vergleichende Untersuchungen zur Verb- und Adjektivsyntax*, volume 8 of PAKS-Arbeitsbericht. Cornelsen-Velhagen und Klasing, Bielefeld.

Simons, M., Tonhauser, J., Beaver, D., and Roberts, C. (2010). What projects and why. In *Proceedings of SALT 20*, pages 309–327.

A New Perspective on Gapped and Gapless Relatives

Kazuhiko Fukushima

(Kansai Gaidai University)

<too long abstract>

A corpus-based analysis of Post-Auxiliary Ellipsis voice mismatches in the recent history of English

Evelyn Gandón-Chapela

(University of Cantabria / University of Vigo)

This paper analyses Post-Auxiliary Ellipsis (PAE; Sag 1976, Warner 1993, Miller 2011, Miller and Pullum 2014) voice mismatches between the antecedent clause(s) and the ellipsis site(s) in Late Modern English, using the Penn Parsed Corpus of Modern British English (PPCMBE) (1700–1914). The term 'PAE' covers those cases in which a Verb Phrase (VP), Prepositional Phrase (PP), Noun Phrase (NP), Adjective Phrase (AP) or Adverbial Phrase (AdP) is omitted after one of the following licensors (those elements that permit the occurrence of ellipsis): modal auxiliaries, auxiliaries *be*, *have*

and *do*, and infinitival marker *to* (the latter believed to be a defective non-finite auxiliary verb; see Miller and Pullum 2014). This study focuses on two subtypes of PAE, namely VP ellipsis (VPE henceforth) and Pseudogapping (PG henceforth), illustrated below:

(1) we *engaged* as close as any Ship could be engaged. HOLMES-TRIAL-1749,59.1054 (VPE: antecedent active, ellipsis site passive).

(2) when once things *are got* into the state I fear they will get. GEORGE-1763,200.283 (VPE: antecedent passive, ellipsis site active).

(3) and dip it in the spawn of Frogs, *beaten* as you would beat the whites of eggs. ALBIN-1736,4.75. (PG: antecedent passive, ellipsis site active).

PAE voice mismatches have also been studied empirically in very few works focused on Present-Day English such as Hardt and Rambow (2001), Bos and Spenader (2011) and Miller (2014). In this paper, I extend these studies by bringing new data from an earlier period of the language. The results of this analysis show that voice mismatches were possible in PG and VPE in Late Modern English with low frequencies (1.16% and 0.68% of the examples of PAE, respectively). This fact serves as counterevidence for Merchant's (2008, 2013) claim about the impossibility of finding voice mismatches in PG and confirms Miller's (2014) corpus-based findings for Present-Day English. Since neither Hardt and Rambow (2001) nor Bos and Spenader (2011) found any voice mismatches in their corpus-based studies of VPE in Present-Day English, I hypothesise that voice mismatches in VPE, which have been gradually disfavoured in Present-Day English, were more likely to occur in Late Modern English. Finally, whereas Kehler's (2000, 2002) theory regarding voice mismatches (there must exist an asymmetric kind of discourse relation between the antecedent and the ellipsis site – temporal succession, concessives, etc.– for voice mismatches to be judged acceptable) has not been confirmed by my data, the validity of Kertz's (2008, 2013) theory (voice mismatches are acceptable as long as there is topic continuity) remains intact.

References

Bos, Johan and Jennifer Spenader. 2011. An annotated corpus for the analysis of VP ellipsis. *Language Resources and Evaluation* 45(4). 463–494.

Hardt, Daniel and Owen Rambow. 2001. Generation of VP ellipsis: A corpus-based approach. In *Proceedings of the 39th Annual Meeting on Association for Computational Linguistics*, *Toulouse, France, 9-11 July 2001*. 290–297.

Kehler, Andrew. 2000. Coherence and the resolution of ellipsis. *Linguistics and Philosophy* 23. 533–575.

Kehler, Andrew. 2002. *Coherence, reference and the theory of grammar*. Stanford: CSLI Publications.

Kertz, Laura. 2008. Focus structure and acceptability in verb phrase ellipsis. In Natasha Abner & Jason Bishop (eds.), *Proceedings of the 27th West Coast Conference on Formal Linguistics*. Cascadilla Proceedings Project.

Kertz, Laura. 2013. Verb phrase ellipsis: The view from information structure. *Language* 89. 390–428.

Merchant, Jason. 2008. An asymmetry in voice mismatches in VP-ellipsis and pseudogapping. *Linguistic Inquiry* 39(1). 169–179.

Merchant, Jason. 2013. Voice and ellipsis. *Linguistic Inquiry* 44(1). 77–108.

Miller, Philip. 2011. The choice between verbal anaphors in discourse. In Iris Hendrickx, Sobha Lalitha Devi, António Branco & Ruslan Mitkov (eds.), *Anaphora Processing and Applications: 8th Discourse Anaphora and Anaphor Resolution Colloquium (DAARC 2011)*, *Lecture Notes in Artificial Intelligence*, vol. 7099, 82–95. Berlin: Springer.

Miller, Philip. 2014. A corpus study of pseudogapping and its theoretical consequences. In Christopher Piñón (ed.), *Empirical issues in syntax and semantics* 10. 73–90. <http://www.cssp.cnrs.fr/eiss10/>

Miller, Philip and Geoffrey K. Pullum. 2014. Exophoric VP ellipsis. In Philip Hofmeister & Elisabeth Norcliffe (eds.), *The core and the periphery: Data-Driven perspectives on syntax inspired by Ivan A. Sag*, 5–32. Stanford, CA: CSLI Publications.

Sag, Ivan A. 1976. *Deletion and logical form*. Cambridge, MA: MIT dissertation.

Warner, Anthony. 1993. *English auxiliaries: Structure and history*. Cambridge: Cambridge University Press.

Cohesion and Pronoun Resolution in Persian Referring Expressions

Maryam S. Ghiasian & Zeinab Haghdust

(Payame Noor University; Payame Noor University; & Farhangiyan University)

This paper investigates anaphoric reference in Persian, with particular concentration on the use and interpretation of third person personal pronouns to realize anaphoric relationships between noun phrases. This paper is inspired by the central idea of Centering theory (Grosz et al. 1995), namely, that each utterance in a discourse evokes certain discourse entities (Webber 1978; Prince 1981) which comprise the list of forward-looking centers (the Cf-list), in Centering terms, and which are ranked according to their salience. The task was self-paced word-by-word reading with a moving window display using MATLAB operating system developed by researchers. Each trial began with a series of dashes marking the length and position of the words in the sentences, printed approximately a third of the way down the screen. Participants pressed the spacebar to reveal each word of the sentence. The amount of time the participant spent reading each word was recorded as the time between key-presses. After the final word of each item, a question appeared which asked about information contained in the sentence. Participants pressed one of two keys to respond "yes" or "no." No feedback was given for correct or incorrect responses. Participants were asked to read sentences at a natural rate and to be sure that they understood what they read. Before the main experiment, a short list of practice items and questions was presented in order to familiarize the participant with the task. A session averaged 30 minutes. In the present study, the confidence level is taken as 95%. In other words, the coefficient of error is five percent in the calculation of predicted outcomes. Before determining the appropriate statistical methods for the analysis, the hypotheses of normality of the observations were tested using the Kolmogorov–Smirnov test. Contrary to expectation, the observations did not follow a normal distribution; Because of the reason given, non-parametric Spearman correlation test and Friedman ranking method were used to evaluate the assumptions. The results showed that under a resemblance discourse relation, pronouns with an antecedent in parallel object position were read faster than pronouns with an antecedent in non-parallel object position. In the condition indicated, under the cause-effect discourse relations in our items, pronouns with an antecedent in non-parallel subject position were read faster than pronouns with an antecedent in parallel subject position. This is predicted by causal-inference-based accounts as well as Kehler's (2002) account, but not predicted by the Parallel Preference account. Centering Theory does predict this preference, but not as a part of a causal inference process. To summarize, the only account that makes the correct predictions for all conditions is Kehler's (2002). It predicts different preferences in pronoun resolution, depending on the coherence relation between the clauses containing the pronoun and the antecedent.

References

Brennan, S. E., Friedman, M. W. &Pollar, C. J. (1987).A Centering approach to pronouns.In Proceedings of the 25th Meeting of the Association for Computational Linguistics, 155-162. Stanford, CA.

Cramazza, A., Grober, E., Garvey, C & Yates, J. (1977).Comprehension of anaphoric pronouns. Journal of Verbal Learning and Verbal Behavior, 16, 601-609.

Devi, S. L., Branco, A., Mitkov, R. (2009). Anaphoric Processing and Applications. Berlin: Springer.

Ehrlich, K. (1980). Comprehension of pronouns.Quarterly Journal of Experimental Psychology, 32, 247- 255.

Grosz, B. J., Joshi, A. K. & Weinstein, S. (1995). Centering: A framework for modeling the local coherence of discourse. Computational Lingustics, 21(2), 203-225.

Hobbs, J. R. (1979). Coherence and Coreference. Cognitive Science, 3, 67-90.

Hsiu-chuan, L. (2000). The noun phrase accessibility hierarchy revisited: A view from ergative languages. Working Papers in Linguistics, 31, 121-142. Department of Linguistics, University of Hawai'i at Ma-noa.

Kehler, A. (2002). Coherence, reference, and the theory of grammar. Stanford: CSLI publications.

Kidd, E., Brandt, S., Lieven, E., &Tomasello, M. (2007). Object relatives made easy: A crosslinguistic comparison of the constraints influencing young children's processing of relative clauses. Language and Cognitive Processes, 22, 860 – 897.

KılıÇaslan, Y., SerdarGüner, E., Yıldırım, S. (2009). Learning-based pronoun resolution for Turkish with a comparative evaluation. Computer Speech and Language, 23, 311–331.

Prasad, R., Strube, M. (2000). Discourse salience and pronoun resolution in Hindi. In Penn Working Papers in Linguistics, volume 6, Philadelphia: University of Pennsylvania.

Prince, Ellen F. 1981. Toward a taxonomy of given-new information. In Radical pragmatics, ed. P. Cole, 223–255. New York, N.Y.: Academic Press

Tetreault, J. (1999). Analysis of Syntax-Based Pronoun Resolution Methods.ACL'99.

Wolf, F., Gibson, E. (2004). Discourse coherence and pronoun resolution. Language and Cognitive Processes, 19 (6), 665-675.

Webber, Bonnie Lynn. 1978. A formal approach to discourse anaphora. Doctoral Dissertation, Harvard University.

On the historical development of the Italian focus particle *almeno* "at least"

Anna Giacalone

(University of Pavia)

The aim of this paper is to shed light on the historical development of the Italian focus particle *almeno* and to account for its wide polysemy, a topic as yet scarcely considered in the literature.

The historical investigation will be preceded by a synchronic description of Modern Italian uses on the assumption that synchronic variation is both the result of historical change and a condition for further changes.

Almeno in Modern Italian is a scalar focus particle that induces an ordering relation for the alternatives under consideration (König 1991, van der Auwera and Gast 2011, Gast 2013). There are, however, other uses that do not show a clear scalar meaning: the use in optative clauses in which

almeno attenuates the strength of the wish, and a number of pragmatic modal uses expressing subjective or intersubjective meanings.

The diachronic investigation (based on the OVI corpus, the LIZ corpus and the *Bilioteca Italiana* documents), has prove the long history of *almeno*: beyond uses with quantifying expressions (*almeno mille battaglieri* "at least thousand soldiers" 14th cent.), *almeno* is well attested as part of a bi-clausal construction to indicate a minimal acceptable level in front of a negated maximal alternative (*se non possono avere co meco loro gloria, abbialla almeno con un altro*. "if they can not have their glory with me, let them have it at least with somebody else" *Fatti di Cesare*, 13th century). Thirdly, *almeno* appears as early as the 13th century in optative clauses with the imperfect subjunctive: *sapesse almeno volar* "if only I knew fly…", *Mare amoroso*. By contrast, pragmatic subjective and intersubjective uses (of the type *almeno secondo me* "in my view at least") are only scarcely documented in older texts, but have been steadily gaining ground during the 20th century.

The paper will discuss the relationships among these different uses and their possible development along a grammaticalization path. Not surprisingly, pragmatic subjective uses will be shown to develop out of more objective ones.

The results support generalizations on regularities in semantic change (Traugott and Dasher 2002) by showing how *almeno* is developing toward a marker of the speaker's perspective, though still preserving its polysemy.

References

LIZ *Letteratura Italiana Zanichelli*,4th edn, Bologna, Zanichelli, 2001

OVI (*Opera del Vocabolario Italiano*) (http://www.ovi.cnr.it)

DIACORIS, a corpus of written Italian from 1861 to 2001
      (http://corpora.dslo.unibo.it/diaCORIShttp://corpora.dslo.unibo.it/diaCORIS)

Biblioteca Italiana http://www.bibliotecaitaliana.it

Gast, Volker. 2013. *At least, wenigstens* and company: Negated universal quantification and the typology of focus quantifiers , G.Tsoulas, S. Harlow & K.H. Gil (eds.), *Strategies of Quantification*, 101-122. Oxford, OUP

König, Ekkehard, 1991. *The meaning of focus particles. A Comparative Perspective*. London and New York, Routledge

Traugott Elisabeth C. & Richard B. Dasher. 2002. *Regularity in Sematic Change*. Cambridge: Cambridge University Press

van der Auwera Johan and Volker Gast. 2011. Scalar additive operators in the languages of Europe. *Language* 87.1, 2-54

Complementizers and coreference in Modern Eastern Armenian

Alessandra Giorgi & Sona Haroutyunian
(Ca' Foscari University of Venice)

Introduction

In this work we analyze the distribution of complementizers in Modern Eastern Armenian and show that they exhibit some interesting properties with respect to the syntax-pragmatics interface. Our goal is on the one hand to better describe the syntax of Armenian, and on the other to highlight some new properties of the left periphery of the clause in the generative framework.

The issue
In Modern Eastern Armenian there are two complementizers introducing complement clauses: *wor* an *t'e*:

(1)   Aran karcum ē, **wor** yerkirə k'aṙakusi ē
        Ara think.pres.ptcp aux.3sg that earth.art square aux.3sg
        'Ara thinks that the earth is square'
(2)   Aran karcum ē, **t'e** yerkire k'aṙakusi ē
        Ara think.pres.ptcp aux.3sg that earth.art square aux.3sg
        'Ara thinks that the earth is square'

In these examples, they both seem to correspond to English *that*. However, the clauses introduced by *t'e*, as the one in (2), have a slightly different interpretation with respect to those with *wor*. In particular, they have a *mirative* interpretation, expressing a feeling – doubt, surprise, regret etc. – of the speaker toward the embedded content.

Interestingly, when *t'e* introduces indirect reports with verbs of saying, it gives rise to a peculiar pattern concerning the interpretation of embedded pronouns and indexicals in general. Consider the following examples:

(3)   Aran asac' **wor** hognac em
        Ara.art say.aor.3sg that tired aux.1sg
        'Ara said that (I) am tired (**I, *Ara**)'
(4)   Aran asac' **wor yes** hognac em
        Ara.art say.aor.3sg that I tired aux.1sg
        'Ara said that I am tired (**I, *Ara**)'
(5)   Aran asac' **t'e** hognac em
        Ara.art say.aor.3sg that tired aux.1sg
        Ara said that (I) am tired (***I, Ara**)
(6)   Aran asac' **t'e yes** hognac em
        Ara.art say.aor.3sg that I tired aux.1sg
        Ara said that I am tired (***?Ara**)

In examples (3) and (4), the complementizer is *wor* and the distribution of the embedded pronouns is the same as in English: the first person pronoun identifies the utterer of the sentence. Armenian is a null subject language and there is no difference between (4), where the first person pronoun is overtly realized and (3), where it is null. In examples (5) and (6), the complement clause is introduced by *t'e*. In (5) the interpretation of the null pronoun is analogous to the one obtained in quotations, i.e. the first person refers to the main subject. When the pronoun is overtly realized, as in (6), it refers again to the utterer. This interpretation obtains for all the indexicals, such as for instance temporal and spatial adverbs.

The proposal
Following Giorgi (2010), we will argue in favor of the following idea: the highest complementizer in the left periphery encodes the utterer's spatial and temporal coordinates. This is the case with *wor*. The complementizer *t'e*, on the other hand, occupies a lower position, which under verbs of *thinking* expresses a mirative value, whereas under verbs of saying permits to encode the spatial and temporal

coordinates of superordinate subject, which in a sense replace those of the utterer. A similar pattern is found in other languages as well, as for instance in Hindi (cf. Zanon 2012).

We will also briefly discuss the distribution of *t'e* in *if-clauses.*

References

Giorgi A. , 2010, *About the Speaker*, OUP.
Zanon, J. , *Subordination in Hindi*, MA diss. Ca' Foscari University of Venice

Constructions with multiple adjectives in Old English

Maciej Grabski

This paper discusses four types of Old English (OE) constructions involving adjectives and conjunctions. In (1) and (2), one adjective precedes the head noun and the other follows it, being itself preceded by a conjunction; depending on the absence or presence of a demonstrative, both adjectives inflect strong or weak respectively:

(1)*hluttor* [STR]   *wæter*   *&*   *wered* [STR]
    clear   water   and   sweet
    (cocathom1, ÆCHom_I,_34:469.114.6769

(2)*þæs*   *swetan* [WK] *wætres* *&*   *þæs ferscan* [WK]
    that   sweet   water   and   that fresh
    (coalex,Alex:16.12.162)

Alternatively, both adjectives, separated by a conjunction, precede the noun, their inflection again informed by lack of a demonstrative or presence thereof, as shown in (3) and (4):

(3)*stulor* [STR] *and digele* [STR] *swica*
furtive   and   secret   deceiver
(cocathom2,+ACHom_II,_28:228.215.5075)

(4)*se*   *Cristena* [WK] *and se*   *goda* [WK] *Theodosius*
that Christian   and that   good   Theodosius
(cosevensl,LS_34_[SevenSleepers]:375.278)

These constructions are discussed in Haumann (2003), Pysz (2009), and Fischer (2012) (all summarized in Ringe and Taylor (2014: 455)). However, the authors are generally in disagreement over the status and function of the adjectives in said constructions and do not discuss their mutual relations at length.

This paper is a comprehensive corpus study, based on the York-Toronto-Helsinki Parsed Corpus of Old English Prose (YCOE, Taylor et al. 2003), and focuses on the constructions exemplified in (1)-(4), henceforth referred to as the postposed [-]/[+determiner] ((1) and (2)) and preposed [-]/[+determiner] ((3) and (4)), all of which are considered separately for translations and non-translations, to control for any potential Latin influence. The aim is to establish the relations between the four types in question and set them against the accounts of Haumann (2003), Pysz (2009), and

especially Fischer (2012), who proposes an iconicity-based explanation for the variable position of adjectives in the constructions listed in (1)-(4).

The following study questions were formulated:

1) What is the relation between the postposed [-det] and postposed [+det]? Are they different regarding the information structure (iconicity), style (emphasis), or identity of reference (strict/sloppy)? (cf. Fischer 2012)

2) What is the difference between the preposed [-det] and postposed [-det]? Are they different iconically? (cf. Fischer 2012)

3) What is the difference between the preposed [+det] and postposed [+det]? Are they different stylistically? (cf. Fischer 2012)

4) Is there evidence supporting a uniform underlying structure for all four types? (cf. Haumann 2003, Pysz 2009, Sielanko 1994)

5) Does Latin influence the choices of OE writers/translators regarding the constructions analyzed? Are there quantitative and/or qualitative differences with respect to these constructions in translations vs. non-translations?

The quantitative and qualitative analyses of translations and non-translations suggest that the constructions studied should be divided into preposed and postposed ones, rather than those involving a determiner or otherwise; this was concluded on grounds of frequencies – postposed constructions are visibly more frequent and more firmly rooted in the language – and scope of application – postposed constructions are more versatile. These findings go against Fischer's (2012) idea of iconic and emphatic motivation for postposing adjectives in *and*-adjective constructions and support Mitchell's (1985) general observation that OE by nature had leanings toward the splitting of groups.

References

Fischer, Olga. 2012. "The status of the postponed 'and-adjective'construction in Old English: Attributive or predicative?" in David Denison, Ricardo Bermúdez-Otero, Chris McCully, Emma Moore (eds), *Analysing Older English* (Studies in English Language). Cambridge: Cambridge University Press.

Haumann, Dagmar. 2003. The postnominal 'and adjective' construction in Old English. *English Language and Linguistics* 7(1). 57-83.

Mitchell, Bruce. 1985. *Old English Syntax*. Oxford: Clarendon Press.

Ringe, Don and Ann Taylor. 2014. *The Development of Old English*. Oxford: Oxford University Press.

Sielanko, Elżbieta. 1994. Split coordinated structures in Late Old English. *Studia Anglica Posnaniensia* 29. 57-72.

Taylor, Ann, Anthony Warner, Susan Pintzuk, and Frank Beths. 2003. The York-Toronto-Helsinki Parsed Corpus of Old English Prose (YCOE). Department of Linguistics, University of York. Oxford Text Archive. (Available online at http://www-users.york.ac.uk/~lang22/YcoeHome1.htm)

Dare and the 'degrammaticalization' debate – reappraising the evidence

Sune Gregersen

(University of Amsterdam)

In the literature on grammatical change, it is generally agreed that lexical items may readily develop into grammatical ones, while changes in the other direction are considered exceptional (cf. e.g. Narrog & Heine 2011). The development of the verb *dare* in the history of English has been interpreted as one such exception, i.e. as an instance of 'degrammaticalization', a move from more to less grammatical status (Beths 1999; Schlüter 2010; cf. also Nagle 1989: 100f; Warner 1993: 202f).

A number of facts have been presented as evidence for the 'degrammaticalization' analysis. For instance, Beths (1999: 1081f; cf. also Los 2015: 112) argues that *dare* in Old English was more semantically 'bleached' than in later stages of the language because it could co-occur with other verbs expressing courage or audacity, such as *gedyrstlæcan* in (1):

(1)   *Hwa   dear   nu   gedyrstlæcan, þæt   he   derige þam   folce*
      who   dare.3s.ind   now   presume.inf   comp   he   harm.3s.sbjv that.dat
      people.dat   'Who now dares to be so presumptuous that he will harm those people?'
      ÆHomM 14, 306 (DOE Web Corpus)

Further, the development of regular morphology (e.g. the weak past tense form *dared* instead of the older 'preterite-present' form *durst*) in Early Modern English has been analyzed as a change to a less auxiliarized status (cf. Schlüter 2010: 297ff). The same goes for another innovation, the transitive pattern exemplified in (2), which is first attested in Early Modern English (Warner 1993: 202; Beths 1999: 1095f):

(2)   What wisedome is this in you to dare your betters?
      1589 *Hay any Worke for Cooper*, 37 (OED, s.v. *dare*, v.[1], 5.a.)

This paper suggests that these facts do not amount to evidence for 'degrammaticalization'. Specifically, it is argued a) that the use of *dare* with other 'courage' verbs in Old English is not an indication of semantic 'bleaching'; b) that the change from preterite-present to weak morphology does not indicate a change in grammatical status; and c) that the innovative transitive pattern may actually be the result of conflation with another verb (OED, s.v. *dare* v.[2]), which was used transitively with the meaning 'daze, daunt', as in (3):

(3)   Let his Grace go forward, And dare vs with his Cap, like Larkes.
      1623 *Henry VIII*, III.ii.283 (OED, s.v. *dare* v.[2], 5.)

The pattern in (2) above would then be an example of a multiple source construction in the sense of Van de Velde, De Smet & Ghesquière (2013).
Data will be drawn from the *Dictionary of Old English Web Corpus*, the *Early English Books Online Corpus*, and the major dictionaries.

References

Beths, Frank. 1999. The history of *dare* and the status of unidirectionality. *Linguistics* 37, 1069–1110.
Dictionary of Old English Web Corpus, compiled by Antonette diPaolo Healey with John Price Wilkin and Xin Xiang. Toronto: Dictionary of Old English Project 2009.
      http://tapor.library.utoronto.ca/doecorpus/
Early English Books Online Corpus 1.0 (EEBOCorp1.0), compiled by Peter Petré. 2013.
Los, Bettelou. 2015. *A Historical Syntax of English*. Edinburgh: Edinburgh University Press.

Nagle, Stephen J. 1989. Quasi-modals, marginal modals, and the diachrony of the English modal auxiliaries. *Folia Linguistica Historica* 9(2), 93–104.

Narrog, Heiko & Bernd Heine. 2011. Introduction. In: Heiko Narrog & Bernd Heine (eds.), *The Oxford Handbook of Grammaticalization*, 1–16. Oxford: Oxford University Press.

OED = *Oxford English Dictionary*, online edn. Oxford: Oxford University Press 2017. http://www.oed.com

Schlüter, Julia. 2010. *To dare to or not do*: Is auxiliarization reversible? In: An Van linden, Jean-Christophe Verstraete & Kristin Davidse (eds.), *Formal evidence in grammaticalization research*, 289–326. Amsterdam: Benjamins.

Van de Velde, Freek, Hendrik De Smet & Lobke Ghesquière. On multiple source constructions in language change. *Studies in Language* 37(3), 473–89.

Warner, Anthony R. 1993. *English auxiliaries: Structure and history*. Cambridge: Cambridge University Press.

Overall borrowing and borrowing in basic vocabulary: A typological perspective on lexical change in Ancient Egyptian-Coptic

Eitan Grossman & Stéphane Polis
(Hebrew University of Jerusalem & F.R.S.-FNRS Liège)

The notion of 'basic vocabulary' is associated with the name of Morris Swadesh, who proposed a list of 200 (and later 100) items. These lists, widely used in historical and comparative linguistics, were based on intuition rather than on empirical research. More recently, however, the *Leipzig Loanword Typology Project* conducted a cross-linguistic survey of loanwords (Haspelmath & Tadmor 2009). One of the results is a 100-item list of basic vocabulary items — the 'Leipzig-Jakarta list of basic vocabulary.' This list is the product of four factors, computed for a database of 1440 meanings in 41 languages: borrowability, representation in the database, analyzability / simplicity, and age. As Tadmor (2009) states, this is the first list of basic vocabulary items based on extensive cross-linguistic comparison, and it constitutes a 'full-fledged basic vocabulary' that 'comprises the notions normally associated with this concept: stability (our age score), universality (our representation score) and simplicity (our analyzability score), as well as resistance to borrowing (our unborrowed score)' (2009: 68).

In this talk, we examine this list of 100 meanings in order to evaluate the influence of Greek (Indo-European) on the basic vocabulary of Coptic (Afroasiatic), which shows massive lexical borrowing. First, Coptic data were collected from Crum (1939) for four dialects: Sahidic, Bohairic, Fayyumic, and Akhmimic. Additionally, a questionnaire was submitted to specialists in order to detect Greek loanwords that also lexicalized these meanings. Furthermore, we used etymological dictionaries (Černý 1976; Westendorf 1977; Vycichl 1983) in order to attribute an age score (from 0 = Greek loanword to 4 = Old Egyptian) to the lexemes at two levels: the formal level (when is the word first attested in Ancient Egyptian) and the semantic level (when is the meaning attested in Coptic first associated with this word).

As a result of this study, we (1) evaluate the influence of Greek on the basic vocabulary of the main Coptic dialects, (2) describe the basic vocabulary of Coptic dialects independently and to observe how they differ from one another, (3) produce a first estimate of the rate of change in basic vocabularies over the course of Egyptian as a whole. Some of our main findings are as follows: 233 items lexicalize

the 100 meanings. Of these, nearly half are attested already in the oldest Egyptian texts; a major peak in lexical replacement is around 1500 BCE, a time of considerable political and cultural upheaval in Egypt. Rates of lexical change do not always correspond to neat semantic categories: while body part terms were generally replaced, semantic categories like perception show heterogeneity (e.g., the verb 'to hear' remained throughout the entire history of Egyptian, while the verb 'to see' was replaced several times; similarly, 'to come' remained stable, while 'to go' was replaced several times). All in all, very few of the meanings on the Leipzig-Jakarta list are lexicalized by loanwords in Coptic, and no meanings show complete replacement of a native word by a loanword.

This study has broader methodological implications. One is the clear distinction between (and possible independence of) overall lexical borrowing and borrowing of basic vocabulary: while Coptic borrowed an estimated 5000 lexical items (types), with a basic vocabulary borrowing score of 7.53, it is only a low-to-middle borrower in terms of basic vocabulary (cf. Fig. 1). The comparison of scores in overall borrowing vs. borrowing of basic vocabulary raises important questions about the types of socio-historical contact situations that lead to these different situations.

References

Černý, J. 1976. *Coptic Etymological Dictionary*, Cambridge, Cambridge University Press.

Crum, W.E. 1939. *A Coptic Dictionary Compiled With the Help of Many Scholars*, Oxford, Clarendon Press.

Haspelmath, M. & U. Tadmor (ed.). 2009. *Loanwords in the world's languages. A comparative handbook*, Berlin, De Gruyter Mouton.

Tadmor, U. 2009. Loanwards in the world's languages: Findings and results, in Haspelmath & Tadmor 2009, p. 55–75.

Vycichl, Werner. 1983. *Dictionnaire étymologique de la langue copte*, Leuven, Peeters.

Westendorf, W. 1965-1977. *Koptisches Handwörterbuch. Bearbeitet auf Grund des Koptischen Handwörterbuchs Wilhelm Spiegelbergs*, Heidelberg, Carl Winter–Universitätsverlag.

Ranking	Language	Score	Ranking	Language	Score
1	Saramaccan	35.17	22	Swahili	3.54
2	Gurindji	33.09	23	Zinacantán Tzotzil	3.2
3	Selice Romani	23.98	24	Mandarin Chinese	3
4	Thai	22.58	25	Q'eqchi'	2.75
5	Tarifiyt Berber	19.65	26	Yaqui	2.6
6	Kildin Saami	18.97	27	Mapudungun	2.54
7	Malagasy	18.69	28	Kanuri	2.4
8	Ceq Wong	17.04	29	Oroqen	2.37
9	White Hmong	15.62	30	Lower Sorbian	2.02
10	Indonesian	12.95	31	Iraqw	1.86
11	English	11.94	32	Kali'na	1.69
12	Japanese	10.76	33	Dutch	0.88
13	Archi	10.67	34	Old High German	0.24
14	Romanian	10.45	35	Iraqw	0.23
15	Takia	10.43	36	Kali'na	1.69
16	Vietnamese	.09	37	Dutch	0.88
17	Seychelles Creole	7.04	38	Old High German	0.24
18	Sakha	6.8	39	Iraqw	0.23
19	Imbabura Quechua	5.23	40	Hup	0
20	Hausa	4.87	41	Bezhta	0
21	Gawwada	4.61			

Fig 1 : Languages in the WOLD sample, ranked according to borrowing of basic vocabulary

Towards a reconstruction of negation patterns in simplex and complex (coverb) constructions in Tacana (Amazonian Bolivia)

Antoine Guillaume
(Laboratoire Dynamique du Langage, CNRS & University Lyon 2)

Tacana is a critically endangered and basically undescribed language from the small Takanan family of Amazonian Bolivia and Peru. On the basis of firsthand data collected between 2009 and 2013, I show that the language has two distinct predicate constructions. First, the language has a **simplex verb construction** [CONST 1] in which the lexical verb directly and obligatorily bears the inflectional morphology (1). (The inflectional affixes are underlined in the examples.)

(1)   Simplex predicate: affirmative clause
                *Jiawe   =da   id'eti   biwa=ja   **y**-abu-**ta-(a)ni**.*
                now   =top   sun   spider_monkey=erg   impfv-carry-A3-impfv.sit
                'Now the spider monkey is carrying the sun.'

   Negation of declarative main clauses containing such types of predicates is realized through an embracing construction involving two particles: the preverbal independent *aimue* and the postverbal enclitic *=mawe/=mue* (2).

(2)   Simplex predicate: negative clause
                ***Aimue** **e**-juseute-**ta=mawe**,   beni=ja.*
                neg   fut-fell-A3=neg wind=erg
                'The wind will not fell (the trees).'

Second, Tacana has a **complex 'coverb' construction** [CONST 2] in which a lexical verb (or another predicated element) does not directly bear the inflectional morphology. Here, the inflectional affixes are either carried by a generic auxiliary (light verb), which is specifically used for this (inflection-carrying) purpose (3a), or, more commonly, altogether absent (3b).

(3)   Complex predicate: affirmative clauses
        a.   With auxiliary and inflections
                *...   beu   **tutua**   =da   etse   **y-a**.   (Cf. **e-tutua**)*
                perf   spill   =top   1dl   fut-affect
                'We are going spill (the fish trap) (on the ground).'
        b.   Without auxiliary and inflections
*Beu   etseju   gringo=ja   beu,   cuarto=su   **nubi-ame**.   (Cf.   **nubi-ame-ta-ana**)*
perf   1dl.excl gringo=erg   perf   room=loc   enter-caus   enter-caus-A3-rec.past
'The gringo made us enter into the room.'

   Negation of declarative main clauses containing a 'coverb' construction is realized through a single preverbal negation marker which can be either the independent *aimue* (as in negation of simple predicate clauses) (4a) or the proclitic *mué=* (4b). Unlike in negation of clauses with a simplex verb construction, the lexical verb (or the inflection-carrying auxiliary, if expressed) is never followed by a second negation marker.

(4)   Complex predicate: negative clauses

a. with ***aimue***
    Biame ***aimue*** *=da* ***dia*** ***a-ta-ina***.
    But   neg   =top   eat   aux.tr-A3-past.hab
    'But (the jaguar) would not eat it.'

b. with ***mué=***
    Mué= *pa* ***teje-ti-yu*** ***a-ta-idha*** [*jida* *mesa* *ewane*] *beu*.
    neg=rep   find-go-reitr   aux.tr-A3-past   that   3sg.gen wife   perf
    'He didn't find his wife.'

The goal of the paper is to explore a number of hypotheses to account for the sources and historical development of the different Tacana negation markers and negation patterns in the two types of constructions. In particular, I will argue for a historical connection between *=mawe/=mue* [in CONST 1] with the privative negation marker *=mawe/=mue* (5) (reconstructible as *-ma* in proto-Takanan) and an evolutionary path similar to that postulated for the rise of some negation markers the languages the Arawak family (Michael 2014:285–287).

(5)   Privative denominalizer 'without N, N-less'
        Pero *pisa=* ***mue*** *=da* *ema*.
        but   gun=priv.neg   =top   1sg
        'I don't have a gun (lit. I am <u>without</u> a gun / gun-<u>less</u>).'

And I will propose a historical connection between ***aimue*** [in CONST 1 and CONST 2] and ***mué=*** [in CONST 2] with the stand-alone negation words ***aimawe*** (6a) and ***mawe*** (6b) and evolutionary paths possibly similar to that hypothesized for the raise of a negation marker in Sino-Russian (Veselinova 2016:155–156).

(6)   Stand-alone negative words
        a. ***Aimawe***! *Ema* *ebiasu* *tuche-da*.
            no   1sg   a_lot   strong-asf
            '<u>No</u> (he can't kill us)! (Because) I'm stronger (than him).'
        b. ***Mawe***! *Aimue* *=da* *ema* *e-puti=mawe*.
            no   neg   =top   1sg   fut-go=neg
            '<u>No</u>! I wo<u>n't</u> go!'

References

Michael, Lev. 2014. A typological and comparative perspective on negation in Arawak languages. In Lev Michael & Tania Granadillo (eds.), *Negation in Arawak languages*, 241–300. (Brill's Studies in the Indigenous Languages of the Americas 6). Leiden ; Boston: Brill.

Veselinova, Ljuba N. 2016. The negative existential cycle viewed through the lens of comparative data. In Elly van Gelderen (ed.), *Linguistik Aktuell/Linguistics Today*, vol. 227, 139–188. Amsterdam: John Benjamins Publishing Company.

Normal exclamations in German

Daniel Gutzmann & Katharina Turgay
(University of Cologne & University of Landau)

Defaults and "the ordinary" are rarely linguistically explicitly expressed, since they can be communicated by and inferred from process of pragmatic enrichment. Nevertheless, some exceptions to this rule can be attested. In this talk we focus on a particular construction in German which, at least superficially, seems to encode reference to the ordinary. What we have in mind are reduced, syntactic structures as in (1B), which we call normal exclamations (NEs).

(1)   A: Was   machst du   so   für Sport? B: **Normal – McFit**!
        what do   you PART for sport   normal   McFit
        'A: And what kind of sports do you do? B: McFit, of course!'

Interestingly, the construction is "not normal", thereby breaking Horn's division of pragmatic labor. In addition, (1B) triggers pragmatic inferences, which again shows how hard it is to encode just defaults. Syntactically, NEs are special because of their reduced from which is not derived by an ellipsis of a matrix embedding, like in (2).

(2)   (Es ist) **normal** (dass ich bei) **McFit** (Sport mache). $\neq$ (1B)
        (It is) normal (that   I   at)   McFit (sport do)

If at all, (1) is derived from a structure with a peripheral adverbial which comments upon the answer and is prosodically unintegrated, which contrasts with the canonical, integrated adverb *normalweise* 'usually, normally' as in (4).

(3)   Normal – Ich mache bei McFit Sport.
        normal   I   do   at McFit sport
        'Of course, I do spots at McFit.'
(4)   Normalerweise mache ich bei McFit Sport.
        Usually   do   I   at McFit sport
        'Usually, I do sports at McFit.'

NEs differ syntactically, semantically and pragmatically from (4) in interesting ways. Syntactically, *normal* is unintegrated in contrast to *normalerweise* and is semantically not part of the truth-conditions, and pragmatically, (1) does not, in contrast to (4), implicate that the speaker does any other sport. Rather, (1) convey a non-truth- conditional speaker attitude that the given answer is "normal" and expected. This also witnessed by the fact that NEs, cannot be used discourse initially, but only reactively.

(5) [initial:] {#Normal – Ich mache immer bei McFit Sport / Normalerweise mache ich immer bei McFit Sport}, but shall we go climbing today?

Pragmatically, an NE expresses astonishment over the fact that the question to which it responds was raised in the first place. The aim of this talk is to document the grammar of this non-canonical construction and analyze its semantics and pragmatics by means of formal tools for modeling non-truth-conditional aspects of meaning and the attitudes of the discourse participants and an extension of the common ground model in order to formulate the discrepancy between their beliefs and the (defect)

common ground. The basic idea is that *normal* in NEs does not modifies the propositional content, but rather targets the assertion itself and expresses that it is normal and expected. Somewhat paradoxically, this is only necessary, if, from the speaker's point of view, there is a perceived defect in the common ground; something that is not *normal*.

Testing the Form-Frequency Hypothesis in case systems

Matías Guzmán Naranjo & Laura Becker
(Leipzig University)

The Form-Frequency Hypothesis. Haspelmath (e.g. 2006) proposed that coding asymmetries are not the product of markedness or iconicity, but can be fully explained by frequency asymmetries. That is, whenever a category A is expressed by more phonological material than category B, then A is less frequent than B. This implication also predicts that whenever A is more frequent than B, then A will be expressed by a shorter or equally long form than B. The original observation about the relation between frequency and length is credited to Zipf (1935), who discovered it for lexical items.

Some authors, e.g. Downing and Stiebels (2012, p. 402), and Bobaljik and Zocca (2011), however, have remarked that there is no evidence that the rather claimed cross-linguistic frequency asymmetries for case markers hold within single languages.

The present approach. We address two issue: (i) do language-specific coding asymmetries correlate with the expected frequency asymmetry, and (ii) can this correlation be observed across languages? We consider case and inflection classes so that the confounds of semantic complexity and `markedness' can be minimized.

We systematically measured both the frequency and complexity (in number of segments) of the nominative, accusative, dative, and genitive cases for Czech, Russian, Polish, Latin, Ancient and Modern Greek, Estonian, Finnish, Gothic, Latvian. We collected the data from the Universal Dependencies Project (Nivre et al. 2016), extracted all case endings for all nouns for each language, and tested for significant correlations between the length of the marker and its frequency. As for the latter, both token and type frequency were considered, as well as the number of cases a given marker expresses.

Results. The overall frequencies of the cases alone reveals that, indeed, the proportions of Nom, Acc, Dat and Gen cases vary considerably across languages. With respect to the FF hypothesis for a given case in a single language, we find some strong reversals. Taking those points into account, we propose that one should not look at the frequency of categories (as accusative or plural) but at single markers. That is, the FF hypothesis explains length asymmetry between individual markers, were more frequent markers have less material than less frequent ones. To test this, for each language, we fitted two linear models with length as the dependent variable, and type frequency and token frequency as independent variables. We found that type frequency was at least a predictor as good as token frequency for all languages. For Czech, Russian, and Gothic it proved to be even slightly more predictive. In all languages except for modern Greek, the number of cases that markers are used for was significant. The results for Ancient Greek (lowest FF correlation) show that the correlation is corrupted by some short markers that appear infrequently. In general terms, we can conclude that very frequent markers

are tend to be the shortest while longer markers tend to be less frequent, but, crucially, short markers are not necessarily frequent.

References

Bobaljik, J. D., & Zocca, C. L. (2011). Gender markedness: the anatomy of a counter-example. Morphology, 21(2), 141-166.

Downing, L. J., & Stiebels, B. (2011). Iconicity. Ed. Jochen Trommer. The Handbook of Exponence. Oxford: Oxford UP.

Haspelmath, M. (2006). Against markedness (and what to replace it with). Journal of linguistics, 42(01), 25-70.

Nivre, J., de Marneffe, M. C., Ginter, F., Goldberg, Y., Hajic, J., Manning, C. D., & Tsarfaty, R. (2016). Universal dependencies v1: A multilingual treebank collection. In Proceedings of the 10th International Conference on Language Resources and Evaluation (LREC 2016).

Zipf, G. (1935). The Psychobiology of Language: An Introduction to Dynamic Philology. Cambridge, MA: M.I.T. Press.

The formation of person names: Cross-linguistic patterns and rules

Johannes Helmbrecht, Corinna Handschuh, & Anna Pamies
(University of Regensburg)

Person names (including nicknames) are a functionally defined class of linguistic expressions - and in this respect certainly universal – that show cross-linguistic variation with regard to at least the following three dimensions. First of all, person names (PN) may be part of the lexicon of a language as proprial lemmas. As such they belong to a class of conventionalized/ lexicalized expressions (for example traditional Biblical names in German). Or they may be derived on an *ad hoc* basis (employing, for instance, language-specific grammatical means for this). Ad hoc formations of PN can be found frequently e.g. in Bantu languages, or in the domain of the formation of nicknames, not only in European languages. The second dimension deals with the semantic transparency of the PN. PN may be semantically opaque, or they may be partially or entirely transparent. Old, lexicalized PN are often semantically opaque, and newly formed PN tend to be semantically transparent. However, both dimensions are in principle independent of each other. The third dimension deals with the morphological complexity of the PN. PN may be monomorphematic, or they may be morphologically and/or syntactically complex constructions. For instance, given names in German are mostly monomorphematic, but there is a group of female names that are derived from male names by different endings such as */–ie/*, */-e/*, */-ine/*, a.o.; cf. *Stephan-ie < Stephan, Christian-e < Christian, Wilhelm-ine < Wilhelm,* etc. These endings are used exclusively for the derivation of PN.

The goal of the proposed paper is to present an investigation within the functional-typological approach to language of the last of the three dimensions of PN, i.e. the patterns and rules that indicate directly or indirectly that an expression is a PN. No systematic typological study of these patterns and rules exists so far. Previous treatments of PN such as Anderson (2007) and Van Langendonck (2007) and others are restricted in their scope to a few better known European languages. Patterns and rules that are specific for PN (compared to the morphosyntax and phonology of common nouns) can be found on all linguistic levels such as phonology, morphology, and syntax. Data are taken from descriptive grammars and ethnographic studies. Right now, we have data from about 30 languages, but we strive for a significant larger sample.

Besides the descriptive typology of PN formation devices we aim at generalizations answering the questions: which patterns and rules are relatively frequent, which ones are rather exotic, which semantic categories are marked in PN (sex, kinship, social status) most frequently, and what are the motivations behind the patterns and rules found in our study.

At the end of our presentation we would like to come up with first proposals regarding an explanation of the PN formation rules and patterns within a competing motivations approach.

References

Anderson, John M. 2007. *The grammar of names*. (Oxford Linguistics). Oxford: Oxford University Press.

Langendonck, Willy Van. 2007. *Theory and typology of proper names*. (Trends in Linguistics 168). Berlin, New York: Mouton de Gruyter.

The emergence of Gascon negative tripartite construction *ne…pas jamei* 'never'

Karina High

(University of Texas at Austin)

This study examines the emergence of the negative construction *ne…pas jamei* 'never' in the Béarnais variety of Gascon using data extending from the 15th into the 21st century. In recent texts, the indefinite temporal adverbial *jamei* 'never' appears in multiple constructions ranging from expressions (1a) and questions or conditionals (1b) to bipartite (1c) and tripartite negative constructions (1d).

(1)   a.   ***jamei*** 'forever,' *ara o **jamei*** 'now or never.'

        b.
Avetz	***jamei***	*vist*	*un*	*camp*	*de*	*lin*	*florit?*
have.2pl	ever	see.ptcp	a	field	of	flax	blooming

            'Have you ever seen a flax field in bloom?' (Simin Palay 1961)

        c.
Mes	***n'***	*a*	***jamei***	*ensenha-t*	*la*	*medecina*
but	neg	have.3sg	(n)ever	teach-ptcp	the	medicine

            'But he never taught medicine.' (Miquèu de Camelat 1950)

        d.
Ne	*l'*	*èi*	***pas***	***jamei***	*prometu-t*	*arren*
neg	him	have.1sg	neg	(n)ever	promise-ptcp	anything

            'I never promised him anything.' (Albert Peyroutet 2000)

Although the tripartite construction is recorded in some Gascon grammars (Hourcade 1986: 50, 247; Romieu & Bianchi 2005: 139), it has not been analyzed in detail, especially in relation to the other negative constructions in which *jamei* appears. This study examines the emergence of this tripartite negative construction, while considering the contexts of *jamei*. I examine these contexts in terms of (non-)specificity and negative polarity (Haspelmath 1997) and propose a pathway of emergence for *ne…pas jamei*.

The sources of this study include a 15th century legal document, several poems from the 17th– 19th century, and the *Còrpus Textuau Occitan*, an online collection of literary and non-literary written texts ranging from 1898 to 2012. Of the 647 occurrences of *jamei* in this corpus, 124 appear without a negative adverb, 298 in bipartite, and 225 in tripartite negative constructions. While this could be

attributed to synchronic and diachronic variation, closer examination of the literary texts reveals variation (i.e., in one text, by one author). The emerging patterns suggest that the environment determines the choice of construction in which *jamei* is embedded. Cases in which *jamei* is not accompanied by a negative adverb are limited to expressions (1a) and questions (1b), phrasal negation (2a), or negative polarity contexts represented by conditionals (2b).

(2)　　a.　　*dauna　Mort,　**jamei**　　　lassa, ...*
　　　　　　　lady　　death　(n)ever　tired
　　　　　　　'Lady Death, never tired, ...' (Miquèu de Camelat 1920)
　　　b.　　*Si　　**jamei**　e's　　troba-va en　　un　　moment　　de　　jòia,...*
　　　　　　　if (n)ever enc　refl.3　find-ipf.3sg in　a　　moment　　of　　joy, …
　　　　　　　'If s/he ever found herself/himself in a moment of joy, …' (Jan Palay 1900)

The distribution of *jamei* in negative structures displays an interesting pattern: the literary texts from the late 20th and the early 21st centuries show that tripartite constructions are preferred (37/75) over bipartite constructions (17/75); this suggests that tripartite constructions have only recently become more common, possibly triggered by grammaticalization processes. The preverbal negator *non* undergoes phonetic erosion and reduction of expressive force, prompting its renewal by the addition of an emphatic element *pas*. This proposal is supported by data from the earliest sources, which lack the tripartite structure entirely.

The increased use of the tripartite construction in recent texts underlines the importance of considering the data in their diachronic distribution. While the earlier texts illustrate instances of bipartite constructions, the later non-literary texts contain the tripartite construction almost exclusively.

References

Lo Còrpus Textuau Occitan. (n.d.). Retrieved from http://corpus.locongres.org/credits.htm

Camelat, M. de. (1950). *La literatura gascona*. Pau: Escole Gastou-Febus.

Camelat, M. de. (1920). *Morta e viva*. Pau: Escole Gastou-Febus.

Haspelmath, M. (1997). *Indefinite pronouns*. Oxford;New York; Clarendon Press.

Hourcade, A. (1986). *Grammaire béarnaise*. Pau: Association Los Caminaires.

Larrivée, P., & Ingham, R. (2012). *The evolution of negation: Beyond the Jespersen cycle* (Vol. 235). Walter de Gruyter.

Palay, S. (1961). *Petita vita e vitanta*. Pau: Edicions Reclams.

Palay, J. (1900). *Condes bearnés*. Tarbes: Bibliotheque de l'Escole Gastou-Febus.

Peyroutet, A. (2000). *De la pèth de Cohet*. Pau: Edicions Reclams.

Romieu, M., & Bianchi, A. (2005). *Gramatica de l'occitan gascon contemporanèu*. Bordeaux: Presses universitaires de Bordeaux.

Double Direct Object structures in German: Sychrony and diachrony

Hans Henrich Hock
(University of Illinois)

While the term "ditransitive" is employed variously (e.g. Malchukov et al. 2007, Haspelmath 2015), most work focuses on structures with direct object (DO) + indirect object (IO), with the latter marked prepositionally, dative, or in the same case as the DO ("dative shift"). The fact that beside structures with DO marked acc, and IO as dat, German has structures with two acc-marked complements, as in (1), gets short shrift (e.g. Malchukov et al. 2007: 42). Abraham (2006) dismisses such structures as "exceptional" (123), notes that only the personal acc-marked NP can be passivized (143), and concludes that the structures are not "ditransitive". Valdeson (2012) adds another double-acc structure to the debate; (2).

(1)   *Sie lehrt die Kinder* (acc) *das Einmaleins* (acc)
        'she teaches the times tables to the children'
(2)   *Das* (acc) *frage ich dich* (acc)
        'that I ask you'

I argue that structures like (1) and (2) are in fact Double Direct Object (DDO) structures, hence "real" ditransitives.

First, (1) has counterparts with just one of the DOs, and the DO of either structure can be passivized; (3) and (4). Both acc-NPs, thus, are "true" DOs; *lehren* must be subcategorized as taking two distinct DO sets; and, moreover, both DOs can occur in the same clause (1). This distinguishes *lehren* from verbs that are subcategorized for two distinct DO sets but don't permit both DOs in the same clause (e.g. *fahren* 'drive' + person or vehicle).

(3)   a.   *Sie lehrt die Kinder* (acc)
              'she teaches the children'
        b.   *Die Kinder* (nom) *werden gelehrt*
              'the children are (being) taught'
(4)   a.   *Sie lehrt das Einmaleins* (acc)
              'she teaches the times tables'
        b.   *Das Einmaleins* (nom) *wird gelehrt*
              'the times tables are taught'

Second, while in contemporary German only the personal DO can be passivized if both DOs are present in structures with *lehren*, Early Modern German permitted both (5a) and (5b); see Curme 1913: 563-567.

(5)   a.   *Ich* (nom) *werde das* (acc) *nicht gelehrt*
              'I am not (being) taught that.'
        b.   *Das* (nom) *wird mich* (acc) *nicht gelehrt*
              'that is not (being) taught to me.'

Further, with *fragen* it is possible to passivize both objects in contemporary German:

(6)   a.   *So etwas* (nom.sg) *darf* (3sg) *die Kinder* (acc) *nicht gefragt werden*
              'something like that should not be asked to the children'
        b.   *So etwas* (acc) *dürfen* (3pl) *die Kinder* (nom.pl) *nicht gefragt werden*
              'something like that the children should not be asked.

Similar structures occur in Medieval German and there are parallels in early Indo-European (IE); see e.g. Hettrich 1994, Hock 2004. In some languages (e.g. Sanskrit), only the "personal" DO can be passivized when both DOs are present. In other languages (e.g. Latin and German), either of the two DOs can be passivized with some verbs. In no language can both DOs be simultaneously passivized.

All languages have optional alternative case marking (including PP), which might suggest that one DO may be "secondary". However, some verbs permit alternative case marking for either (or both) of the two DOs. Moreover, in structures with only one of the two DOs there are no limits to passivization.

I conclude that DDOs must be recognized as a distinct subtype of "ditransitives". The fact that in the history of German they have undergone attrition can be explained in terms of the Stratal Uniqueness Law of Relational Grammar (Postal & Perlmutter 1983), if understood as a tendency rather than a universal law (e.g. Comrie 1981). The same explanation applies to the tendency for alternative case marking. In either case, doubling at the Object level is avoided. Moreover, all languages avoid doubling at the Subject level.

References

Abraham, Werner. 2006. Bare and prepositional differential case marking: The exotic case of German (and Icelandic) among all Germanic languages. *Case, valency and transitivity*, ed. by Leonid Kulikov, Andrej Malchukov, and Peter de Swart, 115-146. Amsterdam/Philadelphia: Benjamins.

Comrie, Bernard. 1981. *Language universals and linguistic typology*. Chicago: University Press.

Curme, George O. 1913. *A grammar of the German language*. New York/London: Macmillan.

Haspelmath, Martin. 2015. Ditransitive constructions. *Annual Review of Linguistics* 1: 19-41.

Hettrich, Heinrich. 1994. Semantische und syntaktische Betrachtungen zum doppelten Akkusativ. In: *Früh-, Mittel-, Spätindogermanisch: Akten der IX. Fachtagung der Indogermanischen Gesellschaft*, ed. by George E. Dunkel et al., 111-134. Wiesbaden, Reichert.

Hock, Hans Henrich. 2014. Some notes on Indo-European double direct-object constructions. *Von Fall zu Fall: Studien zur indogermanischen Syntax*, ed. by A. Bammesberger, O. Hackstein, and S. Ziegler, 151-164. (= *Historische Sprachforschung*, 125.)

Malchukov, Andrej, Martin Haspelmath, and Bernard Comrie. 2007. Ditransitive constructions: A typological overview.
http://www.keel.ut.ee/sites/default/files/www_ut/4-ditransitiveoverview.pdf

Postal, Paul, and David M. Perlmutter. 1983. Some proposed laws of basic clause structure. *Studies in relational grammar*, 1, ed. by D. M. Perlmutter, 81-128. Chicago: University Press.

Valdeson, Fredrik. 2012. *A comparison of the argument structure of the German verb fragen and the Faroese verb spyrja: The case of the ditransitive double-accusative construction.* Uppsala Universitet: Institutionen för lingvistik och filologi.
www2.lingfil.uu.se/ling/semfiler/fredrik_valdeson_C.pdf

Stem vowels in Proto-Uralic words of Indo-Iranian origin

Sampsa Holopainen
(University of Helsinki)

In Uralic linguistics, the study of non-initial syllable vowels, the so-called stem-vowels which are always unstressed in Proto-Uralic, has always been in the background, and many aspects of their development has been poorly understood until recently (see Kallio 2012 for a survey of recent developments). Because of this, the study of the substitution of second-syllable vowels in various Indo-European loanword layers in the Uralic languages has also been more poorly understood than the substitution of the first-syllable vowels. However, the study of Germanic and Baltic loans in Finnic has shown that in many cases the substitution is not based on simple phonetic similarity, but sometimes other factors such as acquisition of loanwords to certain stem-patterns play a more significant role (see Junttila 2015 for discussion of stem-vowels in Baltic loans of Finnic).

This seems to be true of the Indo-Iranian borrowings also. While some loans show a neat match between PU and PII stem vowels, such as PU *śata* 'hundred' ← PII *ćata-* id., in many of the loans the chosen stem-type seems to be more complicated and difficult to undestand. This issue is complicated by recent research which has reshaped some of our ideas of Uralic stem-vowels. Aikio's (2015) new reconstruction influences also the stem-vowels of some well-known PII loans, such as PU *śarwi* 'horn', instead of traditional reconstruction *śorwa, from Proto-Indo-Iranian *ćrwa-.

The matter is further complicated by the notion that it is often impossible to determine whether the source of the loans has been the nominative form of the Indo-Iranian words or some inflected form: some loans point to the latter situation, such as PU *počaw* 'reindeer, deer' ← Proto-Iranian *pacu- 'cattle' (Koivulehto 2007); here the full-grade *-au-, found in some forms of the Iranian word (cf. Avestan genetive *pašə̄uš*), would be a suitable origin for the Uralic sequence *-aw.

A possible reason for the seemingly strange substitution of PII *-a-stems could result from the fact that in the Uralic "*i-stems" the high vowel usually reconstructed as *i might have been a reduced, schwa-like vowel instead, as is argued by Kallio (2012). Because of the very simple Indo-Iranian vowel system, Proto-Indo-Iranian *a could have sounded like the Uralic "schwa" in the ears of Proto-Uralic speakers, especially when unstressed. This could offer a possible explanation for the substitution of PII *-a-stems by PU *-i-stems.

In this presentation the substitution stem-vowels of all the Indo-Iranian borrowings in Proto-Uralic will be critically evaluated. It will be especially investigated whether the stressed and unstressed vowels are substituted differently. The expected results of the research are that it is possible to establish substitution patterns for the non-initial syllable vowels of early Indo-Iranian borrowings in Uralic and that the choice of stem-type is not arbitrary.

References

Aikio, Ante 2015: The Finnic 'secondary e-stems' and Proto-Uralic vocalism, in *Journal de la Société Finno-Ougrienne* 95. 26–66.

Junttila, Santeri 2015: *Tiedon kumuloituminen ja trendit lainasanatutkimuksessa. Kantasuomen balttilaislainojen tutkimushistoria*. Doctoral dissertation : Helsinki.

Kallio, Petri 2012: The non-initial-syllable vowel reductions from Proto-Uralic to Proto-Finnic, in Tiina Hyytiäinen, Lotta Jalava, Janne Saarikivi, Erika Sandman (eds.).: *Per Urales ad Orientem*. Mémoires de la Société Finno-Ougrienne 264, Helsinki. 163–175.

Koivulehto, Jorma 2007: Saamen ja suomen 'poro', in Jussi Ylikoski ja Ante Aikio (eds.): *Sámit, sánit, satnehámit,* Mémoires de la Société Finno-Ougrienne 253, Helsinki. 251–258.

Geo-linguistic distribution, diachronic explanation and phonological consequences of vowel loss in central Calabrian dialects

Alice Idone
(University of Zurich)

The present study provides data on the effect and the causes of vowel loss in the central part of Calabria, in the south of Italy.

Two distinct unstressed vowel systems have so far been attributed to Calabrian dialects (see Rohlfs [1966]; Loporcaro [2009]):

I. **Sicilian vocalism** distinguishes only three phonemes and is widespread in most parts of the region;

Latin	ă	ā		ī	ĭ	ē	ĕ		ŏ	ō	ŭ	ū
Sicilian	a			i					u			

II. **Cosentian vocalism** is typical of many dialects of the northern section, and has four unstressed vowels

Latin	ă	ā		ī		ĭ	ē	ĕ		ŏ	ō	ŭ	ū
Cosentian	a			i			e			u			

The central section belongs to the first type (see Falcone [1976]).

If it is in fact true that central Calabrian varieties distinguish only three vowels in the unstressed position, the distribution of these vowels is considerably different from what is usually expected in those dialects with Sicilian vocalism.

As an example, in a circumscribed area of less than 20km^2 close to Serre mountains, three different final vowels are attested for the same lexical entry: Serrese *fòrt*[ɪ], Bivongese *hòrt*[a], Vallelonghese *fòrt*[ɛ] (< Latin fŏrtĕ(m) 'strong').

From a geo-linguistic perspective, synchronic heterogeneous outcomes suggest that here the evolution of the unstressed vowels was not as linear as the literature implicitly states. The discrepancies with the standard Sicilian template involve those terms derived from the third Latin declension (therefore with final -ĕ) and verbal entries for which a -*e can be postulated.

In Idone [2012], indirect evidence (mostly related to the complex working principle of metaphony within these dialects) supports the hypothesis that an unstressed vocalism with four phonemes also existed in central Calabria. It is likely that what is observable today is the result of a complex turnover of the vowel systems. It is plausible that Cosentian vocalism was the prior system in this area, and the Sicilian one overlapped at a later stage.

In the late Middle Ages, the overturning of the political asset exposed Calabria to the pressure of two linguistic models advancing from opposite direction: Cosentian - or better Neapolitan - from the North, and Sicilian from the South (see Barbato [2009]; Parlangeli [1960]).

The combination of diachronic and synchronic evidence makes the variability of unstressed vowels in central Calabria a case of progressive vocalic reduction over time and space.

Fieldwork conducted in 12 villages of central Calabria provides means of retracing the dynamics of this linguistic change. Three main typologies of unstressed vocalism were found:

1) dialects with "fully" Sicilian vocalism (/a/ ~ /i/~ /u/);

2) dialects with "reduced" Cosentian vocalism that preserved final -*e* under some conditions (/a/ ~ (/e/) ~ /i/~ /u/);

3) dialects that appears to be of the type 1), but in which the distribution of [a] and [ɪ] for etymological **-e* depends on different criteria and processes (i.e. vowel harmony; spreading within selected lexical classes, etc.).

By means of the comparison of the aforementioned typologies, the effects of the process of reduction of the phonological and phonetic vowel inventory are evaluated and discussed.

References

Barbato, M. 2009. *Metafonia napoletana e metafonia sabina*. In A. De Angelis (ed.), *I dialetti meridionali tra arcaismo e interferenza*. Atti del Convegno Internazionale di dialettologia (Messina, 4-6 Giugno 2008), Palermo, Centro di studi Filologici e Linguistici Siciliani (Supplementi al Bollettino, 16), 85-102.

Falcone, G. 1976. *Calabria*, in *Profilo dei dialetti italiani*, edited by M. Cortelazzo, 18, Pisa, Pacini.

Idone, A. 2012. *Il dialetto di Serra San Bruno (VV). Descrizione e analisi di alcuni aspetti fonologici e morfologici,* Università degli Studi di Pisa, MA dissertation.

Loporcaro, M. 2009. *Profilo linguistico dei dialetti italiani*, Bari, Laterza.

Parlangeli, O. 1960. *Storia linguistica e storia politica nell'Italia meridionale*, Firenze, Le Monnier.

Rohlfs, G. 1966. *Grammatica storica della lingua italiana e dei suoi dialetti, Fonetica*, vol. I, Torino, Einaudi.

Animacy as a feature constraining morphological complexity

Iván Igartua & Ekaitz Santazilia

(University of the Basque Country & Public University of Navarre / University of the Basque Country)

In addition to its central role in the organization of gender systems and its numerous effects on different parts of the grammar (Ortmann 1998), animacy reveals itself as a significant, sometimes even determinant factor in diachronic processes like the reduction of morphological complexity. Complexity in the realm of inflection may be defined as the extent to which formal distinctions in paradigms are semantically or phonologically unmotivated and therefore largely unpredictable on extramorphological grounds (see Baerman et al. 2010, 2015; for other, though related, definitions, see Stump & Finkel 2013). Animacy emerges in some cases as a feature capable of constraining this kind of complexity by offering a transparent semantic criterion that helps substantiate several formal distinctions in languages.

In this paper, we analyse the diachronic evidence that points to this role of animacy in inflectional systems. The relevant examples come mainly from the history of some Slavic languages (Russian, Czech, Slovak), in which animacy constitutes a subgender (Vaillant 1958). The rise of grammatical animacy in these linguistic systems not only affects the patterns of inflectional syncretisms characterizing different (animate vs. inanimate) paradigms; it also entails an exaptive process of affix refunctionalization that results in the reduction of the morphological complexity inherited from Late Common Slavic. Animacy also appears to guide several processes of inflection loss (as in Akan, a language in which former affixes are either lost or reorganized according to a semantically based

distinction among human, non-human and inanimate nouns, cf. Osam 1993 [1996]). Likewise, newly acquired gender-marking systems (as in Chamorro), however marginal they may be (Stolz 2012), depend on semantic gender, with animacy being crucial again.

As these and other cases that will be discussed show, animacy can be held to be responsible for various developments that cause a significant decrease in morphological complexity. The mechanisms underlying this change include at least the following:

1. Reduction of inflectional allomorphy.
2. Restructuring of residual formal distinctions.
3. Reinterpretation of gender assignment rules.

There is a commonality in all the processes surveyed: whatever its origin, animacy introduces a criterion that provides motivation for certain morphological distinctions, making them predictable on a fairly semantic basis and thereby reducing the overall morphological complexity of the system concerned. Therefore, animacy should be viewed as a determinant factor in language change.

References

Baerman, Matthew, Dunstan Brown & Greville G. Corbett. 2010. Morphological complexity: A typological perspective. Manuscript. Surrey: University of Surrey. (http://webilc.ilc.cnr.it/~pirrelli/ESF_workshop/materiali/corbett/Pisa%20paper-15a.pdf.)

Baerman, Matthew, Dunstan Brown & Greville G. Corbett (eds.). 2015. *Understanding and measuring morphological complexity*. Oxford: Oxford University Press.

Ortmann, Albert. 1998. The role of +/−animate in inflection. In Ray Fabri, Albert Ortmann & Teresa Parodi (eds.), *Models of inflection*, 60−84. Tübingen: Niemeyer.

Osam, Emmanuel Kweku. 1993 [1996]. Animacy distinctions in Akan grammar. *Studies in the linguistic sciences* 23(2). 153−164.

Stolz, Thomas. 2012. Survival in a niche. On gender-copy in Chamorro (and sundry languages). In Martine Vanhove, Thomas Stolz, Aina Urdze & Hitomi Otsuka (eds.), *Morphologies in contact*, 93−140. Berlin: Akademie Verlag.

Stump, Gregory & Raphael Finkel. 2013. *Morphological typology. From word to paradigm*. Cambridge: Cambridge University Press.

Vaillant, André. 1958. *Grammaire comparée des langues slaves. Tome 2: Morphologie. 1ère partie: Flexion nominale*. Lyon: IAC.

Mi-e dor de tine or how a post-verbal subject turns into a predicate

Mihaela Ilioaia & Marleen Van Peteghem
(Ghent University)

Our talk deals with the Romanian construction in (1a), in which Romanian uses a sum pro habeo construction, whereas the other Romance languages use a habeo construction (1b).

(1) a. Ro. Mi- e foame   vs.   b. Fr. J' ai faim   / It. Ho   fame
     me.DAT is hunger   I.NOM have hunger   /   have.1SG hunger
     'I'm hungry'   'I'm hungry'

The construction in (1a) traces back to the latin mihi est pattern, made up of a dative possessor, a 'be' verb and a nominative possessum, which triggers verb agreement and is the post-verbal grammatical subject. This construction comes from Proto-Indo-European, where it was the canonical expression for predicative possession (cf. Benveniste 1966). In Standard Average European this pattern has given way to the habeo pattern, with the possessor as a canonical pre-verbal subject and the possessum as an accusative direct object (Haspelmath 2001).

The aim of our study is to examine to which extent the Romanian construction in (1a) has changed compared to its Latin source. We will show that it no longer expresses possession but a state, and that this semantic change gives rise to a syntactic change: the post-verbal noun develops into a predicate, thus losing its subject function, which is passed on to the dative argument.

Our research is based on a corpus containing data from both contemporary and Old Romanian. As no other ready-made corpora are available for contemporary Romanian, we use a Web Corpus, gathered and tagged through Sketch-Engine. For the diachronic analysis, we made a corpus containing all the oldest available texts from the 16th until the 18th century, and a sample of early modern texts from the 19th, tagged through Sketch-Engine.

The analysis of the data shows that both in old and contemporary Romanian this construction is restricted to a limited set of nouns denoting a physical or psychological state, such as 'hunger', 'cold', 'fear', which cannot be viewed as possessed. From a syntactic point of view, the noun, which is mostly bare, behaves as a predicate in that it may be modified by an adverb and, depending on its argument structure, it can take a prepositional or a clausal complement (*i.e.* a subjunctive clause or an infinitive). As for the dative argument, it is no longer a possessor, but an experiencer. From a syntactic point of view, it tends to take on subject properties in that it can control reflexives (2). The verb *fi* 'be' keeps its existential reading, but takes on an auxiliary function.

(2) Îi   e frică de   a se   dedica sută   la sută   unei   relații
    him.DAT is fear from to REFL dedicate hundred to hundred one.DAT relationship.DAT
    'He is scared of going completely for a relationship.'

A diachronic study of the competition between *fi* 'be' and *avea* 'have' with these nouns will show that the 'be' pattern becomes more and more dominant throughout the centuries, developing into a "construction" as defined in constructionist approaches (*i.e.* a form and function pairing) with a non-canonical pre-verbal dative subject instead of a post-verbal nominative subject.

References

Benveniste, E. 1966. *Problèmes de linguistique générale 1*. Paris, Gallimard.

Haspelmath M. (2001). Non-canonical marking of core arguments in European languages. In A. Aikhenvald, R.M.W. Dixon & M. Onishi (eds.), *Non-canonical Marking of Subjects and Objects*. Amsterdam: Benjamins, 53.

Negation across modalities in Spoken Israeli Hebrew – From verbal to gestural communication

Anna Inbar & Leon Shor

(Tel Aviv University)

The present study will examine negation in spoken Israeli Hebrew as a multimodal phenomenon that is expressed not only in the spoken modality, but also in the gestural one. We will focus on the semantic character of the gestures associated with negation in Hebrew, and on how these gestures are employed as a component in utterance construction. Since negation is essentially an abstract concept, analyzing its image-like representation in the form of gestures could contribute to a better understanding of negation in general. Furthermore, it will be shown that exploring the different ways in which these gestures interact with morphosyntactic negators may lead to a more thorough understanding of the discourse functions of negators in Israeli Hebrew.

To this end, we compiled a 10-hour corpus of TV interviews in Hebrew among over 20 speakers. Instances of grammatical negation associated with gesture were first coded for the type of negation: (1) morphosyntactic elements—particles *lɔ* (main), *al* (prohibitive), or *ɛn* (existential); (2) morphological—negative affixes; and (3) lexical—lexemes with inherent negative meaning. We found that the same gestural pattern was used to accompany all these types of negation. The dominant gestural form was the spreading of both arms horizontally from the center in opposite directions, or the waving of a hand from the center to the side—the right hand moves to the right, the left hand to the left. This gesture has the semantic theme of removing an invisible object from the gesture space. Metaphorically, the negated element is an object pushed aside out of view. This analysis may support to the claim that speaker produces a negative expression under the assumption that the positive counterpart is accessible to the listener.

Another finding was that the use of different gestural patterns seemed to correlate with the discourse functions of the grammatical negation. For example, the aforementioned gestural pattern was typically used when the negator *lɔ* 'no, not' rejected implied elements from prior discourse, such as local assumptions and inferences derived from the interlocutors' turns, as well as overall assumptions derived from the interlocutors' general knowledge of the world. On the other hand, when the negator *lɔ* rejected explicit elements from prior discourse (as in the case of giving a negative response), this gestural pattern was rarely used, and in most cases, head movements from side to side were observed instead. Finally, operating metalinguistically as a discourse marker (e.g., marking misunderstandings and transitions between topics), the negator *lɔ* was not accompanied by any gesture. Thus, gestural communication reveals different functions of the negator *lɔ*, which are not captured as a distinct relation in grammar and can only be inferred pragmatically from the context.

In conclusion, the present study shows that grammatical and gestural features interact with each other during the interpretation of multimodal utterances. Furthermore, the analysis of a visual track of the gestures coordinated with negation illuminates how at different levels of awareness abstract concepts are relocated into concrete and perceptible domains.

References

Bressem, J. & Müller, C. (2014). The family of away-gestures: Negation, refusal, and negative assessment. In Cornelia Müller, Alan Cienki, Ellen Fricke, Silva H. Ladewig, David McNeill & Jana Bressem (eds), *Body — Language — Communication: An international Handbook on Multimodality in Human Interaction*. (Handbooks of Linguistics and Communication Science 38.2). Berlin/ Boston: Mouton de Gruyter, 1592–1604.

Deppermann, A. (2014). "Don't get me wrong": Recipient design by reactive and anticipatory uses of negation to constrain an action's interpretation. In Susanne/Imo Günthner, Jörg Wolfgang/Bücker (eds), *Grammar and Dialogism. Sequential, syntactic, and prosodic patterns between emergence and sedimentation*. Berlin/Boston: de Gruyter, 15–51.

Givón, T. (2001). *Syntax: An introduction*. Amsterdam: John Benjamins.

Harrison, S. & Larrivée, P. (2015). Morphosyntactic correlates of gestures: A gesture associated with negation in French and its organisation with speech. In Pierre Larrivée & Chungmin Lee (eds): *Negation and polarity. Experimental perspectives*. Dordrecht: Springer. 75–94.

Horn, L. R. (2010). Introduction. In Laurence Robert Horn (ed.), *The expression of negation*. Berlin: Mouton de Gruyter.

Kendon, A. (2004). *Gestures: Visible Actions as Utterance.* Cambridge: Cambridge University Press.

Miestamo, M. (2009). Negation. In Frank Brisard, Jan-Ola Östman & Jef Verschueren (eds), *Grammar, meaning and pragmatics*. Amsterdam: John Benjamins, 208–229.

Sovran, T. (2014). Relational Semantics and the Anatomy of Abstraction. New York: Routledge.

The Czech Particle *prý*: Modal, or Evidential?

Markéta Janebová & Michaela Martinková

(Palacký University Olomouc)

According to Czech monolingual dictionaries (e.g. Mejstřík et al. 2009), *prý* [allegedly, they say, it is rumoured, X claims] is a polysemous particle with two senses: first, *prý* introduces somebody else's direct reported speech. In the second meaning, it is a modal particle with the meaning of uncertainty and doubt caused by the fact that the information is only second-hand:

(1)   Je *prý* nemocen.
        [be:3SG PART ill]
        'PRÝ [I hear] he is ill.'

Historically, *prý* goes back to the transitive verbum dicendi *praviti* [to say], which was a full-fledged verb. *Prý* was originally the 3rd person singular or aorist form (*praví* [say:PRS.3SG] or *pravi* [say:AORIST]), which later underwent phonetic reduction and lost all inflections (Machek 2010, 481). In their study of the collocational profile of *prý* in the monolingual written SYN2000 corpus of Czech, Hoffmanová and Kolářová (2007, 101) note a high frequency of *prý* in journalistic texts and also briefly mention the important role *prý* has in the rendering of dialogues in fiction. In their study of the adverb *údajně* [allegedly] in Czech journalistic texts, Hirschová and Schneiderová (2012, 2) observe a reporter's distance from the reported facts not only for *údajně*, but also for *prý*. Importantly, they are the first ones to discuss both expressions in the context of evidentiality, the evidence being a verbal report from somebody else. We investigate whether the meaning of uncertainty or doubt is encoded in the meaning of *prý* introducing indirect speech, i.e. whether *prý* either (a) always carries the meaning of uncertainty or doubt, or (b) two autonomous senses can be recognized here, or whether (c) uncertainty and doubt are only epistemic overtones.

Following Johansson (2007), who argues that "in monolingual corpora we can easily study forms and formal patterns, but meanings are less accessible," we look at *prý* through the lens of another language. We investigate the functions of *prý* via its English correspondences in English source and target texts in the parallel translation corpus InterCorp (in Czech and English, evidentiality is not grammaticalised, but both have lexical markers of evidentiality).

We ask the following questions: 1. Is the source of the reported information (original speaker) always left unexpressed, as the dictionaries suggest, or is the evidentiality of *prý* both reported (i.e. the authorship is not specified) and quotative (i.e. the author is introduced) (Aikhenvald's (2004)

terminology)? 2. Do the correspondences of *prý* explicate its function as an evidential marker of reported information? 3. Do the correspondences of *prý* explicate its function as a modal particle with the meaning of uncertainty and doubt?

English correspondences only confirm its function of an evidential; doubt and uncertainty are not inherent to the meaning of *prý* (hardly any modal translation equivalents were found) but may arise in the context through the process of "invited inference" (see e.g. Traugott and Dasher 2002). We noted that the rise of *prý* can be described in terms of subjectification in the sense of Traugott (e.g. 1995) – ultimately, *prý* is used as a "marker of discourse reference" (Traugott 1995, 39). We noted that the default reporting function is always blocked if the addressee of the reporting event is present in the original interchange, i.e. the information is not new. However, we have discovered variation in the predominant type of evidentiality: while in the texts of Fiction the dominant function of *prý* is quotative, in the other registers the source of the information is left unexpressed in the majority of tokens.

References

Aikhenvald, Alexandra Y. 2004. *Evidentiality*. Oxford: Oxford University Press.

Hirschová, Milada, and Soňa Schneiderová. 2012. Evidenciální výrazy v českých publicistických textech (případ *údajně–údajný*). In *Gramatika a korpus / Grammar and Corpora 2012*. http://www.ujc.cas.cz/miranda2/export/sitesavcr/data.avcr.cz/humansci/ujc/vyzkum/gramatika-a-korpus/proceedings-2012/konferencni-prispevky/HirschovaMilada_SchneiderovaSona.pdf. Accessed 1 July 2015.

Hoffmanová, Jana, and Ivana Kolářová. 2007. Slovo *prý/prej*: možnosti jeho funkční a sémantické diferenciace. In *Gramatika a korpus / Grammar and Corpora 2005*, ed. F. Štícha and J. Šimandl. Prague: Ústav pro jazyk český Akademie věd České republiky.

Johansson, Stig. 2007. *Seeing through Multilingual Corpora. On the Use of Corpora in Contrastive Studies*. Amsterdam: John Benjamins.

Machek, Václav. 2010. *Etymologický slovník jazyka českého*. Prague: Nakladatelství Lidové noviny.

Mejstřík, Vladimír, František Daneš, Jaroslav Machač, and Josef Filipec, eds. 2009. *Slovník spisovné češtiny pro školu a veřejnost*. Prague: Academia.

Traugott, Elizabeth Closs. 1995. Subjectification in Grammaticalization. In *Subjectivity and Subjectivisation: Linguistic Perspectives,* ed. Dieter Stein and Susan Wright, 31–54. Cambridge: Cambridge University Press.

Traugott, Elizabeth Closs, and Richard Dasher. 2002. *Regularity in Semantic Change*. Cambridge: Cambridge University Press.

Corpora

Czech National Corpus – InterCorp. Institute of the Czech National Corpus, Prague. http://www.korpus.cz.

Czech National Corpus – SYN2000. Institute of the Czech National Corpus, Prague. http://www.korpus.cz.

The L1 acquisition of right and left dislocations in French

Morgane Jourdain, Karen Lahousse, & Emmanuelle Canut
(KU Leuven, KU Leuven, & University of Lille)

Introduction

The aim of this study is to investigate how French children use left and right dislocations (henceforth LD and RD) such as (1) and (2) (see De Cat 2002, 2007) throughout their language acquisition path.

(1) **Ces romains**$_i$ je ne   **les**$_i$ aime pas.   (Lambrecht 1981)
    These romans$_i$ I *Neg* **them**$_i$ like not.

(2) **Ils**$_i$ sont fous, **ces romains**$_i$.   (Lambrecht 1981)
    They$_i$ are   crazy, **these romans**$_i$.

This construction is used to express a topic-comment articulation, with the topic being realized as the dislocated element (Lambrecht 1981). Several factors influence its position. New referents and contrastive topics tend to be encoded as LD, whereas old and more accessible referents tend to be encoded as RD (Ashby 1988). In addition, RD are more frequent to disambiguate contexts with a paradigm of activated entities (Ashby 1988).

Children start using dislocations before age 2 (De Cat 2002) which means that they start using them without having all the pragmatic knowledge that adults use.

Research question and method

In this study, we investigate the factors that influence the direction of the dislocated element in children's speech (LD or RD) and how their influence evolves as children grow older.

We conduct our analysis on corpora (Projet TCOF, ATILF) from 126 children from 2 to 9 years of age, for a total of 16,576 speech turns. A total of 2011 dislocations were manually extracted and coded for the direction of dislocation, newness, accessibility, contrast and disambiguation.

Research hypotheses

(i)   The newness of the referents is expected to impact on the direction of the dislocations of the youngest children from our dataset in an adult-like manner.

Children as young as 2;6 encode referents differently whether they were previously mentioned in the discourse or not (Campbell et al. 2000, Hendriks et al. 2014, Wittek and Tomasello 2005),

(ii)   The accessibility of the referent by the listener and ambiguous referents are expected to impact only on older groups' dislocations.

Children are not able to take into consideration shared knowledge. Until age 7 they produce ambiguous pronouns in contexts with a paradigm of activated entities (Hendriks et al. 2014).

(iii) Contrastive topics are expected to impact on the direction of older groups' dislocations.

Sekarina and Trueswell (2011) show that 6 year-old children have difficulties associating the notion of contrast to a syntactic construction.

Results

We found the largest proportion of RD in the group of two year-olds with 96 RD and 110 LD. From 3 years of age, children start producing three times more LD (304 occurrences) than RD (79 occurrences) and this proportion of LD keeps rising in older age groups. This evolution to a more adult-like (Ashby, 1988), higher proportion of LD suggests a change in the factors children use when producing their dislocations. To answer our research question, we will present an analysis of newness, accessibility, contrast and disambiguation and their association with the increased use of LD.

References

Ashby, W. (1988): The syntax, pragmatics and sociolinguistics of left- and right-dislocations in French. *Lingua*, 75, 203-229.

Atilf, Projet TCOF, http://www.cnrtl.fr/corpus/tcof/

Campbell, A., Brooks, P., Tomasello, M. (2000): Factors affecting young children's use of pronouns as referring expressions. *Journal of Speech, Language, and Hearing Research*, 43, 1337-1349.

De Cat, C. (2002): *French Dislocation*. PhD Dissertation. University of York, UK.

De Cat, C. (2007): *French dislocation, interpretation, syntax, acquisition*. [Oxford Studies in Theoretical Linguistics 17]. Oxford: Oxford University Press.

Hendriks, P., Koster, C., Hoeks, J. (2014): Referential choice across the lifespan: why children and elderly adults produce ambiguous pronouns. *Language, Cognition and Neuroscience*, 29, 4, 391-407.

Lambrecht, K. (1981): *Topic, Antitopic and Verb Agreement in Non-Standard French* (Vol. II:6.). John Benjamins B.V., Amsterdam.

Sekarina, I., Trueswell, J. (2011): Interactive processing of contrastive expressions by Russian children. *First Language,* 32, 63-87.

Wittek, A. a. T., Michael. (2005): Young children's sensitivity to listener knowledge and perceptual context in choosing referring expressions. *Applied Psycholinguistics*, 26, 4, 541-558.

Some remarks on variation of systems of demonstrative pronouns in modern Lithuanian dialects

Gintarė Judžentytė

(Vilnius University)

In my previous researches, I established that the ternary system of the demonstrative pronouns (Rosinas 1988, 51; Rosinas 1996, 57–59) in standard Lithuanian has changed to the system of two members (Judžentytė 2017). This paper deals with a synchronic situation of the deictic systems in Lithuanian dialects. It focuses on the systems of demonstrative pronouns as well.

According to Albertas Rosinas, current Lithuanian dialects show deictic systems consisting of two members (Rosinas 1982, 141):

Eastern dialects: Some Samogitian dialects:
itas, *ito(j)* 'proximal'/ *tas*, *to(j)* 'distal'   *tas*, *ta* 'proximal' / *anas*, *ana* 'distal

A deictic system of two members usually shifts to a one-member system in most of Samogitian dialects (see Rosinas 1982, 141):

*šitai **tas**, **tas** šitai* 'proximal' / *antai **tas**, **tas** antai* 'distal'.

As the system of demonstrative pronouns in standard Lithuanian has changed, the latest research has been intended to verify the current situation in Lithuanian dialects. The present paper is aimed to reveal the newest data on systems of demonstrative pronouns in Lithuanian dialects and to discuss it. First, the current system of demonstrative pronouns in some Eastern dialects is revealed (Utena subdialect). Then, the current situation of Samogitian dialects with the stated binomial deictic systems

is presented (Viduklės subdialect). Finally, the question of Samogitian dialects with one member is analysed (Skuodiškiai subdialect).

In order to study the deictic use of demonstrative pronouns, instances of demonstratives that are used to directly refer to objects in the environment of interlocutors are required (Piwek et al. 2008: 12). "Due to the inherently context-bound character of demonstratives, it is necessary to examine their use in spontaneous interaction in all its richness" (Enfield 2003: 83). Such method is pursued in this research, i.e. using the data from video recordings of natural interaction between speakers of the above-mentioned Lithuanian dialects. As an empirical research is all about asking right questions (*formulation of hypotheses*) (Geeraerts 2006: 24), the method of a qualitative interview, precisely a semi-structured interview, was employed (Richards 2009: 186).

The collected material was evaluated taking into account different approaches (Enfield 2003; Huang 2014: 195; Yule 1996: 13). Based on examples of demonstrative pronouns in exophoric uses, I am making the following claims. First, the researched Eastern dialects have confirmed deictic systems consisting of two members and they have not changed yet (*šis* 'proximal' vs. *tas* 'distal'). The Samogitian subdialect with a binomial system of demonstrative pronouns still exists (*tas*, *ta* 'proximal' / *anas*, *ana* 'distal'). This system is very different comparing to others, i.e. proximity here is expressed by using a distal demonstrative *tas*. Thirdly, there are no enough arguments to state that most of Samogitian dialects have a one-member system. After comparing the collected video material from the Skuodiškiai subdialect to languages with pure one-member deictic systems, e. g., the French language *Passe-moi ce seau, s'il te plaît!* 'Give me this / that bucket please' (Diessel 2013), I state that the actual system in this subdialect does not correspond to other one-member systems.

References

Diessel, Holger. 2013. Is there a deictic frame of reference? In Peter Auer, Martin Hilpert, Anja Stuckenbrock, and Benedikt Szmrecsanyi (eds.), *Space in Language and Linguistics: Geographical, interactional, and cognitive perspectives*, Berlin: Walter de Gruyter. 687-692.

Enfield, Nick J. 2003. Demonstratives in Space and Interaction: Data from Lao Speakers and Implications for Semantic Analysis. *Language* 79(1). 82-117.

Huang, Yan. 2014. *Pragmatics*. Oxford: Oxford University Press.

Geeraerts, Dirk. 2006. Methodology in Cognitive Linguistics. In Gitte Kristiansen, Michel Achard, René Dirven, Francisco J. Ruiz de Mendoza Ibáñez (eds.), *Cognitive Linguistics: Current Applications and Future Perspectives*. Berlin/New York: Mouton de Guter. 21-49.

Judžentytė, Gintarė. 2017. Spatial Deixis in Lithuanian: Demonstrative Pronouns, *Valoda: nozīme un forma* 8 (accepted).

Piwek, P. et al., 2008. 'Proximal' and 'distal' in language and cognition: evidence from deictic demonstratives in Dutch. *Pragmatics* 40 (4). 694-718.

Richards, Keith. 2009. Interviews. In Juanita Heigham and Robert A. Crocker (eds.) *Qualitative Research in Applied. Linguistics: A Practical Introduction*. Hampshire: Palgrave. 182-200.

Rosinas, Albertas. 1996. *Lietuvių bendrinės kalbos įvardžiai*. Vilnius: Mokslo ir enciklopedijų leidykla.

Rosinas Albertas. 1988. *Baltų kalbų įvardžiai*. Vilnius: Mokslas.

Rosinas Albertas. 1982. Deiktinės sistemos baltų kalbų tarmėse. *Baltistica* 18(2). Vilnius: Mokslas.

Yule, George. 1996. *Pragmatics*. New York: Oxford University Press.

Hebrew's Concurrence Verbs as a Universal Perfect Precursor

Danny Kalev
(Tel Aviv University)

Hebrew's inflectional form *pa'al* designates past tense[3]. Nonetheless, I will argue that a specific subcategory of performative verbs (Austin 1962) uses *pa'al* to indicate non-past events. I will address two questions:

- What is the motivation for this seemingly counter-intuitive inflectional pattern?
- Is this phenomenon linked to other grammaticalization processes currently taking place in Hebrew?

Hebrew performative verbs pertaining to negotiation, persuasion and approval form a semantic category, which I term Concurrence Verbs. Their *pa'al* form often denotes non-past events:

1. Z: *efshar   litfos   itax   tremp?*
   possible catch.INF   with.2SG.F   ride
   'Can I get a ride?'
   L: ***natati***
   give.PST.1.SG
   'Yes, I will give [you a ride] (lit. I gave)'
2. ***kaniti***
   buy.PST.1SG
   'I'll take it (lit. I bought)'

Most Concurrence Verbs have a literal meaning, which does not indicate concurrence, as well a figurative meaning of concurrence. Minimal pairs illustrate the peculiar temporal-aspectual characteristics of Concurrence Verbs. The literal *kibalti* 'I received' indicates past tense:

3. A: *kibalt   et   ha-hoda'a?*
   receive.PST.2SG.F   ACC   DEF.message
   'Did you receive the message?'
   B: ***kibalti***
   receive.PST.1SG
   'I received [it]'

By contrast, the concurrence variant *kibalti* 'I accept' denotes present tense:

4. A: *hareyni magish   ba-zot et   hitpatrut-i*
   I-hereby submit.PRS.SG.M   in-this ACC   resignation-my
   'I hereby submit my resignation'
   B: ***kibalti***
   accept.PST.1SG
   'I accept (lit. I accepted)'

---

[3] *pa'al* is used here as a generic term referring to the suffixed forms of all the seven verbal derivational templates (*binyanim*). This naming convention is adopted from Bar (2003).

Stative Concurrence Verbs seem to conform to this pattern. A literal *ahavti* 'I loved' conveys past tense (5), whereas the metaphorical meaning thereof ('I like') instigates a non-past construal as shown in (6) and (7):

5. *eix **ahavti** otax kmo iver meshuga* (from a Hebrew pop song)
how love.PST.1SG you.ACC as blind mad
'How I loved you as would a blind madman'

6. ***ahavti** et ha-simla*
love.PST.1SG ACC DEF-dress
'I like (lit. I loved) [your] dress'

7. ***ahavti***
love.PST.1SG
'Like (on Facebook)'

I argue that *pa'al* in (1,2,4,6 and 7) above does not indicate the time of the event but rather the *inception point* of a state of concurrence. Once established, this state of concurrence persists throughout the current situation and beyond it, as shown in (1) and (2) above, where commitments for the future are undertaken. *ahavti* in (6) is thus interpreted as 'I have liked your dress from the moment I saw it'. I argue that *pa'al* tokens of Concurrence Verbs carry a *universal perfect* (U-perfect) aspect, which indicates that the predicate holds throughout some interval stretching from a specific point in the past up to the present, and most likely into the future, e.g. *Mary has lived in Boston for three years* (Iatridou 2001: 191). Furthermore, I argue that the emergence of a U-perfect construction is not an isolated phenomenon in Hebrew. Rather, it is linked to the emergence of new future perfect constructions (Kalev, 2015). Both phenomena imply that Hebrew, which is often regarded as a tense-prominent language (Bhat 1999: 151), is currently developing a perfect aspect.

References

Austin, John L. 1962. *How to do things with words*. Oxford: Clarendon Press.

Bar, Tali. 2003. *If, conditional sentences in contemporary Hebrew: Structure, meaning, and usage of tenses*. Munich: Lincom Europa.

Bhat, D. N. Shankara. 1999. *The Prominence of Tense, Aspect and Mood*. Amsterdam: John Benjamins.

Iatridou, Sabine., Elena Anagnostopoulou, & Roumyana Izvorski. 2001. Observations about the Form and Meaning of the Perfect. in Michael Kenstowicz, ed., *Ken Hale: A Life in Language*. MIT Press.

Kalev, Danny. 2015. The grammaticalization of the anterior in Contemporary Hebrew. in Aviv Amit and Hava Bat-Zeev Schyldkrot , eds., *Proceedings of the 29th-30th Annual Meetings of the Haiim B. Rosén Israeli Linguistic Society*, XX:51−60 [in Hebrew].

Noël, Dirk. 2007. Diachronic construction grammar and grammaticalization theory. *Functions Of Language* 14: 177-202.

Elliptical infinitive constructions in Latvian

Andra Kalnača & Ilze Lokmane

(University of Latvia, Riga)

When discussing ellipsis in Latvian predicative constructions with the infinitive are of particular interest:

(1)   a.   *Ko*   *man*   ***darīt?***
            what.acc   I.dat.sg do.inf
            'What do I do?'

        b.   *Ko*   *man*   ***bija***   ***darīt?***
            what.acc   I.dat.sg be.cop.pst.3   do.inf
            'What could I do?'

        c.   *Ko*   *man*   ***būs***   ***darīt?***
            what.acc   I.dat.sg be.cop.fut.3   do.inf
            'What will I do?'

The agent in these constructions is in the dative, while the predicate is expressed either by a grammatically independent infinitive (1a) (see Mathiassen 1997) or by an infinitive together with the copula *būt* 'to be' in the past (1b) or future tense (1c) (Nītiņa & Grigorjevs 2013, for more details on the functions of the infinitive see Wurmbrand 2003). It is important to remark that the verb *būt* 'to be' cannot be used in the copular function in the present tense, thus the following sentence is impossible in Latvian:

(2)   **Ko man **ir** darīt?*

The above constructions express deontic modality – the meaning of necessity or possibility (Nītiņa & Grigorjevs 2013).

The constructions raise the question as to how to interpret the independent infinitive functioning as a predicate – as a case of ellipsis (in the sense of, e.g., Kroeger 2004; Trask 2008) or as a special case of predicatives, i.e. a simple verbal predicative. If it is seen as a case of ellipsis, it can represent 2 different constructions:

1) a verbal copular predicate with the ellipsis of the verb *būt* 'to be';
2) a complex verbal predicate with the ellipsis of a modal verb, e.g., *vajadzēt* 'should' (for details on Lithuanian (another Baltic language) see Paulauskienė 1994; Ambrazas 1996).

In the first case the predicative infinitive construction can be considered to involve a paradigmatic gap of the copula *būt* 'to be', taking into account its past or future form (see Baerman, Corbett, Brown 2010 on defective paradigms).

In the second case, if we presume the ellipsis of a modal verb, the construction can be interpreted as a lexical gap unrelated to copular constructions.

The report will provide further analysis of predicative constructions using different strategies (polarity etc.) to find out if predicative constructions with the infinitive are best viewed as cases of ellipsis (and if yes, which type) or if the construction with the copula *bija/būs* 'was/will be' and the construction without the copula should be considered as two different types of predicates not related to ellipsis.

References

Ambrazas Vytautas. (ed.). 1996. Ambrazas, Vytautas. (ed.). 1996. *Lithuanian Grammar.* Vilnius: Baltos lankos.

Baerman, Matthew, Corbett, Greville G., Brown, Dunstan. (eds.). 2010. Defective Paradigms. Missing Forms and what they tell us. Oxford: Oxford University Press.

Kroeger, Paul R. 2004. *Analyzing Syntax.* Cambridge: Cambridge University Press.

Mathiassen, Terje. 1997. *A Short Grammar of Latvian.* Slavica Publishers, INC.

Nītiņa, Daina & Juris Grigorjevs. (eds.) 2013. *Latviešu valodas gramatika.* Rīga: LU Latviešu valodas institūts.

Paulauskienė A. 1994. *Lietuvių kalbos morfologija.* Vilnius: Mokslo ir enciklopedijų leidykla.

Trask, Robert L. 2008. *Language and Linguistics. The Key Concepts.* Stockwell, Peter (ed.). Routledge.

Wurmbrand, Susanne. 2003. *Infinitives.* Berlin. New York: Mouton de Gruyter.

Cross-sectional and longitudinal research on language proficiency and literacy skills of Russian heritage speakers in Cyprus

Sviatlana Karpava

(University of Central Lancashire, Cyprus)

Heritage speakers are bilinguals in home and dominant language, they have more family or cultural motivation and connection to the former, minority or immigrant language, and are more proficient in the latter, society language (Valdes, 2000; Polinsky and Kagan, 2007; Benmamoun et al., 2013; Polinsky, 2015).

The present study is focused on language proficiency and literacy skills of Russian–Cypriot Greek bilingual children, Russian heritage speakers, children of the first generation immigrants living in Cyprus. Their dominant society language is Cypriot Greek, while their home (weak/minority) language is Russian. They have limited exposure to Russian, only at home, and low level of schooling in Russian, only 1-2 hours of Russian lessons per week (Saturday schools).

28 simultaneous bilingual children (Russian–Cypriot Greek), born in Cyprus (father CG and mother Russian) participated in the study. Their age ranges from 4;6 to 11;3, and they attend pre-primary and primary Cypriot Greek school (1st–4th grades), where the language of instruction is Greek.

Both cross-sectional and longitudinal methodology was implemented to investigate developmental trajectory, dominant language transfer, divergent attainment and attrition of Russian by Russian heritage speakers in Cyprus (Polinsky, 2006; Polinsky and Kagan, 2007; Montrul, 2008, Benmamoun et al., 2013).

Their language proficiency in CG and Russian were measured with the Developmental Verbal IQ Test (DVIQ), slightly adapted to CG from Stavrakaki and Tsimpli's (2000) SMG original and the Russian Proficiency Test for Multilingual Children (RPTMC) (Gagarina et al., 2010) respectively.

Heritage speakers were measured on their reading and writing skills in Russian every month for a period of one year. Longitudinal data consists of the written corpus of dictations and oral corpus of reading aloud recordings. Oral Russian spontaneous and elicited speech production of their mothers is also under investigation as this allows to reveal the native baseline (Russian) and the actual input that the children receive (Benmamoun et al., 2013; Montrul, 2008; Polinsky and Kagan, 2007).

It was found that heritage children were better at reading than writing, comprehension than production. They had both developmental and transfer (from CG) spelling errors in their dictations. There was found a correlation between speech rate, word-per-minute output in reading and spontaneous/elicited speech, and degree of grammatical knowledge, this is in line with Polinsky (2008, 2011).

The results of the DVIQ test showed for production bilingual children performed better for lexicon rather than for morpho-syntax; for comprehension bilingual children scored higher for morpho-syntax comprehension than for metalinguistic concepts.

The analysis of the RPTMC results revealed that for production the best performance was for verbal inflections, while the worst was for case; for perception bilingual children had a better production for nouns in comparison to verbs and grammatical constructions.

Overall, the results show that these bilingual children have better comprehension in both languages, Russian and Greek, than production. The gap between production and comprehension can be eliminated with more exposure to both languages and more output in both languages (Thordardottir, 2011; Hoff, 2006; Hoff et al., 2012; Pearson et al., 1997; Bedore et al., 2012).

Definiteness marking in Moksha[4]

Egor Kashkin

(V. V. Vinogradov Russian Language Institute of RAS)

This paper deals with the use of the definite declension in Moksha (< Mordvin < Finno-Ugric). Moksha has three declension types, traditionally labelled as definite (or "demonstrative"), indefinite (or "basic"), and possessive. The possessive type is outside our discussion (see its analysis in Pleshak 2015). According to the traditional view (Koljadenkov, Zavodova 1962: 83; Evsevjev 1963: 56; Tsygankin 1980: 210), the use of definite and indefinite declensions only depends on the definiteness of a NP. I will show that the choice of a declension type cannot be reduced to the factor of referential status and also depends on the syntactic function and on information structure, often involving the interaction of all these factors. My data comes from fieldwork in the villages of Lesnoje Tsibaejvo and Lesnoje Ardashevo (Mordovia, Russia) in 2013-2016 and includes both elicited examples and those taken from spontaneous texts.

The factor of syntactic function is important for most referential statuses. In general, it makes definiteness marking less obligatory (or sometimes less grammatical), but the borderline on the hierarchy of syntactic relations (in terms of Keenan, Comrie 1977: 66; Kibrik 2003: 110) varies across referential types. Thus, a definite NP requires the definite declension if it is a subject, a direct object or an indirect object. In the oblique position, the indefinite declension is acceptable, but only for locative cases and not for dependents in a postpositional phrase (see (1)–(2), the definite inessive in (1) is analytical). Thus, Moksha develops here a further opposition within obliques, which can possibly be explained by the priority of morphological marking in the choice of a declension type (the morphological form of a noun is the same in postpositional phrases and in the subject or direct object which require marking of definite NPs).

(1)   *vaz'-s'*   *ašč-i-Ø*   *t'ɛ*   **karopka-t'**   **esə**   **/karopka-sə**

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cap-def.sg	be-npst.3-sg	this	box-def.sg.gen in	box-in

'The cap is in this box'.

(2) *vaz'-s' ašč-i-Ø t'ɛ **karopka-t'** /*karopka-n' / *karopka lank-sə*

cap-def.sg be-npst.3-sg this box-def.sg.gen box-gen box on-in

'The cap is on this box'.

In generic NPs, the definite declension competes with the indefinite one in the higher ranks (being favoured in topical contexts), but is almost impossible in obliques (3). At the same time, for distributive universal NPs the borderline between marking strategies is higher on the syntactic hierarchy: subjects and direct objects require definiteness marking, while indirect objects (4) and obliques are compatible with both declensions. Interestingly, the syntactic factor is irrelevant for indefinite and non-specific NPs, probably because they are usually incompatible with the definite declension by themselves.

(3) *vel'ə-n' lomat'-t'n'ə kel'k-sa-z' **vir'-sə** /$^{??}$*vir'-t'* esə*

village-gen man-def.pl love-npst:3.o-3.s.pl.s/o forest-in forest-def.sg.gen in

gul'anda-ma-snə-n

walk-nzr-3pl.poss-gen

'Rural inhabitants like walking in forest [in general]'.

(4) *mon' baba-z'ə **ɛr' loman'-t'i** / **loman'-ən'd'i** pomaga-j-Ø*

I.gen grandmother-1sg.poss.sg any man-def.sg.dat man-dat help-npst.3-sg

'My grandmother helps any person'.

The factor of information structure (in the framework of Lambrecht 1994) is especially prominent in predicate (kind-referring) NPs. If the head of a predicate NP is focal, it cannot take the definite declension, but definiteness marking becomes possible on a topical head:

(5) – *ko-sə rabəta-j-Ø maša? – son **učit'el'n'ica** / ***učit'el'n'ica-s'***

where-in work-npst.3-sg Masha (s)he teacher teacher-def.sg

'– Where does Masha work? – She is a teacher'.

(6) *–kodamə maša azərava-s' / ^{OK}azərava?*

what Masha housewife-def.sg housewife

– *maša c'ebɛr' **azərava-s'** /^{OK}azərava*

Masha good housewife-def.sg housewife

'What kind of housewife is Masha? –Masha is a good housewife'.

To sum up, the obligatoriness of the definite declension falls along the hierarchy of syntactic relations (the borderline for different referential statuses being on indirect object, on oblique, or within obliques). At the same time, definiteness marking is often favoured by the topical status. In my talk I will provide the overall scheme of how all these factors interact, as well as the comparison with my field data from some other Finno-Ugric languages (primarily Erzya and Komi) showing some similar patterns. In a broader typological research the interaction of definiteness with other grammatical phenomena (e. g. differential case marking, number marking, argument structure, information structure) was discussed with various degree of detail for various cases (Lyons 1999: 199–226; Danon 2001; Schroeder 2006; de Swart, Zwarts 2008, etc.). However, the interdependence of referential, syntactical, and topical properties in one particular language still has not been claimed as a trivial case.

Abbreviations

3 – 3rd person; DAT – dative; DEF – definiteness; GEN – genitive; IN – inessive; NPST – non-past tense; NZR – nominalization; O – object; PL – plural; POSS – possessiveness; S – subject; SG – singular;

References

Danon, Gabi. 2001. Syntactic definiteness in the grammar of Modern Hebrew. *Linguistics* 6, 1071–1116.

de Swart, Henriëtte, Zwarts, Joost. 2008. Article use across languages: an OT typology. A. Grønn (ed.) *Proceedings of SuB12.* Oslo: ILOS, 628–644.

Evsevjev, Makar. 1963. *Osnovy mordovskoj grammatiki (Izbrannyje trudy. Tom IV)* [Essentials of Mordvin grammar (Selected papers. Vol. IV)]. Saransk: Mordovskoje Knizhnoje Izdatel'stvo.

Keenan, Edward, Comrie, Bernard. 1977. Noun phrase accessibility and Universal grammar. *Linguistic Inquiry* 1, 63–99.

Kibrik, Alexandr. 2003. *Konstanty i peremennyje jazyka* [Constants and variables of language]. Saint-Petersburg: Aletheia.

Koljadenkov, Mikhail, Zavodova, Raisa. 1962. *Grammatika mordovskix (mokshanskogo i erzjanskogo) jazykov. Ch. I. Fonetika i morfologija* [Grammar of the Mordvin languages (Moksha and Erzya). P. I. Phonetics and morphology]. Saransk: Mordovskoje Knizhnoje Izdatel'stvo.

Lambrecht, Knud. 1994. *Information structure and sentence form. Topic, focus and the mental representation of discourse referents.* Cambrige: Cambridge University Press.

Lyons, Christopher. 1999. *Definiteness.* Cambridge: Cambridge University Press.

Pleshak, Polina. 2015. Semantics and morphosyntax of Moksha possessive constructions. *Nyelvtudományi Közlemények* 111, 379–393.

Schroeder, Christoph. 2006. Articles and article systems in some areas of Europe. G. Bernini, M. Schwartz (eds.). *Pragmatic organization of discourse in the languages of Europe.* Berlin, NY: Mouton de Gruyter.

Tsygankin, Dmitrij. 1980. *Grammatika mordovskix jazykov. Fonetika, grafika, orfografija, morfologija* [Grammar of the Mordvin languages. P. I. Phonetics, graphics, orthography, morphology]. Saransk: Izdatel'stvo Mordovskogo Universiteta.

Relative clauses as a result of cooptation: The case of Mano correlatives

Maria Khachaturyan

(University of Helsinki, UC Berkeley)

In this talk, I will explore relative clauses of the correlative type in Mano, a South Mande language, and in a cross-linguistic perspective. The data used for the paper is natural speech data collected by the author.

Correlative strategy is a subtype of non-reduction relativization strategy where "the head noun appears as a full-fledged noun phrase in the relative clause and is taken up again at least by a pronoun

or other pronominal element in the main clause" (Comrie 1998: 62). We will call the head noun NP$_{rel}$ and the corresponding element in the main clause NP$_{mat}$.

The relativized noun phrase in Mano correlatives is extraposed to the left and followed by the marker *lɛ́~nɛ́~tɛ́*. Relative clauses are marked by the topicalization markers *ā* or *ɓɛ̄~wɛ̄*. Consider the following example:

(1) *[ē   nɔ́ɔ̄   ɓɛ̄   lɛ́   è   nàà   ō   ká   ā]*
3sg.refl child.pl dem foc 3sg.sbjv love:ipfv **3pl** with top

ē   nū   ō   sāmā   ká.
3sg.pret come **3pl** gift with
'He brought gifts to his children that he loves (lit.: his children that he loves, he came with their presents).'

I will argue that in Mano, the relation between the main clause and the relative clause is not of syntactic subordination. It should rather be considered a pragmatic interpretation of an erstwhile paratactic construction. I will discuss: 1) syntactic arguments against relative clauses as generated clause-internally (unlike Hindi, Bhatt 2003, but like Hungarian, Lipták 2005; ex. 2); 2) semantic arguments showing that set intersection semantics of relative clauses does not always apply to Mano correlatives (like in Ossetic, Belyaev & Haug 2014; ex. 3), 3) pragmatic arguments, specifically, a striking formal and semantico-pragmatic similarity between correlatives and certain information structure constructions in Mano (ex. 4 - 6).

Example 2 illustrates adjunction of several correlative clauses.

(2) CorCP$_1$ CorCP$_2$ [$_{IP}$ . . . AUX$_1$ . . . Pron$_2$ . . .]

[ɓī$_1$	*lɛ́*	*ī*	*lèíwɛ́lɛ́*	*wà*	*t�á̰à̰*	*ō*	*ɓèī*	*ā]$_{CP1}$*	*[pɛ̄*	*nɔ́fé$_2$*	*lɛ́*	*ō*	*fḭ̀à̰*	*ā]$_{CP2}$*
2sg	fo**c**	2sg.pst	sky	an**d**	eart**h**	3p**l**	mak**e**	top	**thing**	**ever****y**	fo**c**	3p**l**	betwee**n**	top

ī$_1$ nìíì   lɛ̄   ō$_2$ là.
2sg soul 3sg.exi **3pl** pl
'You, who created sky and earth, everything that is in between them, your soul is on them.'

Example 3 is a case where the relation between NP$_{rel}$ and NP$_{mat}$ is that of bridging, a semantic relationship between non-coreferential noun phrases which are tightly connected contextually.

(3) | *[làkólè* | *lɛ́* | *ā* | *ɲɛ̄* | *wɛ̄* | *íì* | *lō* | *í* | *à* | *stage* | *mɛ́-dá̰.* |
|---|---|---|---|---|---|---|---|---|---|---|
| **school** | fo**c** | 3sg.pst>3s**g** | finis**h** | top | 2sg.ipf**v** | go:ipf**v** | 2sg.con**j** | re**f** | **internship** | lear**n** |

'The school that she finished, she will make an internship (related to the school).'

The marker *lɛ́* which follows the NP$_{rel}$ also functions as a marker of focus.

(4) *wìì   lɛ́   mā   zɛ̄.*
    animal foc 1sg.pst>3sg kill
'It was an ANIMAL that I killed (and not a human).'

The topicalizers *ā* and *ɓɛ̄~wɛ̄* that frame the relative clauses have a broad function of marking dependent clauses of various kinds:

(5) *[ŋ́ nū gbāāɓō wɛ̄] ŋ̄ gó* pieton *vɔ̀ kpáá yā yí.*
     1sg.conj come now top 1sg.pst leave pedestrian pl route dem in
‘Now when I came, I left the pedestrian way’.

Therefore, correlative clauses don't have any exclusive marking which doesn't occur in other constructions. There exist constructions which are formally identical to correlative clauses but don't receive a correlative interpretation.

(6) *[yílíɲáágɔ̀ tɛ́ Joseph ká ā] à gbē lɛ́ wāā.*
     carpenter foc Joseph with top his son cop dem
‘Joseph being a CARPENTER, here is his son’ (meaning: Joseph is only a carpenter, an unimportant person, his son is also unimportant). NOT ‘The carpenter, who is Joseph, here is his son’.

I will argue that correlative clauses in Mano do not exist as a well delimited formal and functional type, but arise as a pragmatic interpretation of a paratactic information structure construction, namely, topicalized focus construction. Such relatively conventionalized, but at the same time optional, pragmatic interpretation of a construction, can be considered a case of cooptation (Mauri, Sansò 2011). Moreover, correlatives are often considered a prime example of an erstwhile paratactic or coordinating construction developing subordinating properties (Givón 2009). Evidence from Mano supports this hypothesis and illustrates such development at an early stage.

References

Belyaev, O. and D. Haug (2014). Pronominal coreference in ossetic correlatives and the syntax-semantic interface. In *Proceedings of the LFG14 Conference*.

Bhatt,R. (2003). Locality in correlatives. *NLLT 210*, 485–541.

Comrie, B. (1998). Rethinking the typology of relative clauses. *Language Design 1*, 59–86.

Givón, T. (2009). *The genesis of syntactic complexity*. Amsterdam: John Benjamins.

Lipták, A. (2005). Correlative topicalization. ULCL, Leiden university.

Mauri, C. and A. Sansò (2011). How directive constructions emerge: Grammaticalization, constructionalization, cooptation. *Journal of pragmatics 43*, 3489–3521.

Remarks on the distinction between inference and assumption in Finnish

Seppo Kittilä
(University of Helsinki)

Finnish codes evidentiality by grammatically optional particles, of which two, *näköjään* ‘seemingly/inferably’ and *varmaan* ‘probably’ are relevant here. The former is considered an inferential particle, and the latter a modal particle in Finnish linguistics and grammar tradition (see, e.g., Hakulinen et al 2004: 1480, 1484). My goal is not to modify this view, but instead to provide novel information on the use of the two particles. In other words, the paper explores the border

between inference and assumption by examining the (semantic/pragmatic) features that determine the use of the examined particles. In so doing, the paper will also show that the distinction between inference and assumption is clear despite their common features (see de Haan 2001: 201 for a different approach).

The present study is based on a questionnaire comprising 32 scenarios including different kinds of evidence. First, the situations described involved canonical instances of inference and assumption. In the first case, the speaker has concrete sensory evidence ('John is coming' based on seeing John's car approaching, see also De Haan 2001: 193), while in canonical cases of assumption, the speaker is using, e.g., common knowledge for his/her claims ('John is teaching now' based on knowing that John is a teacher and his working day has begun). Put another way, prototypical inference is based on concrete, directly observable, but indirect evidence, while assumption usually concerns indirect and non-concrete information (see Barnes (1984: 262) for Tuyuca, where assumptive appears when the speaker has no evidence). Expectedly, canonical instances of inference were referred to by *näköjään*, while clear cases of assumption received *varmaan*. Additionally, the questionnaire comprised cases, where the distinction is less clear. The denoted situations varied according to the following features:

1. Is sensory evidence involved or not
2. Does the evidence at hand naturally allow multiple interpretations
3. Does our inference/assumption concern past, present or future

The first feature is unarguably central; whenever sensory evidence is lacking, the use of the assumptive particle *varmaan* becomes clearly more frequent (the inferential particle comes originally from the verb 'see', which may be relevant here). In the two other cases, the effect was not as dramatic, althoguh multiple interpretations and inferences/assumptions concerning future events also favored *varmaan*. The study also shows that the distinction between inference and assumption is not based on the nature of evidence alone, but the distinction always includes a subjective component as well. This means that the choice also depends on how the speaker conceptualizes a given event and how reliable s/he considers the available evidence to be. Subjectivity is most visible in feature 2; if the speaker finds multiple interpretations possible based on the available evidence, s/he is more likely to use the assumptive particle *varmaan*. This is directly related to reliability and responsibility; the lower the number of potential interpretations the higher the probability that our interpretation is correct. This manifests the fact that inference is generally more reliable than assumption.

References

Barnes, Janet. 1984. Evidentials in the Tuyuca Verb. *International Journal of American Linguistics* 50: 255-71.

De Haan, Ferdinand. 2001. The place of inferential within the evidential system. *International Journal of American Linguistics* 67: 193-219.

Hakulinen, Auli, Maria Vilkuna, Riitta Korhonen, Vesa Koivisto, Tarja Riitta Heinonen & Irja Alho. 2004. *Iso Suomen Kielioppi*. Helsinki: Suomalaisen Kirjallisuuden Seura.

Non-at-issue Meaning and (Inter)Subjectivity in Ibero-Romance Evidential and Epistemic Modifiers

Anna Kocher

(Universität Wien)

This paper investigates on which levels of interpretation the three Ibero-Romance constructions containing epistemic and evidential modifiers in (1-3) differ.

(1)   Adv
        Obviamente/Seguramente Pedro viene   a la   fiesta. (Sp.)
        obviously/   surely   Pedro comes to the party
        `Pedro will obviously/surely come to the party.'
(2)   EsAdjC
        É óbvio/seguro que o   Pedro vem   à   festa. (Pt.)
        is obvious/sure that the Pedro comes to the party
        `It is obvious/sure that the Pedro will come to the party.'
(3)   AdvC
        Obvio/Segur que en Pere ve   a la   festa. (Cat.)
        obvious/sure que the Pere comes to the party
        `Obvious/Surely, Pere will come to the party.'

I introduce diagnostics (cf. 4) showing that the   modifiers in the three constructions operate on different levels of (non-)at-issue meaning (cf. Potts 2005). The proposition in the scope of the modifier is not asserted but merely put on the table (cf. Faller 2014). Both types of modifiers give rise to an inference that implies different degrees of commitments to p. This accounts for the varying possibility to distance oneself from p (cf. 5).

(4)   Not-at-issue meaning
         A: Evidentemente /Evidentemente que Pedro viene   a la   fiesta.
            evidently   evidently   que Pedro comes to the party
        B: ¡No es verdad! (No viene   a la   fiesta. #No es evidente.) (Sp.)
            not is true   not comes to the   party   not is   evident
        `A: Evidently, Pedro will come to the party. B: That's not true!
        (=He won't come. #It's not   evident.)

(5)   Distancing
a.   Aparentemente o   Pedro vem   à   festa. Mas realmente não acredito nisso. (Pt.)
        aparently   the Pedro comes to the party But   actually   not believe   in it
        `Aparently Pedro will come to the party. But actually I don't believe it.'
b.   Obviamente o   Pedro vem   à   festa. #Mas realmente não acredito nisso. (Pt.)
        obviously   the Pedro comes to the party but   actually   not believe in it
        `Obviously Pedro will come to the party. #But actually I don't believe it.'

   I motivate empirically that subjectivity (an evaluation anchored to the speaker) and intersubjectivity (an evaluation anchored to the speaker and someone else) (Nuyts 2001) can explain the different interpretations of the three constructions. The modifiers are neutral (interpretation of Adv in 1), but different interpretations arise in different syntactic contexts. I propose to split intersubjectivity in two categories. Exclusive intersubjectivity (an evaluation anchored to the speaker and someone else but not necessarily the addressee) arises in EsAdjC (2). Inclusive intersubjectivity

(an evaluation anchored to the speaker and the addressee) is the interpretation of the modifiers in AdvC (4).

References

Faller, Martina. 2014. "Reportativity, (Non-)at-Issueness, and Assertion." *Proceedings of the 40th Annual Meeting of the Berkeley Linguistics Society* 40 (40).

Nuyts, Jan. 2001. "Subjectivity as an Evidential Dimension in Epistemic Modal Expressions." *Journal of Pragmatic* 33: 383–400.

Potts, Christopher. 2005. *The Logic of Conventional Implicatures*. Oxford: Oxford University Press..

Post-verbal pronominal subjects in Chechen and Ingush

Erwin R. Komen & Robert D. Bugenhagen

(SIL-International; Radboud University Nijmegen – Netherlands & SIL-International)

The North-East Caucasian languages Chechen and Ingush are strictly SOV in subordinate clauses, but the word order in main clauses varies. Measurements in a corpus of Chechen show that more than 30% of the main-clause subjects are post-verbal and that a third of them are pronominal. Numbers for Ingush are much greater. In several Ingush texts, eighty to ninety percent of the main clause subjects are post-verbal.

This paper addresses the question of what the driving forces are behind post-verbal subject placement in Chechen and Ingush, focusing in particular on pronominal subjects.

For Chechen, we use quantitative research to measure main-clause subject locations in a syntactically annotated corpus (Komen 2015). Since we have a smaller sample of material for Ingush, we use manual counting there.

Chechen limits using post-verbal main clause subjects to presentational focus (nominal subjects) and paragraph-internal cohesion (pronominals). This latter, unexpected, use is illustrated in (1).

(1) a. *I saw my grandmother walking along the railway. She wore a large shawl and carried a long stick; the one she would usually take when she would go to find me.*

  b. Aexkienan dovxachu diinahwUstrada-Evlara
    summer's warm day.loc Ustrada-village.abl
    Dzhalqie qaacchalc aechgan nieq'a t'exula <u>swaje'aniera</u> **iza**.
    Dzhalki.goal until iron road by had.come she
    She had come on a warm summer day all the way from Ustrada village to Dzhalki along the railroad. (Chechen)

Chechen *iza* 'she' in (1b) refers to the grandmother, who has been established as the topic in the preceding context (1a). This makes her the default actor in (1b). Delaying the pronominal reference to her until the last moment in (1b) confirms the reader's intuition resulting in a closer connection with the previous sentence.

In the case of Ingush, Nichols (2011:673) states that "Ingush uses verb-final order in non-main and some main clauses, and verb-second order in most main clauses." In a survey by the second author of several Ingush texts, the default main clause word order seems to reflect an underlying pattern of:

Theme Focus (XP) O V Topical Actor, with 'theme' as the "point of departure of the message" (Halliday and Matthiessen 2014: 89). Topical actors are constituents referring to participants exhibiting multiple references in the discourse.

(2) a. Jurta jistie qaechacha, zhwalie joashajenna foart
          of.village edge when.reached of.dog shaven neck
          bwargajajnaj **berza**.
          noticed wolf
          When they reached the village, the wolf saw the dog's shaved neck. (Ingush)

Post-verbal instances of these topical actors are commonly subjects bearing ergative or nominative morphological case, but there are also instances which exhibit dative or genitive case. And in some cases even objects are observed to be postposed.

Pre-verbal instances of main clause subjects in Ingush seem to be due to factors like: 1) the presence of pragmatic focus/contrast, 2) the subject noun phrase being especially 'heavy' syntactically and 3) the referent possessing less topicality/persistence in the ensuing discourse.

Thus, although they are closely related languages, Chechen and Ingush, exhibit significant pragmatic differences when it comes to post-verbal pronominal subjects.

References

Halliday, M. A. K. and Christian M. I. M. Matthiessen. 2014. Halliday's Introduction to Functional Grammar. Fourth Edition. New York: Routledge

Komen, Erwin R. 2015. *The Nijmegen Parsed Corpus of Modern Chechen (NPCMC)* Nijmegen, Netherlands: Radboud University Nijmegen, http://erwinkomen.ruhosting.nl/che/crp

Nichols, Johanna. 2011. *Ingush grammar.* Berkeley, CA: University of California Press.

The rise of two inverse markers via antipassive constructions

Linda Konnerth

(Hebrew University of Jerusalem and University of Oregon)

This paper presents diachronic pathways for two separate inverse markers in the Trans-Himalayan (Tibeto-Burman) language Monsang (South Central, or "Kuki-Chin", branch). Attested sources for inverse markers are passives, cislocatives, third person markers, or cleft constructions (Gildea and Zúñiga 2016). Instead, and surprisingly opposite to the well-attested passive source, there is strong evidence to reconstruct developments via antipassive constructions.

Monsang has two types of verb paradigms regarding person indexation. One is 'postverbal-only': all person markers occur after the verb stem (Table 1). The other is 'pre-+postverbal', i.e., the paradigm includes prefixal person markers in addition to the postverbal ones (Table 2). The two types of paradigms employ different inverse prefixes: *ì--́* and the homorganic nasal prefix *ŋ̀--́*, both with the same salient tonal pattern of L-H.

Both types of paradigms are equivalent in terms of person indexation: each scenario indexes exactly the same participants; the only difference is which set the person markers come from. In the inverse scenarios, i.e., 2→1 and 3→1/2, the A argument is indexed, with the same postverbal forms that also mark the S argument of intransitives: *-tʃə* for 2nd person, and a paradigmatic zero for 3rd

person. These facts alone point towards an antipassive source: the A argument is indexed with a marker from the set that indexes the S argument, and rather than indexing O, we find a general inverse direction marker.

Considering (near-)homophonous prefixes that could be the source elements for the inverse markers, we find a versatile detransitivizer *ŋ̀--`* , which typically creates a reflexive/reciprocal interpretation, and a versatile nominalizer *ì-*. Both reflexive/reciprocal markers and various types of nominalizers are among the most common sources for antipassive constructions cross-linguistically (Sansò to appear).

While the Monsang detransitivizer *ŋ̀--`* may, under very particular conditions, yield an antipassive reading but under other conditions a passive reading, the related South-Central language K'Chò has a canonical antipassive construction marked by the obviously cognate element *ng'-* (Mang 2006).

The nominalizer *ì--´* does not occur in an antipassive construction in Monsang. However, the very closely related language Anal has a plausibly cognate *i-* prefix, which functions as a reflexive/reciprocal marker (Ozerov, p.c.). It is also important to note that the detransitivizer *ŋ̀--`* cannot co-occur with the nominalizer *i-* in Monsang.

As for why there are two separate inverse markers with separate paths of development, it is necessary to take a closer look at the morphosyntactic environments that gave rise to their evolution. The 'postverbal-only' is the conservative paradigm that employs indexes that reconstruct back to Proto-Trans-Himalayan (DeLancey 1989; 2013; Jacques 2012; among others). The 'pre-+postverbal' is the innovative paradigm that also makes use of prefixal indexes, which are reanalyzed possessive prefixes that became person markers in the course of developing a new finite construction from clausal nominalization (DeLancey 2011a; 2011b). This would offer an explanation why the innovative, newly nominalized 'pre-+postverbal' paradigm needed a new inverse construction, which in turn could readily be derived from the detransitivizing construction.

Data

Table 2. 'Postverbal-only' negative non-future singular paradigms of *bìn* 'beat' (transitive) and *kàr* 'climb' (intransitive) (*-maʔ~-ma:* 'negative'); inverse scenarios shaded

A O	1sg	2sg	3sg	S
1sg	-----------	bìn-má:-ŋ-tʃɘ̀	bìn-má:-ŋ	kàr-má:-ŋ
2sg	ì-bín-má:-tʃɘ́	----	bìn-má:-tʃɘ̌	kàr-má:-tʃɘ̌
3sg	ì-bín-máʔ		bìn-máʔ	kàr-máʔ

Table 3. 'Pre-+Postverbal' affirmative non-future singular paradigms of *bìn* 'beat'(transitive) and *kàr* 'climb' (intransitive) (*-naʔ~-na:* 'imperfective:transitive'; *-ne~-n* 'imperfective:intransitive'); inverse scenarios shaded

A O	1sg	2sg	3sg	S
1sg	-----------	kí-bín-ná:-tʃɘ̀	kí-bín-náʔ	kàr-n-íŋ
2sg	m̀-bín-ná:-tʃɘ̀	------------------	ná-bín-náʔ	kàr-né-tʃɘ̀
3sg	m̀-bín-náʔ		á-bín-náʔ	kàr-né

References

DeLancey, Scott. 1989. "Verb Agreement in Proto-Tibeto-Burman." *Bulletin of the School of Oriental and African Studies* 52 (02): 315–33.

———. 2011a. "Finite Structures from Clausal Nominalization in Tibeto-Burman." In *Nominalization in Asian Languages: Diachronic and Typological Perspectives*, edited by Foong Ha Yap, Karen Grunow-Hårsta, and Janick Wrona, 343–59. Amsterdam/Philadelphia: John Benjamins.

———. 2011b. "Notes on Verb Agreement Prefixes in Tibeto-Burman." *Himalayan Linguistics* 10 (1): 1–29.

———. 2013. "The History of Postverbal Agreement in Kuki-Chin." *Journal of the Southeast Asian Linguistics Society*, no. 6: 1–17.

Gildea, Spike, and Fernando Zúñiga. 2016. "Referential Hierarchies: A New Look at Some Historical and Typological Patterns." *Linguistics* 54 (3): 483–529.

Jacques, Guillaume. 2012. "Agreement Morphology: The Case of Rgyalrongic and Kiranti." *Language and Linguistics* 13 (1): 83–116.

Mang, Kee Shein. 2006. "A Syntactic and Pragmatic Description of Verb Stem Alternation in K'Chò, a Chin Language." M.A. thesis, Chiang Mai, Thailand: PAYAP UNIVERSITY.

Sansò, Andrea. to appear. "Where Do Antipassive Constructions Come from? A Study in Diachronic Typology." *Diachronica* 34 (2).

When "common noun" meets "proper noun"

Eva Kosmata & Barbara Schlücker

(University of Bonn & University of Bonn)

The paper deals with proper name compounds, i.e. nominal compounds that consist of a proper noun as left and a common noun as right constituent (e.g., *Bunsen burner*). Proper name compounding, although often not recognized as a specific type of nominal compounding in the literature, can be found in Germanic languages such as English, Swedish, Dutch, and German. Interestingly, this type of right-headed compounding has even been observed for French (cf. Loock 2013).

The focus of the present study is on English, German, and Dutch. In addition to proper name compounds, these languages make use of genitive and PP constructions and other phrases to express concepts consisting of a proper noun and a common noun (e.g., German *Alzheimerkrankheit* (compound), English *Alzheimer's disease* (genitive), Dutch *ziekte van Alzheimer* (PP construction)). In order to examine systematically which constructions compete with proper name compounds we conducted a cross-linguistic corpus study. Using data from the EUROPARL corpus (Koehn 2005), we compared English, German and Dutch proper name compounds (1.000 items each) with their translation equivalents in the other two languages. Besides compounds, the most frequent constructions that are used in translation are genitive and PP constructions as well as constructions with deonymic adjectives and close apposition. It seems, however, that this distribution is not at random. Firstly, in general proper name compounds are more frequent in English than in German and Dutch. Secondly, it can be shown that the kind of implicit semantic relation that holds between the two nominal entities as well as the name type (e.g., personal name, place name) play a decisive role with respect to the question whether a unit is realized as a compound or differently.

Importantly, however, proper name compounds also challenge the view that the function of noun-noun compounds is to provide names for complex concepts. The function of naming has often been contrasted with that of description and these functions have been ascribed to word formation on the one hand and syntax on the other, that is, in our case, compounds and phrases (e.g., Bauer 1988). While a fundamental assumption of the workshop is that, contrary to this idea, the naming function is

not excluded from constructions that are generally regarded as phrases, the opposite view, namely that there are noun-noun sequences which are clearly compounds from a formal point of view, do not necessarily have a naming function, is not addressed. It seems, however, that this exactly is the case for a subclass of proper name compounds which obviously has to do with the fact that these proper name compounds allow a referential interpretation of the modifier constituent, unlike common noun compounds, e.g., *the Obama speech he gave yesterday*. Thus, such compounds have also been discussed as equivalents to non-naming genitives and other phrases (cf. Rosenbach 2007; Koptjevskaja-Tamm 2013; Schlücker 2017, for instance). Therefore, the paper's second goal is to contribute to the discussion of the formal and functional divide of compounds and phrases also regarding these data.

References

Bauer, Laurie. 1988. *Introducing linguistic morphology*. Edinburgh: Edinburgh University Press.

Koehn, Philipp. 2005. Europarl: A Parallel Corpus for Statistical Machine Translation. University of Edinburgh, Scotland, ms.
http://homepages.inf.ed.ac.uk/pkoehn/publications/europarl-mtsummit05.pdf.

Koptjevskaja-Tamm, Maria. 2013. A *Mozart sonata* and the *Palme murder*: The structure and uses of proper-name compounds in Swedish. In Kersti Börjars, David Denison & Alan Scott (eds.), *Morphosyntactic categories and the expression of possession*, 253–290. Amsterdam, Philadelphia: John Benjamins.

Loock, Rudy. 2013. The emergence of Noun + Noun constructions with a regressive order in contemporary French? *Journal of French Language Studies* 23(2). 259–279.

Rosenbach, Anette. 2007. Emerging variation: determiner genitives and noun modifiers in English. *English Language and Linguistics* 11. 143–189.

Schlücker, Barbara. 2017/in print. Genitives and Proper Name Compounds in German. In Tanja Ackermann, Horst J. Simon & Christian Zimmer (eds.), *Germanic Genitives*. Benjamins.

Guus Kroonen, Peter Alexander Kerkhof and Jóhanna Barðdal

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Impossible but not *difficult*: A typological study of lexical vs. derived antonyms

Maria Koptjevskaja Tamm, Matti Miestamo & Carl Börstell
(Stockholm University; University of Helsinki; & Stockholm University)

The semantic relation of *antonymy* is well established in the linguistic literature. It may be expressed by either distinct lexical items (e.g. *good* vs. *bad*) or by morphologically derived terms (e.g. *happy* vs. *unhappy*), where the latter type constitutes a case of morphological derivational negation (cf. Horn 1989). However, lexical and morphological antonymy do not necessarily exclude each other, as certain "antonym sets" may simultaneously include lexically distinct and derived terms. For cases in which such overlaps occur, the different forms may exhibit differences in meaning and/or connotations (e.g.

unclean vs. *dirty* as the antonym of *clean*). Derivational negation has received limited attention in typological research (cf. Zimmer 1964), and systematic cross-linguistic investigations of lexical vs. derived antonyms are non-existent.

In this study, we investigate the distinction between lexical and morphological antonyms in a typologically and geographically diverse sample of languages (27 languages from 16 families; see Table 2). Our data are based on a questionnaire containing 41 antonym pairs (see Table 1), filled out by language experts of our sampled languages. These antonym pairs come from different adjective classes (cf. Dixon & Aikhenvald 2004): *core* (e.g. dimension, age); *peripheral* (e.g. physical property, speed); and *other* (e.g. difficulty, similarity). Since the corresponding expressions vary in their word-class affiliation, we will use the broader term "property words", rather than "adjectives". In our talk, we specifically address the question of derivational negation as an antonym-forming strategy. Our research questions are:

a) Which types of property words are typically targeted by derivational vs. lexical antonymy, and why?
b) How prominent is derivational vs. lexical antonymy across the individual languages in our sample?

Our preliminary results show that there is a great deal of variation as to *which* property words are targeted by derivational antonym-formation through morphological negation (i.e. *happy* → ***un**-happy*). Table 1 shows the ranking of antonym pairs and the proportion of languages that exhibit morphological negation in the formation of an antonym. Four meanings ('possible', 'important', 'probable', and 'correct') take morphological negation in more than half of the languages. At the other end of the scale, 'black vs. white' and 'right vs. left' do not have derived terms in any of our languages. One generalization we can already make is that concrete physical properties favor lexical expression whereas derivational antonymy is more common with abstract (epistemo)logical relations. We also observe that our sampled languages differ with regard to how prominent morphological negation is for antonymy in the language (see Table 2). For example, while Lithuanian and Russian are able to use morphological negation for the majority of the meanings in the list, other languages (Indonesian, and Yucatec Maya) do not make use of this strategy at all.

In our talk we will examine a wide variety of factors that can influence the distribution of derivational vs. lexical antonymy across types of property concepts on the one hand and across languages on the other.

References

Dixon, R. M. W. & Alexandra Y. Aikhenvald. 2004. *Adjective classes : a cross-linguistic typology*. Oxford: Oxford University Press.

Horn, Laurence R. 1989. *A natural history of negation*. Chicago: University of Chicago Press.

Zimmer, Karl E. 1964. *Affixal negation in English and other languages: An investigation of restricted productivity*. New York, NY: The Linguistic Circle of New York.

Conditional clauses in functional-cognitive space: Evidence from English, Spanish and French

Cristina Lastres López

(University of Santiago de Compostela)

Prototypical conditionals in English, that is, clauses introduced by *if* implying "that the situation in the matrix clause is contingent on that in the subordinate clause" (Quirk *et al.*, 1985: 1088), as in (1), have been widely analysed in the domain of discourse relations.

   (1) If it's a really nice day, we could walk (ICE-GB:S1A-006 #301:1:B)

Less studied, however, have been other constructions also introduced by *if* but in which the presence of this conjunction does not straightforwardly involve the existence of a conditional relation, or at least, other functions may prevail over the conditional interpretation. Similarly, investigations approaching conditional constructions from a cross-linguistic perspective seem to be few and far in between (Lavid, 1998; Hobæk Haff, 2013; Hasselgård, 2014).

In view of the aforementioned, this study sets out to explore the uses, functions, frequencies and distribution of *if*-clauses in English with those reported by their Spanish and French equivalents. Departing from the general definition of conditionality, I will present a typology of conditional clauses which integrates prototypical and less prototypical uses in order to present a model of analysis that has cross-linguistic validity and therefore helps us gain a better understanding of how these constructions work in discourse. The model presented is situated within 'functional-cognitive space' (Butler & Gonzálvez García, 2014; Gómez González *et al.*, 2014) in that it reconciles functional approaches (Halliday & Matthiessen, 2014), with insights from other studies on conditionality that can be broadly considered as cognitive (Sweetser, 1990; Dancygier & Sweetser, 2000, 2005).

Accordingly, besides prototypical conditionals such as (1) above, this study also examines other conditional constructions that formally qualify as prototypical in that they have a protasis and an apodosis, but semantically convey meanings other than conditional or hypothetical ones (Levinson, 1983; Sweetser, 1990; Athanasiadou & Dirven, 1997; *inter alia*). This is the case, for instance, of conditional clauses that express politeness (Sweetser, 1990; Chodorowska-Pilch, 2004; Warchal, 2010), represented in (2) below, in which the expression of politeness supersedes the conditional meaning. Insubordinate conditionals (Schwenter, 1996, 2016; Evans, 2007; Evans & Watanabe, 2016; Kaltenböck, 2016) are likewise incorporated into the picture. In such cases, the *if*-clause stands in isolation from a main clause that cannot be retrieved from the context, as shown in (3) below. Functionally, insubordinate *if*-clauses are rich in the variety of meanings they may convey, expressing functions different from full conditionals.

(2) It is, if I may say so, a somewhat inadequate response to the terrible challenges of our time (ICE-GB:S2B-047 #020:1:A)
(3) If I could add just a personal note (ICE-GB:S2B-020 #033:1:C)

The data examined have been extracted from the spoken component of the International Corpus of English-Great Britain (ICE-GB) (Nelson *et al.*, 2002) and from the Spanish and French subcorpora of the Integrated Reference Corpora for Spoken Romance Languages (C-ORAL-ROM) (Cresti & Moneglia, 2005). The results obtained show that *if*-clauses and their equivalents in Spanish and French may display other functions in addition to conditionality. Significant differences have been attested in the three languages under analysis regarding frequency, distribution, and discourse functions.

References

Athanasiadou, A., & Dirven, R. (Eds.). (1997). *On conditionals again*. Amsterdam: John Benjamins.

Ike, S. (2016). The Interactional Basis of Backchannel Behaviour in Japanese English. *Journal of Sugiyama Jogakuen University: Humanities , 47*, 129-138.

Ike, S., & Mulder, J. (2016). Conceptualising Backchannel Bahaviour in Japanese English and Australian English. *Proceedings of the 18th Annual Conference of Pragmatics Society of Japan.* Nagoya.

Iwasaki, S. (1997). The Northridge earthquake conversations: The floor structure and the 'loop' sequence in Japanese conversation. *Journal of Pragmatics , 28* (6), 661-693.

Spencer-Oatey, H. (2008). Face, (Im)Politeness and Rapport. En H. Spencer-Oatey (Ed.), *Culturally Speaking: Culture, Communication and Politeness Theory* (2 ed., págs. 11-47). London: Bloomsbury Publishing.

Stivers, T. (2008). Stance, alignment and affiliation during story telling: nodding as a token of preliminary affiliation. *Research on Language and Social Interaction , 41* (1), 31-57.

Prescriptivism and the limits of deviation: Atticizing Greek and the diachrony of partial agreement

Nikolaos Lavidas

(Aristotle University of Thessaloniki)

Atticizing Greek (AtG) of the second century AD represents an "artificial" type of language: the aim of Atticism was to imitate the Classical Attic dialect of the fifth and fourth centuries BC. In this respect, atticist authors formed prescriptive rules that opposed characteristics of their contemporary language. On the other hand, AtG demonstrates a syntactic system that differs in many aspects from Classical Attic Greek.

Our case study concerns the development of partial number agreement in Greek, which changed significantly in the second century AD. The aim of the paper is to test the hypotheses that: (a) texts written in AtG demonstrate a syntactic system that differs both from the earlier system of the language (e.g., with respect to the partial agreement characteristics) and their contemporary system (e.g., with respect to the verb-initial/final parameter); (b) there are nevertheless limits of deviation from their contemporary language, which can be observed in texts written in AtG as well as in their prescriptive rules.

Classical Greek permits partial agreement in the cases of both Verb-Subject (VS) [Ex.1] and Subject-Verb (SV) [Ex.2], and with both the adjacent and the highest conjunct (as evidenced in cases of singular agreement when one of the two conjuncts is singular and the other is plural): Leftmost-Conjunct Agreement (LCA) can be found in the case of VS and Rightmost-Conjunct Agreement (RCA) can be found in the case of SV, as can LCA in the case of SV. Post-Koine Greek only allows partial agreement with post-verbal conjoined subjects.

(1)   *oukoûn eí*   *se*   **phileî** *ho*   *patḕr*   *kaì*   *hē*
    then   if   2sg.acc love.**3sg** art.nom father.nom   and   art.nom
    mḗtēr.
    mother.nom

"Then if your father and mother love you." (Pl.,*Ly.*207e)

(2) *blábēn   hēdonḕ   kaì   lúpē   gennâi*
     mischief.acc   pleasure.nom.sg and   pain.nom.sg   generate.**3sg**
     "Pleasure and pain generate mischief." (Pl.,*Ep.*315c)

Koine Greek also differs from Classical Greek in having VSO (and SVO) as the unmarked word order, instead of SOV (see, among others, Taylor 1994, Horrocks 2010). Hence, Greek changed from a verb-final language allowing partial agreement with VS/SV (Classical Greek) into a verb-initial language allowing partial agreement with VS (Post-Koine Greek).

Our corpus study (of texts written in the AtG of the second and third century AD: Aelius Aristides, Flavius Arrianus, Philostratus, Achilles Tatius –Phrynichus [among others]) shows that AtG only allows partial agreement with VS but still retains the verb-final characteristics of Classical Greek. We will argue that there is no correlation between verb-final characteristics and partial agreement. There is, however, a correlation between partial agreement and hyperbaton (P[honetic]F[orm] movements and cases of displacement and discontinuous constituents that do not respect syntactic islands; Agbayani & Golston 2010) (See Ex. 3 for an instance of a "double" hyperbaton case in AtG). The prescriptive rules of AtG favor the productive use of hyperbaton. On the other hand, AtG never shows RCA with VS (which is unattested both in Classical and Post-Koine Greek).

(3)   *…ōkeîa   márgois   phlòks   edaínuto   gnáthois*
        swift.nom greedy.dat flame.nom devoured.3sg jaws.dat
        'The swift flame devoured [the whole plain] with greedy jaws.' (Phryn.,5.3)

References

Agbayani, B. & C. Golston. 2010. Phonological movement in Classical Greek. *Language* 86 (1): 133-167.

Horrocks, G. 2010. *Greek: A History of the Language and its Speakers*. Second Edition. Chichester/ Malden, MA: Wiley-Blackwell.

Taylor, A. 1994. The change from SOV to SVO in Ancient Greek. *Language Variation and Change* 6: 1-37.

The Acquisition of Distance Relations in Deictic Demonstratives by Second Language Learners

Simone Lechner
(University of Hamburg)

Differences of relative distance in deictic pairs like *this* and *that* or *here* and *there* are acquired fairly late in the L1 language acquisition process (Tomasello 2003: 201), which in turn raises the question of how and when distance relations are acquired in Second Language Acquisition (SLA).

This paper investigates transfer effects of distance relations in SLA, focusing on the acquisition of demonstrative pronouns in L1 English, Japanese and German speakers learning L2 German, English and Japanese. German demonstrative pronouns are arguably distance-neutral (Ahrenholz 2007: 39) in spoken language, although they are commonly defined as distance-oriented (Diessel 1999: 38-39). English has a two-way system in terms of distance (proximal (*this*/*that*) and distal (*these*/*those*))

(Huddleston and Pullum 2002) and is distance-oriented. Finally, Japanese has a tripartite, person-oriented system that differentiates between proximal to the speaker (*kore/kono*), proximal to the addressee and distal to the speaker (*sore/sone*), and distal to both the addressee and the hearer (*are/ano*) (Diessel 1999: 39).

This study focuses on L1 English, L1 Japanese and L1 German speakers aged 20-25 in advanced stages of acquiring L2 German, L2 English and L2 Japanese. One of the aims of this study is to critically re-examine claims made in Lado's (1957) Contrastive Hypothesis, which suggests that elements in the L2 that are different from the L1 will be more difficult to acquire, while elements that are similar to the L1 will be easier to acquire, and compare its claims to the possibility that it is the relative or absolute complexity of the linguistic feature in question (Kusters 2003; Miestamo 2008) that most accurately predicts potential transfer effects.

The investigated sample consists of n=180 informants aged 20-25 with comparable socioeconomic and educational backgrounds (n=30 L1 German and n=30 L1 Japanese speakers with L2 English, n=30 L1 Japanese and n=30 L1 English with L2 German, n=30 L1 German and n=30 L1 English speakers with L2 Japanese). Data consists of three elicitation tasks focusing on distance relations when using demonstratives, as well as a grammatical judgment task.

Preliminary results indicate significant ($p < 0.05$) differences in the acquisition of the English deictic system between L1 Japanese and L1 German learners of English as an L2. Results furthermore suggest that interference effects are more likely for German learners of English, whereas the Japanese deictic demonstrative system seems to facilitate the acquisition of the English system.

References

Ahrenholz, Bernt. 2007. *Verweise mit Demonstrativa im gesprochenen Deutsch: Grammatik, Zweitspracherwerb und Deutsch als Fremdsprache*. Berlin: De Gruyter.

Diessel, Holger. 1999. *Demonstratives: Form, Function and Grammaticalisation.* Amsterdam: John Benjamins.

Huddleston, Rodney and Geoffrey K. Pullum. 2002. *The Cambridge Grammar of the English Language*. Cambridge: Cambridge University Press.

Kusters, Wouter. 2003. *Linguistic complexity: the influence of social change on verbal inflection.* Utrecht: LOT.

Lado, Robert .1957. *Linguistics across cultures: Applied linguistics for language teachers*. University of Michigan Press: Ann Arbor.

Miestamo, Matti. 2008. Grammatical complexity in a cross-linguistic perspective. In *Language complexity: Typology, contact, change*, eds. Matti Miestamo, Kaius Sinnemäki & Fred Karlsson. Amterdam: John Benjamins, 23-41.

Tomasello, Michael. 2003. *Constructing a Language*. Cambridge, MA: Harvard University Press.

Why constructions in real life & CMC emotional evaluative arguments: Comparable and parallel corpus data

Barbara Lewandowska-Tomaszczyk
(State University of Applied Sciences; University of Lodz)

Background: The paper focuses on *why* constructions in English and their parallel and comparable corpus counterparts in Polish in spoken data and in the materials drawn from Computer-Mediated

Communication (political and social posts). The constructions – both in their positive and negative forms - possess potential emotional valence combined with an evaluative assessment which are likely to exert an impact on the structure and dynamicity of argumentation patterns in discourses. On the one hand the positive *why* question can be used as an unmarked question, asking about the reason(s) for a certain state of affairs while on the other, it can be prosodically and syntactically marked and convey a refutation of the interlocutor's position in a more or less direct way. Both in real spoken discourse and in the Computer-Mediated Communication (CMC) *why* is often transfigured to signify a refuting sense with the simultaneous presentation of the opposite proposal voiced by the speaker. Used in the form of a question, such utterances convey a challenge, typically expressing or followed by an alternative proposal (*Why didn't you report him?*), imposing the arguments whose truth value remains to be determined. The meaning of such types of *why* questions, frequently signalled by the adversative *but*, is to present an antagonist position with the observed doubts towards the former claim and the presentation of the opponent's own contradictory position towards an issue. The interrogative form function as a positive politeness marker of the interlocutor's face saving device, counterbalancing the face threat contained in the contradictory proposal. A comparison between real spoken data and CMC materials in the two languages is likely to reveal differences in the patterns of use and their frequencies (Martin and White 2005, Biber 2006, Hunston 2011, Lewandowska-Tomaszczyk 2015).

Claim: It is proposed that – dues to a restricted contextual (prosodic and behavioural) marking in the CMC (Lewandowska-Tomaszczyk 2015) – as well as due to a distinct politeness code in direct and in CMC interactions - the incidence of such structures and their status will be lower than in the case of spoken encounters, in which the context is likely to disambiguate the ambiguities between the interrogative and argumentative status of the constructions. It will also be studied to what extent the interactional argumentation is accompanied by an emotional arousal as visible in the language used in terms of lexis and discourse patterns.

Materials and methods: The main focus of the paper is to establish to what extent *why* structures contain the marked, i.e., challenge, meaning both in the quantitative and qualitative terms., in other words, what the linguistic manifestation of this meaning is both on the plane of the lexical, phraseological and discourse levels and finally, to what extent the truth-based rational argumentation is replaced or accompanied by emotional arousal signaled in the interaction. The materials are Polish spoken data (PELCRA), prosodically marked for pitch, stress and intonational contours (Fig.1), and the spoken component of the BNC, and Polish and English translational (parallel) corpora and the alignment tool (Pęzik 2014).
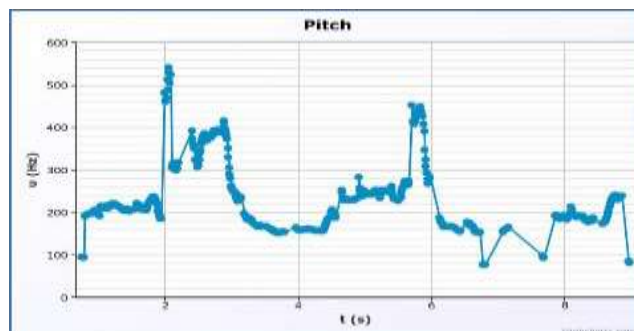
Fig. 1. *ale dlaczego go wywalać pani Alu to może pani go komuś dać jak pani już nie chce*
'but why to throw it away, Ms Ala, you can give it to somebody if you don't want it any more'

Comparable sets of CMC comments are also used as research data. Methodology employed combines discourse and lexical analyses of corpus concordances, collocations, frequency lists and keywords, and the investigation of the type of argument *construal* categories (Langacker 1987, 1991).

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References

Biber, D. 2006. *University Language. A corpus-based study of spoken and written language.* Amsterdam: John Benjamins.

Hunston, S. 2011. *Corpus Approaches to Evaluation. Phraseology and Evaluative Language.* New York: Routledge.

Langacker, Ronald W. 1987, 1991. *Foundations of Cognitive Grammar* Parts 1 and 2. Stanford University Press, Stanford.

Lewandowska-Tomaszczyk, B. 2015. Polish and English emotional Event-Linking Devices of negativity clusters in spoken language – a contrastive study. DiSpol conference. University of Saarbruecken.

Martin, J. R. and P. White, 2005. *The Language of Evaluation. Appraisal in Englsh.* London: Palgrave.

Pęzik, P. 2014. Graph-based analysis of collocational profiles. In *Phraseologie im Wörterbuch und Korpus*. Ed. V. Jesenšek and P. Grzybek, 227–43. ZORA 97. Praha: Filozofska fakuteta.

Sensory Paths in satellite and verb-framed languages: A corpus-based study on their frequency and complexity in German and Spanish

Elsa Liste Lamas

(Zurich University of Applied Sciences)

The contrastive study of 'Sensory Paths', one of the subcategories of Fictive Motion analyzed by Talmy (1996, 2000), has heretofore received little scholar attention, the only exception being 'Visual Paths'. The main reasons for this gap are probably the difficulties in eliciting 'Sensory Paths' and/or the lack of large parallel corpora available for their study. Thus, the research carried out to date (e.g. Slobin 2008; Cifuentes-Férez 2014) is based on small corpora, often comprising one novel and its corresponding translation(s).

Taking this into account, the present study aims to delve deeper into the differences observed both in the frequency and the complexity of Sensory Paths in two typologically different languages, namely German (satellite-framed) and Spanish (verb-framed). With this purpose in mind, it draws on the PaGeS Corpus, a bidirectional parallel German/Spanish corpus with over 5 million tokens, and analyzes the occurrences of Sensory Paths with a selection of verbs of visual (1), auditory (2) and olfactory (3) perception, and Manner of speaking verbs (4) in German and Spanish, in both original and translated texts:

(1)   […] und starrte zur Decke hinauf
         and stared to-the.DAT ceiling away.from.the.speaker.up
         […] y miró al techo

and looked at.the ceiling

(2)   Bastian lauschte in die Dunkelheit

Bastian listened carefully into the.ACC darkness

Bastian escuchó en la oscuridad

Bastian listened in the darkness

(3)   Selbst durch seine Haut schien es [das Kind] hindurchzuriechen

Even through his.ACC skin seemed it [the child] through.to.smell

Le pareció incluso que le olfateaba hasta atravesarle la piel

Him seems even that him smelled until pierce.him the skin

(4)   […] rief der Mann vom Altar herab

exclaimed the.NOM man from.the.DAT altar towards.the.speaker-down

[…] volvió a exclamar el primero desde el altar

exclaimed again the former from the altar

The results confirm the tendencies observed in previous studies contrasting satellite-framed and verb-framed languages. In fact, the Sensory Paths documented are more frequent and complex in German than in Spanish, where they often must be inferred from the context. Moreover, the results show that in both languages Sensory Paths are more frequent with verbs of visual perception and Manner of speaking verbs. Whereas in German Sensory Paths can also be documented with verbs of auditory and olfactory perception, these are extremely rare in Spanish. Finally, Sensory Paths seem to be more frequent and complex in original German texts than in texts translated into German and in texts translated into Spanish than in original Spanish texts.

In order to verify to which extent the results obtained for German and Spanish apply for other languages, we then compare the frequency and complexity of Sensory Paths in two other satellite-framed languages, English and Danish, and two further verb-framed languages, French and Italian. In this case, we rely on a smaller corpus of four contemporary novels in German and four in Spanish, and their respective translations into the other languages. The preliminary results of this cross-linguistic comparison do not only confirm different degrees of path complexity between the chosen satellite and verb-framed languages, but also suggest differences within both typological groups.

References

Cifuentes-Férez, P. 2014. A closer look at Paths of vision, Manner of vision and their translation from English into Spanish. Languages in Contrast, 14 (2), 214-250.

PaGeS= Parallel Corpus German/Spanish. Research Group Spatiales. Universidade de Santiago de Compostela.

Slobin, D. I. 2008. Relations between paths of motion and paths of vision: A crosslinguistic and developmental exploration. In V. M. Gathercole (ed.), Routes to Language: Studies in honor of Melissa Bowerman. New York/London: Psychology Press, 197–224.

Talmy, L. 1996. Fictive Motion in Language and "Ception". Language and Space. In P. Bloom et al. (Eds.). Cambridge, MA: MIT Press, 211-276.

Talmy, L. 2000. Toward a Cognitive Semantics, Vol. I: Concept Structuring Systems. Cambridge, MA: MIT Press.

Monolingual and bilingual learners of English as a foreign language – A case study of German and Russian native speakers

Eliane Lorenz

(University of Hamburg)

Globalization and migration movements changed society: Europe has become an area where multilingualism is normal and constantly increasing (cf. Gogolin et al. 2013, Meyer 2008). This development results also in a change of the German classroom. The former monolingual learning environment includes now children from a variety of linguistic backgrounds. Researchers found out that third language acquisition (L3A) and second language acquisition (L2A) differ considerably (Bardel & Falk 2007, De Angelis 2007, Falk and Bardel 2011, Rothman 2011, Siemund 2017). We can assume that monolinguals transfer from their L1 when acquiring an L2; bilingual or multilingual learners have two or more potential resources for both positive and negative transfer when acquiring an additional foreign language (Siemund 2017). This should result in multilinguals having an advantage over monolinguals. Yet, in the current literature, we find contrasting models concerning L3A (cf. the L1 Factor Model (Na Ranong & Leung 2009); the Cumulative Enhancement Model (Flynn et al. 2004); the Typological Primacy Model (Rothman 2011)). One theory argues the L2 to be the language that is mainly transferred from in L3A (Bardel & Falk 2007; Falk & Bardel 2011; Rothman 2011). However, Cummins' points out that the heritage language "can be a powerful intellectual resource" (302: 2013). Based on this, the present paper follows the aforementioned theory and examines the assumption that the L1 can also be a source for transfer. If this is true, is this transfer positive or negative? Can multilingualism be a positive resource for studying another language and does it put multilingual students in a beneficial situation?

The languages under investigation are German and Russian as native languages and English as the foreign language. The three languages differ substantially in their morphology: English belongs to the group of analytic languages, whereas German and Russian belong to the group of fusional languages (Siemund 2017). The participants are students in school year 7 and 9: L1 German (n=40), L1 Russian (n=20), and L1 Russian/ L2 German (n=40). The task was to write an English text to a picture story and to fill in a questionnaire asking for personal information. With the help of this sample, I intend to provide evidence that not only the L2 (i.e. German, the language of the environment) but also the L1 (Russian) can influence the performance in the L3 (English); the bilingual participants are expected to produce significant differences in the use of tense and aspect from their Russian or German peers. Results reveal, for example, a difference in the use of the progressive aspect in English: the bilingual students appear to be somewhere in between the monolingual Germans and Russians, when considering formal correctness and the target-like meaning of the progressive, and the number of missing auxiliaries. The monolingual Germans produced more formally correct progressives than the monolingual Russians. It is the other way around with the number of progressives that express target-like meanings. Here, the monolingual Russian students scored a higher number than the monolingual German students.

References

De Angelis, G. 2007. *Third or Additional Language Acquisition*. Clevedon: Multilingual Matters.
Bardel, C. & Falk, Y. 2007. The role of the second language in third language acquisition: the case of Germanic syntax. *Second Language Research* 23(4): 459-484.
Cummins, J. 2013. Current research on language transfer: Implications for language teaching policy and practice. In *Multilingualism and Language Contact in Urban Areas. Acquisition – Identities – Space – Education*, P. Siemund, I. Gogolin, M. Schulz & J. Davydova (eds), 289-304. Amsterdam: Benjamins.

Falk, Y. & Bardel, C. 2011. Object pronouns in German L3 syntax. Evidence for the L2 status factor. *Second Language Research* 27(1): 59-82.

Flynn S., Foley C. & Vinnitskaya, I. 2004. The cumulative-enhancement model for language acquisition: comparing adults' and children's patterns of development in first, second and third language acquisition of relative clauses. *International Journal of Multilingualism* 1(1): 3-17.

Gogolin, I. Siemund, P., Schulz, M., & Davydova, J. 2013. Multilingualism, language contact, and urban areas. An introduction. In *Multilingualism and Language Contact in Urban Areas. Acquisition – Identities – Space – Education*, P. Siemund, I. Gogolin, M. Schulz & J. Davydova (eds), 1-15. Amsterdam: Benjamins.

LiMA, Linguistic Diversity Management in Urban Areas-LiPS, LiMA Panel Study. (2009-2013). *Projektkoordination LiPS: Prof. Dr. Dr. H. C. Ingrid Gogolin; ©LiMA-LiPS 2013.* Hamburg: LiMA.

Meyer, B. 2008. Nutzung der Mehrsprachigkeit von Menschen mit Migrationshintergrund. Expertise für das Bundesamt für Migration und Flüchtlinge. Universität Hamburg.

Na Ranong, S., Leung, Y.I. 2009. Null objects in L1 Thai-L2 English-L3 Chinese: an empirical take on a theoretical problem. In *Third Language Acquisition and Universal Grammar,* Y.I. Leung (ed), 162-191. Bristol: Multilingual Matters.

Rothman, J. 2011. L3 syntactic transfer selectivity and typological determinacy. The typological primacy model- *Second Language Research* 27(2): 107-127.

Siemund, Peter (2017). Englisch als weitere Sprache im Kontext herkunftsbedingter Mehrsprachigkeit. In J. Duarte, I. Gogolin, T. Klinger, B. Schnoor & M. Trebbels (eds), *Sprachentwicklung im Kontext von Mehrsprachigkeit – Hypothesen, Methoden, Forschungsperspektiven*. Wiesbaden: Springer VS.

Temporal iconicity, grammaticalization and verb order in instrumental SVCs

Joseph Lovestrand

(University of Oxford)

Data from instrumental serial verb constructions (SVCs) in Malayo-Polynesian languages (e.g. Ambonese Malay: Paauw 2008; Colloquial Jakartan Indonesian: Sneddon 2006; Kupang Malay: Jacob and Grimes 2011; Taba: Bowden 2001) support the hypothesis that a pragmatic principle of temporal iconicity prevents the grammaticalization of anti-iconic fixed verb orders in instrumental SVCs. The same data falsify the competing hypothesis, that verb order is constrained indirectly by a "thematic hierarchy".

It has been observed that in instrumental SVCs which use the verb 'take' to introduce the instrument the 'take' verb always precedes the main verb (Muysken 1988; Sebba 1987:144-145). This is true regardless of whether the language is right-headed (VO) or left-headed (OV). See the examples of an instrumental SVC in Sranan (VO), example 1, and an instrumental SVC in Ijo (OV), example 2. The relationship between the verbs in these SVCs does not correspond to the verb-complement relationship.

Sranan (Surinamese creole) (Muysken 1988, cited in Carstens 2002; cf. Muysken and Veenstra 1994)

(1)   no   teki   baskita tyari   watra

    no   take   basket carry   water
    Don't carry water with a basket!

Ijo (Niger-Congo) (Williamson 1965:53)

(2)   áràụ́,   zu ye ákị,   buru   tèri-mí
    3SG   basket take   yam   cover-PST
    She covered the yam with a basket.

    Several linguists have proposed that the order of verbs in SVCs, including instrumental SVCs, can be explained by appealing to a principle of temporal iconicity (Durie 1997; Li 1993; Lord 1993; Muysken 1988; Nishiyama 1998; Tai 1985). The order of the verbs reflects the chronological order of the parts of the predication that each verb is associated with. In instrumental 'take' SVCs, the verb 'take' occurs before the main verb in linear order because the transfer of possession it represents precedes the activity of the main verb chronologically. An objection to this view is that when the activities associated with each verb are simultaneous, verb order often remains fixed, despite the lack of temporal sequence (Baker 1989:536). For example, instrumental SVCs that employ the verb 'use' (instead of 'take') to introduce the instrument argument, show two possible word orders. In some languages, the 'use' verb occurs first, as in example 3. In other languages, 'use' occurs second, as in example 4. Neither word order violates temporal iconicity, since the activities are simultaneous (Bowden 2001:313). However, temporal iconicity does not explain why alternating word order in a single language has not been reported. The answer to this objection is that temporal iconicity is not a synchronic constraint on SVCs, but part of a diachronic explanation for why anti-iconic verb orders do not become grammaticalized (Good 2003:437, 444).

Thai (Filbeck 1975:120)

(3)   sùk   cháy   phráa khôon tônmáy
    Sook   use   machete   cut   tree
    Sook chopped down the tree with a machete.
    Taba (Malayo-Polynesia) (Bowden 2001:299-300)

(4)   n=pun bobay   n=pake sandal
    3SG=kill   mosquito   3SG=use   thong
    He killed the mosquito with a thong.

    The same data disprove the competing explanation of verb order in instrumental SVCs. Baker (1989) and Carstens (2002) argue that the verb order patterns should be explained by appealing to thematic roles. Their approach predicts that, in an instrumental SVC, the verb assigning the instrumental role will always follow the instrument argument. Data of 'use' instrumental SVCs from several Malayo-Polynesian languages (including example 4) falsify the prediction of the thematic hierarchy analysis of instrumental SVCs. The 'use' verb and its argument (the instrument) follow the main verb. Verb order in instrumental SVCs cannot be explained by appealing to a constraint on the linear order of arguments with certain thematic roles.

References

Baker, Mark (1989). Object sharing and projection in serial verb constructions. Linguistic Inquiry, 20(4):513–553.

Bowden, John (2001). Taba: description of a South Halmahera language. Pacific Linguistics.

Carstens, Vicki (2002). Antisymmetry and word order in serial constructions. Language, 78(1):3–50.

Durie, Mark (1997). Grammatical structures in verb serialization. In Alsina, Alex, Bresnan, Joan, and Sells, Peter, editors, Complex predicates, pages 289–354. CSLI Publications, Stanford.

Filbeck, David (1975). A grammar of verb serialization in Thai. In Harris, JG and Chamberlain, JR, editors, Studies in Tai linguistics in honor of William J. Gedney, pages 112–129.

Good, Jeffrey (2003). Strong linearity: Three case studies towards a theory of morphosyntactic templatic constructions. PhD thesis, University of California, Berkeley.

Jacob, June A and Grimes, Charles E (2011). Aspect and directionality in Kupang Malay serial verb constructions: Calquing on the grammars of substrate languages. Creoles, their substrates, and language typology, pages 337–366.

Li, Yafei (1993). Structural head and aspectuality. Language, 69(3):480–504.

Lord, Carol (1993). Historical change in serial verb constructions, volume 26 of Typological studies in language. John Benjamins, Amsterdam/Philadelphia.

Muysken, Pieter (1988). Parameters for serial verbs. In Manfredi, Victor, editor, Niger-Congo syntax and semantics 1, pages 65–75. Boston University African Studies Center, Boston.

Muysken, Pieter and Veenstra, Tonjes (1994). Serial verbs. In Arends, Jacques, Muysken, Pieter, and Smith, Norcal, editors, Pidgins and Creoles: An introduction, pages 289–302. John Benjamins.

Nishiyama, Kunio (1998). V-V compounds as serialization. Journal of East Asian Linguistics, 7(3):175–217.

Paauw, Scott H (2008). The Malay contact varieties of eastern Indonesia: A typological comparison. PhD thesis, State University of New York at Buffalo.

Sebba, Mark (1987). The syntax of serial verbs: An investigation into serialisation in Sranan and other languages. J. Benjamins, Amsterdam; Philadelphia.

Sneddon, James (2006). Colloquial Jakaratan Indonesian. Pacific Linguistics.

Tai, James H.-Y. (1985). Temporal sequence and Chinese word order. In Haiman, John, editor, Iconicity in Syntax: Proceedings of a Symposium on Iconicity in Syntax, Stanford, June 24-6, 1983, pages 49–72. John Benjamins.

Williamson, Kay (1965). A grammar of the Kolokuma dialect of Ịjọ. Number 2 in West African Language Monographs. Cambridge University Press.

The future and the prospective within a tense-aspect system: The case of Andi

Timur Maisak

(Institute of Linguistics, Russian Academy of Sciences)

The label 'prospective' (or 'proximative') is typically applied to those verbal forms which describe "the already present seeds of some future situation", as Comrie (1976: 65) puts it. Prospective belongs to the aspectual rather than the temporal domain, as it is usually compatible at least with both the present and the past time reference (e.g. 'I'm gonna do this' vs. 'I was gonna do this'). Among the diachronic sources of prospective forms, constructions with motion verbs ('go to', 'come to') and volitional verbs ('want', 'love') have been identified as the most frequent. Prospective can be regarded as diachronically unstable category, which gradually turns into future, being one of the most important diachronic sources for the latter. Still, it happens infrequently that prospective coexists with a more grammaticalized future within one and the same tense-aspect system, and there can be more than one prospective construction in a language.

The tense-aspect system of the Andi language (Avar-Andic branch of Nakh-Daghestanian family, Russia) belongs to the latter type, as the future-prospective domain of this language includes both a

dedicated future in *-dja* (1) with a very general future meaning, and two prospectives, one in *-dulq* (2) and another one in *-duʁojd* (3).

(1)   Future tense in *-dja*
        *hege-b   hege-ʟ'ol   b-ik'-or,   šu-b   **b-ik'u-dja***
        this-n   this-advn-be-cond   good-n   n-be-fut
        'If it happens like this, it will be good.'

(2)   Prospective in *-lq*
        *anzi   **reʟ-du-lq***
        snow   rain-inf-prosp
        '<Given the mist and the clouds, it seems> it's gonna snow.'

(3)   Prospective (Intentional) in *-ʁojd*
        *iš:i-d   ɬudi   **ɢarol-lu-ʁojd***
        we.excl-erg   firewood   chop-inf-prosp
        'We're gonna chop firewood.'

Both prospectives are derived from the infinitive in *-du*, whereas the future suffix *-dja* is identical to the present participle marker. Among the two prospective markers, *-ʁojd* has a clear source, as the same morpheme is used as a quotative enclitic (4). As for *-lq*, it is most likely that it contains the locative case marker *-q* which in the Andic languages is associated with the meaning 'near'.

(4)   *-ʁojd* as a quotative enclitic
        *ali-l'o   ruʟ-o,   ho‹w›a   w-uɢo-b□**ʁojd***
        Ali-sup.lat   say-imphere<m>   m-come-imp=quot
        'Tell Ali to come here (lit. Tell Ali, "Come here!").'

Functionally, the two prospectives are not identical: while the form in *-lq* is judged as a more semantically neutral, the form in *-ʁojd* preferably describes controlled situations with a human agent. Thus, the form in *-ʁojd* should be qualified as a still lexically restricted intentional (gradually moving towards the prospective), rather than a 'standard prospective' in Kozlov's (2017) typology.

Both forms have present tense reference when they are used on their own, but they can be also combined with the auxiliary verb 'be, become' in various tense and aspect forms. With the auxiliary in the perfective past, the meaning expressed by the construction is that of the intentional/prospective in the past, e.g. 'I was gonna tell you <but I changed my mind>'. In this respect, the prospectives behave differently from the future in *-dja* which can also combine with the past auxiliary, but expresses in this case the past habitual ('used to do') or the counterfactual meaning ('would have done'). Thus, the two Andi prospectives remain aspectual grams par excellence, while for the future one can argue for a diachronic shift from an aspectual (imperfective) to a purely temporal value.

The present study is based on the author's fieldwork on the Rikvani dialect of Andi, and will present both the typologically-oriented description of the future-prospective domain of its tense-aspect system, and the comparison of prospective-like structures in other Avar-Andic languages, which helps to identify the source patterns of prospective grams and their relative age.

References

Comrie, Bernard. 1976. *Aspect: An introduction to verbal aspect and related problems.* Cambridge: Cambridge University Press.

Kozlov, Aleksey A. 2017. *Prospektiv: semantika i tipologija* {Prospective: semantics and typology}. MA thesis, Lomonosov Moscow State University.

Nominalizations and alignment: Revisiting nominalization patterns in ergative languages

Andrej Malchukov

(University of Mainz)

Typological literature on nominalizations (Comrie 1976; Koptjevskaja-Tamm 1993; Malchukov 2004) revealed certain skewing between the observed syntactic types of nominalizations (double possessive, possessive-accusative, ergative-possessive, sentential) with respect to the attested alignment types. In particular, a well-known observation is that ergative-possessive type is present also in many accusative languages (cf. *the winning of the race by my horse*). This skewing, which attracted a lot of attention in the literature (including generative literature; Alexiadou 2001), has been attributed to the ergative **Bias** in nominalization, which might override **Harmony** preferences in alignment (Malchukov 2014). Bias constraints refer here to construction-specific preferences, while Harmony constraints embody analogical pressure from coding, saying in effect that identically coded arguments show identical syntactic behavior (in particular, w.r.t. argument genitivization). Against this background, it can be expected that ergative languages would show an overwhelming preference for the ergative-possessive pattern, where the effects of ergative Bias and Harmony constraints converge. However, this prediction is not supported by the data, which shows instead that ergative languages are more variegated with respect to alignment patterns. Indeed, while some of the ergative languages (like Niuean or Eskimo) show an ergative-possessive pattern (converting S/O arguments to the possessor), other languages (like Kashmiri or Panjabi) use a possessive-absolutive pattern, and still other (Basque, Daghestanian languages) preserve a sentential pattern. This raises a question what accounts for this variation in nominalization patterns in ergative languages. It will be shown that preferences for different nominalization patterns correspond to different subtypes of ergative languages. In particular, those languages which display **syntactic ergativity** are more likely to prefer the ergative-possessive pattern treating S and P arguments alike; this manifests itself in possessive coding of S/P arguments while A surfaces as an oblique, or else is prohibited altogether (indeed Eskimo takes recourse to antipassivization to genitivize an A-argument). By contrast, **morphologically ergative** languages (such as Kashmiri), are more likely to show a possessive-absolutive pattern which would correspond to the possessive-accusative pattern in accusative languages (those languages which like Kashmiri are split-ergative in fact allow the possessive-accusative pattern in the imperfective domain). Finally, those languages which preserve a sentential pattern in nominalizations (Basque, Daghestanian languages) are **semantically ergative**, that is show properties of role domination and downplay subject/object asymmetries elsewhere in syntax (cf. Bossong 1984 on Basque, Kibrik 1997 on Daghestanian languages). This observation, if confirmed on a larger sample, suggests that genitivization generally targets the most topical argument, an observation supported by other data as well (cf. Koptjevskaja-Tamm 1993 on preferential genitivization of pronominal arguments). On this view, variation in nominalization patterns in ergative languages corresponds to the partition of ergative languages into different groups depending on which argument (A or P) counts as more topical in discourse (see, e.g., Van Valin 1981; Manning 1996; Kibrik 1997; Lazard 2015 on the typology of ergative languages and issues of syntactic ergativity).

References

Alexiadou, A. 2001. *Functional Structure in Nominals: Nominalization, and Ergativity*. Amsterdam: John Benjamins.

Bossong, G. 1984. Ergativity in Basque. *Linguistics* 22: 331-392

Comrie, B. 1976. The syntax of action nominals: a cross-linguistic study. *Lingua* 40: 177-201.

Kibrik, A. E. 1997. Beyond subject and object: toward a comprehensive relational typology. *Linguistic Typology* 1-3: 279-346.

Koptjevskaja-Tamm, M. 1993. *Nominalizations*. London: Routledge

Lazard, G. 2015. Two possible universals: The Major Biactant Construction; the twofold notion of subject *Linguistic Typology*, 19(1) 111-130.

Malchukov, A. 2004. *Nominalization/verbalization: constraining typology of transcategorial operations*. Muenchen: Lincom.

Malchukov, A. 2014. Resolving alignment conflicts: a competing motivations approach. *Competing motivations in grammar and cognition,* ed. by B. MacWhinney, A. Malchukov & E. Moravcsik, 17-42. Oxford: Oxford University Press.

Manning, C. D. 1996. *Ergativity: argument structure and grammatical relations*. Stanford: CSLI.

Van Valin, R.D. Jr. 1981. Grammatical relations in ergative languages. *Studies in Language* 5.3: 361–394.

Boundary-crossing motion events in Czech source and target texts: Evidence from a parallel corpus

Michaela Martinková & Markéta Janebová

(Palacký University, Olomouc, Czech Republic)

It has often been emphasized that in Contrastive linguistics, parallel corpora have to be used with care: "translations tend to retain traces of the source language … or display other general characteristics of translated texts" (Altenberg and Granger 2002, 9). Our pilot study on the encoding of boundary-crossing motion events in Czech turns what has often been considered a disadvantage into advantage, when it exploits what Chesterman (2003) calls T-universals, i.e. "claims about the way translators use the target language" (318), namely quantitative deviations from the target language norm (Altenberg and Granger 2002, 40). We use Czech, a satellite-framed language (Path is encoded on the satellite, which is a bound morpheme), to contrast English, a satellite-framed language (satellite is a free morpheme), with Spanish, a verb-framed language (Path is encoded on the verbal root) in their ways of expressing boundary-crossing events.

Tokens of verbs with the satellite *v-* [in] denoting boundary crossing were downloaded from three subcorpora of Czech fiction (cca 9,5 million tokens each), created within the parallel corpus *InterCorp* (Rosen and Vavřín 2015): 1. Czech source texts, 2. Czech translations from English, and 3. Czech translations from Spanish. Our results show a wider range of verb types and a higher number of tokens in Czech translations from English than from Spanish: while some verbs with stems coding a manner of motion were only found in translations from English (e.g. *vbíhat* [run-in$_{IMPERF}$], *všourat se / vploužit se* [shuffle in], *vcupitat* [titptoe in], *vhopkat* [hop in], *vevrávorat* [stagger in], *vcouvat* [back in]), translations from Spanish had a higher or a significantly higher number of tokens of verbs with a low degree of descriptivity (Boas 2006, Snell-Hornby 1987) such as *vejít / vcházet* [walk-in$_{PERF/IMPERF}$], *vkročit* [step-in$_{PERF}$], *vstoupit / vstupovat* [step-in$_{PERF/IMPERF}$] than translations from English. This happens in spite of the fact that "the information about the Manner of motion can be spontaneously

added (Ibarretxe-Antuñano and Filipović 2013, 270): *El barco entró en la laguna* [the boat entered the lagoon] was translated as *Loď vplula do laguny* [the boat floated into the lagoon]. Our findings thus bring yet another kind of evidence about the typological difference between English and Spanish (Talmy 2000). No significant differences have so far been revealed between Czech translations from English and Czech source texts to confirm a hypothesis that the fact that satellite is a free morpheme in English but bound in Czech might lead to restrictions (cf. Filipović 2007 about Serbo-Croatian); a more fine-grained analysis of the co-event types encoded by the Czech verb stems (using classification from Slobin et al. [2014] and following Talmy [forthcoming]) will need to be carried out on a monolingual corpus of Czech. The aim of the whole project is not only to contribute to the on-going investigation of the typological difference, but above all to contrast Czech (not yet systematically studied with respect to this typological difference) with other satellite-framed languages (cf. also Ibarretxe-Antuñano 2004, Hijazo-Gascón and Ibarretxe-Antuñano 2013, Filipović 2007, Slobin et al. 2014).

References

Altenberg, Bengt, and Sylvianne Granger. 2002. "Recent trends in cross-linguistic lexical studies." In *Lexis in Contrast: Corpus-based Approaches*, edited by Bengt Altenberg and Sylvianne Granger, 3–48. Amsterdam: John Benjamins.

Boas, Hans. 2006. "A frame-semantic approach to identifying syntactically relevant

elements of meaning." In *Contrastive Studies and Valency: Studies in Honor of Hans Ulrich Boas,* edited by Petra C. Steiner, Hans C. Boas and Stefan J. Schierholz, 119-149. Frankurt am Main: Peter Lang.

Chesterman, Andrew. 2003. "Contrastive Textlinguistics and Translation Universals." In *Contrastive analysis in language. Identifying linguistic units of comparison*, edited by Dominique Willems, Bart Defrancq, Timothy Colleman, and Dirk Noël, 213–229. New York: Palgrave Macmillan.

Filipović, Luna. 2007. *Talking about Motion A crosslinguistic investigation of lexicalization patterns.* Amsterdam/Philadelphia: John Benjamins.

Hijazo-Gascón, Alberto, and Iraide Ibarretxe-Antuñano. 2013. "Same family, different paths. Intratypological differences in three Romance languages." In *Variation and Change in the Encoding of Motion Events*, edited by Juliana Goschler and Anatol Stefanowitsch, 39–54. John Benjamins.

Křen, Michal et al. 2016. "SYN2015: Representative Corpus of Contemporary Written Czech." In *Proceedings of the Tenth International Conference on Language Resources and Evaluation (LREC'16)*, 2522–2528. Portorož: ELRA.

Rosen, Alexandr, and Martin Vavřín. 2015. *Korpus InterCorp, verze 8 z 4. 6. 2015.* Ústav Českého národního korpusu FF UK. Praha. Accessed January 5, 2016. http://www.korpus.cz.

Slobin, Dan I., Iraide Ibarretxe-Antuñano, Anetta Kopecka, and Asifa Majid. 2014. "Manners of human gait: A crosslinguistic event-naming study." *Cognitive Linguistics* 25(4): 701–741.

Snell-Hornby, Mary. 1983. *Verb descriptivity in German and English.* Heidelberg: Carl Winter.

Ibarretxe-Antuñano, Iraide. 2004. "Language typologies in our language use: the case of Basque motion events in adult oral narratives." *Cognitive Linguistics* 15(3): 317−349.

Ibarretxe-Antuñano, Iraide and Luna Filipović. 2013. "Lexicalization patterns and translation." In: *Cognitive Linguistics and Translation: Advances in Some Theoretical Models and Applications*, edited by Ana Rojo and Iraide Ibarretxe-Antuñano, 253−283. Berlin/New York: Mouton de Gruyter.

Talmy, Leonard. 2000. "Lexicalization patterns." In *Toward a Cognitive Semantics. Volume II.* Cambridge, MA: MIT Press.

Talmy, Leonard. Forthcoming. "Foreword: Past, present, and future of motion research." In *Motion and space across languages and applications,* edited by Iraide Ibarretxe-Antuñano. John Benjamins.

Possessors, recipients, goals and sources. The preposition *si* in three West Oceanic languages of Papua New Guinea

Lidia Federica Mazzitelli

In my paper, I analyse the functions of the preposition *si* in Kara, Nalik and Lakuramau (West Oceanic, Austronesian), three closely related and relatively endangered languages spoken in the New Ireland Province of Papua New Guinea. The data presented below derive from my fieldwork notes, taken in 2016, for Lakuramau (still undescribed, considered a transitional dialect between Nalik and Kara; Volker 1994: 3), from Volker (1994) and my fieldwork notes for Nalik, and from Dryer (2013) for Kara.

Si derives from the Proto-Oceanic prepositional verb **suri-* 'follow', used to encode goals, and reanalysed in Kara, Nalik and Lakuramau as a marker of alienable possession (Ross 1988: 291) (1):

(1) Nalik
A   nur   su-num
art coconut *si*-2sg
'Your coconut'

Si has different functions in the three languages. In Kara, it can only encode possessors and, if accompanied by the preposition *xe* 'towards', human goals. In Lakuramau, *si* encodes possessors, human goals and benefactives (even if the main benefactive preposition is *ka*). In Nalik, *si* encodes human sources, human locations, human goals, possessors, benefactives and addressees/recipients. The latter function marks a significant difference with the other languages. In Kara and Lakuramau the usual way of encoding recipients and addressees is to have them coded as direct objects, while the theme is represented as an oblique (2).

(2) Lakuramau
Ne da rabai no van   a   ni
1sg fut give   2sg non-term art coconut
'I will give you the coconut'

In Nalik, the same pattern as in (2) is found too, but it is rare; more usually, recipients and addressees are encoded as obliques governed by *si* (3):

(3) Nalik
Ga na lis a   nur   si-na
1sg fut give art coconut *si*-3sg
'I will give him a coconut'

This pattern is unknown in Kara and, apparently, very restricted in Lakuramau (only as argument of *fiai* 'ask': *ne fiai **sim*** 'I ask you').

In other languages of New Ireland, closely related to Nalik, Kara and Lakuramau, cognates of *si* are used to express recipients/adressees and human goals (Tigak; Beaumont 1979), or possessors and recipient/addressees (Lavongai;1988). Only in Nalik, however, *si* has extended its functions to include not only all functions typically associated with dative-like grams but also functions of source and location (provided the referent is human).

I believe, that the Nalik behaviour may be explained as an overextension of the core function of *si*, namely, to encode roles that have typically human referents - possessors, recipient, addressee and benefactive: *si* has been then extened to also mark human goals, sources and locations. The spread of the ditransitive pattern with a *si*-indirect object (3) is a further sign of the Nalik tendency to give typically human arguments a special encoding, instead of treating them as typical inanimate patients of transitives, as in the Kara- Lakuramau pattern in (2).

References

Beaumont, Clive. 1979. *The Tigak language of New Ireland*. Pacific Linguistics B-58. Canberra: The Australian National University.

Dryer, Matthew S. 2013. *A Grammatical Description of Kara-Lemakot*. Asia-Pacific Linguistics. Australian National University.

Ross, Malcom. 1988. *Proto Oceanic and the Austronesian languages of Western Melanesia.* Canberra: Pacific Linguistics C-98.

Stamm, Joseph S.C. 1988. "A Grammar of the Lavongai Language". In Beaumont, Clive (ed) *Lavongai materials*. Pacific Linguistics D-82. Canberra: The Australian National University, 1-46.

Volker, Craig Alan. 1994. *The Nalik language of New Ireland, Papua New Guinea*. New York/Bern/Berlin: Peter Lang.

Social change and diachronic variation in written language: Interlanguage, native language or something else?

Helle Metslang & Külli Habicht
(University of Tartu)

How does a written language take shape when its creators and developers are not native speakers? What becomes of this written language when it is taken over by native-speaker language developers? These questions arise in relation to written Estonian, which was originally developed by native German speakers and has only been in the hands of native Estonian-speaking scholars for the past two hundred years or so.

In the 13th-19th century Germans formed the upper class in Estonia. The form of Estonian developed by the German clergymen was the higher-status variety of the language (H-variety, see e.g. Rutten 2016), while the L1 of Estonians was of lower status (the L-variety). In written texts, only the H-variety is represented; assumptions can be made about the L-variety using historical-linguistic methods.

In the 19th century, the Estonian national intelligentsia began to emerge, and the usage and development of the written Estonian language was in the hands of Estonians who had grown up in a German-speaking cultural space. The H-variety gradually approached the language form used by L1 Estonian speakers.

The research question is: does 17th-19th century written Estonian show features characteristic of interlanguage (cf. Selinker 1992), and what are the dynamics of those features during that time period? What does this tell us about the persistence/changeability of written language phenomena?
Our hypotheses are:

1) The written language of the 17th–18th century can be regarded as a type of collective interlanguage (like the written languages developed by Europeans in other parts of the world, see Makoni, Pennycook 2007), where the interlanguage qualities decrease in the 18th century as language knowledge improves and usage expands;
2) The written language of the 19th century, a transition period, can be regarded as an amalgam (L3), where L1 speakers partially adopt the form of the language used by L2 speakers (Thomason 2001).

We examine the variation in usage of three groups of morphosyntactic phenomena:
1) Object case alternation, typical of Estonian and foreign to German, which allows for the expression of aspectual meanings (*Mart ostis auto* 'Mart bought a *car* (GEN)' – *Mart ostis autot* 'Mart was buying a *car* (PART)').
 2) The Estonian future construction with the verb *saama* 'become', introduced by forced grammaticalization on the German example (Metslang 2016, cf. Nau 1995) (*Elu saab olema raske* 'Life *will be* difficult').
3) Verb chains that appear in both languages, but are used to varying degrees (*Ma võin tulla* 'I can come').

The study is usage-based and belongs to the field of historical sociolinguistics. The research draws on material from the Corpus of Old Written Estonian of the University of Tartu and the Estonian interlanguage corpora of the University of Tartu and Tallinn University.
The initial results support the hypotheses. In the 19th-century language, the qualitative interlanguage-like features disappear (group 1 phenomena), while the quantitative features are preserved and even grow in prominence (as shown by the frequency of group 2 and group 3 phenomena), which indicates that the L3 has functioned as the H-variety of Estonian.

References

Makoni, Sinfree, Alastair Pennycook 2007. Disinventing and Reconstituting Languages. − M. Sinfree, A. Pennycook (eds.), Disinventing and Reconstituting Languages. (Bilingual Education and Bilingualism.) Clevedon/Buffalo/Toronto: Multilingual Matters LTD, 1−41.

Metslang, Helle 2016. Can a language be forced? The case of Estonian. – H. Cuyckens, L. Ghesquière, D. Van Olmen (eds), Aspects of Grammaticalization (Inter)Subjectification and Directionality). (Trends in Linguistics. Studies and Monographs 305.) Berlin: De Gruyter, 281−309.

Nau, Nicole 1995. Möglichkeiten und Mechanismen kontaktbewegten Sprachwandels unter besonderer Berücksichtigung des Finnischen. München: Lincom Europa.

Rutten, Gijsbert 2016. Diaglossia, individual variation and the limits of standardization: Evidence from Dutch. – Russi, Cinzia 2016, Current Trends in Historical Sociolinguistics. De Gruyter Open, 194–218. https://www.degruyter.com/viewbooktoc/product/475491

Selinker, Larry 1992. Rediscovering Interlanguage. A Pearson Education Print on Demand Edition. London, New York: Longman.

Thomason, Sarah Grey 2001. Language Contact. Edinburgh University Press.

On the constructional status of English enumerating there-clauses and there-clefts

Ngum Meyuhnsi Njende & Kristin Davidse

This paper seeks to clarify the debated status of two related English constructions: enumerating *there*-clauses (1) and enumerating *there*-clefts (2).

(1) Who doesn't have some stubborn bills hanging around…? There's the mortgage, the phone, the winter power bill and the credit card to start with. (WB)
(2) Put something up? There's only the council can do that. (LDC)

Enumerating existentials (henceforth EEs) were proposed to be distinct from non-enumerating existentials (non-EEs) in terms of restrictions on the determiner structure of the postverbal NPs. In non-EEs, this NP was claimed to be obligatorily indefinite (Milsark 1977), whereas in EEs it is typically definite, e.g. (1). This distinction was challenged in favour of one single existential construction, in which postverbal NPs are said to always in some sense introduce new referents (Ward & Birner 1995): in 'enumerating' examples (1), the point that these items are listed is new, while formally definite Existent NPs as in (3) pragmatically refer to a discourse-new instance of a given type.

(3) This afternoon, there will be the usual Christmas concert. (WB)

Against this, we argue for the semantic and grammatical distinctness of EEs from non-EEs. The crucial distinction is that EEs enumerate one or more instances of a higher-order type that has to be retrieved from the preceding text, e.g. *stubborn bills hanging around* (1). By contrast, non-EEs are simply concerned with the existence of instances of the type specifications predicated by the postverbal NP itself, e.g. *Christmas concert* (3).

There-clefts were identified in e.g. Lambrecht (2001), Author 2 (1999a,b, 2016), but are not recognized in mainstream grammars. Huddleston & Pullum (2002:1396), who take cleft – as opposed to restrictive – relative clauses as criterial to cleft constructions, call the case for a cleft analysis "weaker" in examples like (2). Against this, we argue that in (2), *can do that* is a cleft relative clause (shown also by its zero subject marking), which forms a constituent distinct from its antecedent, *the council*. The cleft relative clause predicates the higher-order type, 'x *can do that*', that the postverbal NP designates an instance of. This contrasts with enumerating *there*-clauses like (4), where *the martyrs who had died in all the battles against the British* forms one unit, and lists instances of the higher-order type *graves* in the preceding text.

(4) This entire country...was brimful with graves. There were the martyrs who had died in all the battles against the British (WB)

In qualitative-quantitative corpus study (extractions on [tag="EX"][lemma="be"][tag="NP|PP|DET"] from BrSpoken, Times, in Wordbanks*Online* (WB)), we verify and develop the posited similarities between the two enumerating *there*-constructions. We quantify the occurrence in postverbal NPs of
      (i)   simple and coordinated NPs;
      (ii)   referring expressions: proper names, pronouns, definite and indefinite NPs;

and functionally interpret these with a view to listing semantics. For both constructions, we inventory contextual clues of enumeration, e.g. *to start with* in (1), and we assess whether the higher-order type is textually evoked (either in the preceding text or in the cleft relative clause) or is inferable (from the preceding text) (Kaltenböck 2004). Enumerative existentials for which a cleft relative clause can be inferred from the preceding text can be viewed as truncated *there*-clefts (in analogy with truncated *it*-clefts, Declerck 1988, Mikkelsen 2005), adding further support for the posited kinship between the two enumerative constructions.

References

Declerck, Renaat. 1988. *Studies on Copular Sentences, Clefts and Pseudo-clefts*. Leuven: Leuven University Press.

Huddleston, Rodney & Geoffrey Pullum. 2002. *The Cambridge Grammar of the English Language.* Cambridge: CUP.

Kaltenböck, Gunther. 2004. It-*extraposition and Non-extraposition in English: a Study of Syntax in Spoken and Written Texts*. Wien: Braumüller.

Lambrecht, Knud. 2001. A framework for the analysis of cleft constructions. *Linguistics* 39: 463-516.

Mikkelsen, Line. 2005. *Copular Clauses: Specification, Predication and Equation*. Amsterdam: John Benjamins.

Milsark, Gary. 1977. Toward an explanation of certain peculiarities of the existential construction in English. *Linguistic Analysis* 3: 1-29.

Ward, Gregory & Betty Birner.1995. Definiteness and the English existential. *Language* 71: 722-742.

Asymmetry in path coding: Creole data support a universal trend

Susanne Maria Michaelis

(Leipzig University & Max Planck Institute for the Science of Human History, Jena)

It seems to be a robust empirical observation that in path constructions, motion-from ('I come **from** Berlin') is coded with more (or at least the same amount of) linguistic material than motion-to ('I go **to** Berlin'). Since corpus data show that motion-to constructions are also much more frequent in discourse than motion-from constructions, this universal can be subsumed under the grammatical form–frequency correspondence principle (Haspelmath et al. 2014, and related work). In other words, the fact that motion-from constructions are longer can be seen as a functional response to the need to highlight rarer, less predictable constructions.

In this talk, I will show that data from high-contact languages (pidgins and creoles) support this universal claim (see Michaelis & APiCS Consortium 2013a, 2013b, 2013c), as in examples (1)-(2).

(1) Vincentian Creole (Prescod 2013)

  a. *Mi gaan **a** maakit.*
     1sg gone loc market
     'I'm off to the market.'

  b. *Mi bin a   kuhm **fram** maakit.*
     1sg pst prog come from market
     'I was coming from the market.'

(2) Sri Lanka Portuguese (Smith 2013)

    a.   *eev jaa-andaa maaket*
          1sg pst-go   market
          'I went to the market.'

    b.   *eli   kaaza **impa** jaa-vii   teem*
          3sg.m house from pst-come prs.prf
          'He has come from home.'

In both pairs of examples, the (b)-examples (motion-from) are coded with more segmental material (*fram* and *impa*) than the (a)-examples (motion-to) (*a* and zero-marked locative).

Interestingly, a certain number of creole languages show identical marking of motion-to and motion-from constructions, a case which does not contradict the implicational universal cited above. One example is shown in (3).

(3) Krio (Finney 2013)

    a.   *a   di   go   **na**   di   makit*
          1sg   prog go   loc   art   market
          'I am going to the market.'

    b.   *A   jɛs   kɔmɔt **na**   di   makit*
          1sg   just   come loc   art   market
          'I just came back ☐om the market.'

But many other creoles have different constructions for motion-to and motion-from. This can be achieved in various ways. Motion-to constructions often show zero-marking whereas motion-from constructions tend to have an overt marker (see (2)). Some languages have overt motion-to markers, but the corresponding motion-from markers are at least equally long or longer (as in (1)).

I also want to examine the diverse diachronic pathways which lead to the innovative creole patterns. Longer motion-from constructions in creoles have two main sources, adpositions (as in examples 1 and 2) and serial verb constructions, as in (4).

(4) Principense (Maurer 2013)

    a.   *N   we fya*.
          1sg   go market
          'I went to the market.'

    b.   *N   vika **fo**   fya*.
          1sg   come come.from   market
          'I came from the market.'

Often the creole patterns reflect substrate imitation, either the identical marking of motion-to and motion-from constructions (a widespread phenomenon in Subsaharan Africa, Creissels 2006), or the special marking of motion-from by a serial verb construction (as in West Africa, Creissels 2006) or postpositions (as in South Asia). But regardless of the source patterns, the creole data are in line with the universal tendency of motion-from constructions being longer than motion-to ones.

References

Creissels, Denis. 2006. Encoding the distinction between location, source and direction: a typological study. In: Hickmann, Maya & Stéphane Robert (eds.), *Space in languages*, 19-28, Amsterdam: John Benjamins

Finney, Malcolm Awadajin. 2013. Krio structure dataset. In: Michaelis, Susanne Maria & Maurer, Philippe & Haspelmath, Martin & Huber, Magnus (eds.) *Atlas of Pidgin and Creole Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology.

Haspelmath, Martin, Andreea Calude, Michael Spagnol, Heiko Narrog & Elif Bamyacı. 2014. Coding causal-noncausal verb alternations: A form-frequency correspondence explanation. *Journal of Linguistics* 50(3). 587–625.

Maurer, Philippe. 2013. Principense structure dataset. In: Michaelis, Susanne Maria & Maurer, Philippe & Haspelmath, Martin & Huber, Magnus (eds.) *Atlas of Pidgin and Creole Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology.

Michaelis, Susanne, Philippe Maurer, Martin Haspelmath & Magnus Huber (eds.). 2013. *The atlas of pidgin and creole language structures*. Oxford: Oxford

Michaelis & *APiCS* Consortium 2013a. Going to named places. In: Michaelis et al. (eds.). 2013, 314-7.

Michaelis & *APiCS* Consortium 2013b. Coming from named places. In: Michaelis et al. (eds.). 2013, 318-21.

Michaelis & *APiCS* Consortium 2013c. Motion-to and motion-from. In: Michaelis et al. (eds.). 2013, 322-5.

Prescod, Paula. 2013. Vincentian Creole structure dataset. In: Michaelis, Susanne Maria & Maurer, Philippe & Haspelmath, Martin & Huber, Magnus (eds.) *Atlas of Pidgin and Creole Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology.

Smith, Ian R. 2013. Sri Lanka Portuguese structure dataset. In: Michaelis, Susanne Maria & Maurer, Philippe & Haspelmath, Martin & Huber, Magnus (eds.) *Atlas of Pidgin and Creole Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology.

Vagueness and ambiguity in pseudo-passive reflexive constructions: A transition from decausative to passive

Liljana Mitkovska & Eleni Bužarovska
(FON University, Skopje & University Ss Cyril and Methodius, Skopje)

It is common for languages crosslinguistically to code a range of diathetic constructions with the same verb form (Kazenin 2001, Kemmer 1993, Geniušienė 1987). Macedonian, as well as most Slavic languages, employs the reflexive *se*-construction for that purpose. Since one and the same verb can be used in several types of diathesis, such reflexive verb constructions are polysemous, creating ambiguity and vagueness along the diathesis continuum. In this presentation we look at reflexive constructions which code a number of non-factive situations in which the agent of the predication coded in the main verb is suppressed to some degree. They display a gradience of modal interpretations: potential (1), normative (2), generalising (3).

(1) *Svilata teško* <u>*se održuva*.</u> Lit. 'Silk maintains with difficulty.'
    silk-DEF   difficult-ADV REFL maintain
(2) *Ne* <u>*se igra*</u> *so ogan.* 'You shouldn't play with fire.'

<pre>
          not REFL playwith   fire
  (3) *Imeto*   *ne*   *se preveduva*. 'The name is not translated.'
      name-DEF   not   REFL translate
</pre>

This type of constructions is known in the literature under various names, such as gnomic, quasi-passive, mediopassive or middle, among others. Here they are referred to as "pseudo-passive reflexive constructions'. We claim that the difference between the three types of meaning depends on the degree of implication of the agent in the construction: it is only indirectly evoked in the potential, its presence can be felt in the normative, and a non-referring agent is present in the generalising constructions. Consequently, overlapping between the subclasses is common. For example (3) can be also interpreted as potential (it is difficult to translate the name) or as normative (it is against the rules to translate names).

We analyse a body of examples collected from literature and journalistic sources to investigate the possible overlapping contexts and types of clues that could indicate the intended meaning in order to determine the relationship between the pseudo-passive constructions and the neighbouring decausative and passive reflexive constructions. It seems that process-oriented adverbials (e.g. *easily*) enforce the potential reading, agent-oriented adverbials (e.g. *carefully*) trigger the normative, while circumstantial adverbials contribute to the generalising interpretation.

Following the claims posed by the proponents of grammaticalization (e.g. Traugott & Trousdale 2010) it is assumed that gradual synchronic structures reflect micro-stages on the grammaticalization cline, thus they could reveal the mechanisms of reanalysis and extension via analogy. We believe that vagueness and ambiguity reflect the conceptual links among the neighbouring sub-types and that they could have been a source of semantic and structural change (Traugott and Dasher 2002) leading to reanalysis of decausatives, which lack an agent referent, to passives, in which the agent referent is present in the argument structure, but is syntactically demoted.

References

Geniušienė, Emma (1987) *The Typology of Reflexives*. Berlin, New York, Amsterdam: Mouton de Gruyter

Kazenin, Konstantin I. (2001) Verbal reflexives and the middle voice. In Haspelmath, Martin (ed.), *Language typology and language universals,* vol. 2: An International Handbook, 913-927. Berlin: Mouton de Gruyter.

Kemmer, Suzanne (1993) *The Middle Voice*. Amsterdam: John Benjamins.

Traugott, Elizabeth Closs & Richard B. Dasher (2002) *Regularity in semantic change* (Cambridge Studies in Linguistics 96). Cambridge: Cambridge University Press.

Traugott, Elizabeth Closs and Graeme Trousdale (2010) Gradience, gradualness and grammaticalization: How do they intersect? In: E. C. Traugott and G. Trousdale, *Gradience, Gradualness and Grammaticalization*, 19-44. Amsterdam / Philadelphia: John Benjamins Publishing Company.

Scalarity, degree and epistemicity : A comparison between German and Norwegian discourse particles

Pierre-Yves Modicom

(U. Bordeaux-Montaigne & U. Paris-Sorbonne)

In Germanic langages, Modal particles (MPs) are defined as non-flectible deaccented forms that do not contribute to the propositional meaning of their host clause, but rather to the felicity conditions of the utterance ; though there is no consensus on their precise meaning, they operate on commitment and interact with illocutionary force, mostly in an intersubjective fashion. All of them are related to full words with an other meaning, so that MPs are usually seen as cases of grammaticalisation (see Abraham 1991, Diewald 2013, Schoonjans 2013). MPs of Scandinavian languages have been far less extensively studied than their German counterparts. The contribution is devoted to alleged MP uses of German noch ('still') and MP uses of *nok/nog* in Scandinavian. All mainland Scandinavian languages exhibit a MP *nog/nok* roughly equivalent to German *wohl* : while both are normally restricted to a position after the finite verb in main clauses subject to the V2 constraint characteristic of mainland Germanic, there seems to be a marginal possibility of sentence-initial use ; semantically, both act as semi-evidential markers lowering the threshold of certainty that a proposition must match to be asserted. In line with Scherf (2014), Modicom (2016) has shown that this is definitory for a specific subset of 'subjective' (as opposed to intersubjective) epistemic MPs in Germanic. In all Scandinavian languages, *nog/nok* is also a full word meaning 'enough'. Yet in Norwegian, *nok* can also mean 'still', much like German *noch*.

In German, *noch* ('still') belongs to a small set of aspectual scalar operators, and it is directly opposed to *schon* ('already', s. König 1991 among others). Both have developped non-aspectual, argumentative uses (in the sense of Ducrot 1980). Yet, it seems that only *schon* has developped a use as MP, though Métrich et al. have argued for a marginal MP use of *noch*.

The contribution discusses the limit cases of *noch* seemingly used as an MP. I argue that argumentative, continuation-based semantics (Gutzmann) combine with the source meaning of each MP to determine the possibility of use for MPs in a given illocutionary type. The prediction is that a scalar operator with the meaning of 'still' cannot be used as an MP in assertive contexts. Turning to the counterargument provided by Norwegian *nok*, I undertake a diachronic study : Unlike its Swedish or Danish counterparts, Norwegian *nok* appears to be the merger of rest-Scandinavian *nog/nok* 'enough' and (Low-)German *noch*. This leads to a revision of the grammaticalisation path followed by *nok* and to a final hypothesis on both core-semantic and illocutionary constraints on the reanalysis of functional words in cases of language contact and/or grammaticalisation.

References

Modicom, Pierre-Yves. 2016. *L'énoncé et son double. Recherches sur le marquage de l'altérité énonciative en allemand contemporain.* PhD thesis, U. Paris-Sorbonne.

Abraham, Werner (ed.). 1991. *Discourse Particles. Descriptive and theoretical investigations on the logical, syntactic and pragmatic properties of discourse particles in German.* Amsterdam: John Benjamins.

Diewald, Gabriele. 2013. Same same, but different. Modal particles, discourse markers and the art and purpose of categorization. In Degand, Liesbeth, Bert Cornillie & Paola Pietrandrea (eds.) *Discourse markers and modal particles. Categorization and description.* Amsterdam : Benjamins. 19-45.

Ducrot, Oswald (ed.). 1980. *Les mots du discours.* Paris : Minuit.

Gutzmann, Daniel. 2015. *Use-conditional meaning.* Oxford : OUP.

König, Ekkehard. 1991. *The meaning of focus particles. A comparative perspective.* Routledge.

Métrich, René, Eugene Faucher & Jörn Albrecht. 2009. *Wörterbuch deutscher Partikeln unter Berücksichtigung französischer Äquivalente.* Berlin etc. : De Gruyter.

Scherf, Nathalie. 2014. *Two groups of Swedish modal particles.* Talk at the 36th meeting of the DGFS, workshop 'Syntax and semantics of discourse particles', org. J. Bayer, V. Struckmeier.

Schoonjans, Steven. 2013. Modal particles. Problems in defining a category. In Degand, Liesbeth, Bert Cornillie & Paola Pietrandrea (eds.) *Discourse markers and modal particles. Categorization and description*. Amsterdam : Benjamins. 133-161.

Identificational foci in Hittite marked by *=pat*: semantics and position in the clause

Maria Molina

(Institute of linguistics, Moscow)

Hittite is a dead Indo-European language (II century BC), with second position enclitics. The talk deals with the semantics of foci in Hittite marked by the emphatic enclitic *=pat* (Hoffner, Melchert 2008). This particle is widely accepted to mark focus: (CHD P: 212) and (Hoffner, Melchert 2008) define *=pat* as a non-sentential "clitic particle of specification, limitation, and identity". As to its functions, (Hoffner, Melchert 2008) only generally describe anaphoric, particularizing, restrictive and contrastive uses of *=pat*. Its distribution in the clause is currently believed to be free, with a narrow scope over its host.

However I am aware of no previous corpus research to demonstrate that *=pat* has focusing function at all, not to mention any research of focus semantics in detail or its position in the clause. The talk aims to fill the gap.

The data for the analysis come from the Annotated Corpus of Hittite clauses (*http://hittitecorpus.ru*), which comprises roughly 4000 clauses from the Hittite letters and instructions. This material yielded 70 entries containing *=pat*.

All the cases have been analysed using *focus skeleton* method (first applied to the Hittite material by (Goedegebuure 2014)). The method applies set of focus alternatives analysis to Hittite contexts.

Firstly, the research showed that *=pat* never marks information focus in my data, but consistently marks identificational focus. Semantic analysis revealed only some types of identificational foci with *=pat* as an explicit marker. These are *contrastive* (*expanding/additive*, *rejecting*, *selecting*, *restricting* and *replacing*) foci, *verum* (*confirmation*) and *scalar* foci. When *=pat* clitisizes to a verb, the focus is always verum. Commonly, verbs are information focus in Hittite; but if *=pat* is placed after the verb, it marks an identificational focus.

Secondly, *=pat* can have both narrow and wide scope, and, more importantly, scope over the whole sentence. I claim that if it scopes over a phrase, it clitisizes to the first word of it, thus demonstrating the particle's nature as a second position clitic (see Sideltsev in print). Particularly, constructions "preverb=*pat* + verb" (a) and "preverb + verb=*pat*" (b) demonstrate the following: in (a) focus might be both *verum* and *contrastive*, which depends on the scope of the emphatic particle (preverb/VP); in (b) scope is over the verb only, and it is strictly *verum*.

If *=pat* scopes over the whole sentence (a rare, but unambiguously attested option), it stands in the clause second position. This leads to believe that *=pat* is an ordinary 2P clitic, the same as most enclitics in Hittite, and its distribution is not free.

However, phrases marked by *=pat* are not always at the clauses left edge, as different from prototypical sentential enclitics. Still it is not isolated and finds its closest equivalent in *=ma*, for which see (Sideltsev, Molina 2015). I propose to assess both *=pat* and *=ma* as second position clitics, but as different from prototypical enclitics, sensitive to phases, cf. (Huggard 2015; Sideltsev in print). Then both *=pat* and *=ma* would be in the second position at both CP and vP phases.

References

Hoffner, Melchert 2008 — Hoffner, H. A. Jr., and H. Craig Melchert. A Grammar of the Hittite Language. Vol. 1: A Reference Grammar. Winona Lake: Eisenbrauns, 2008.

CHD P — CHD P. H. Güterbock†, H. Hoffner†, and Th. van den Hout (eds). The Hittite Dictionary of the Oriental Institute of the University of Chicago. The Oriental Institute of the University of Chicago, 1980-.

Goedegebuure 2014 — Goedegebuure, P. The use of demonstratives in Hittite: deixis, reference and focus, StBoT 55, Harrassowitz: Wiesbaden, 2014.

Huggard 2015 — Huggard, M. Wh-words in Hittite. Ph. D. Diss., University of California, 2015.

Sideltsev in print — Sideltsev, A. Hittite Syntax 100 Years Later: The Case of Hittite Indefinite Pronouns, Prague, forthcoming.

Sideltsev, Molina 2015 — Sideltsev, A. and M. Molina. Enclitic -(m)a "but", Clause Architecture and the Prosody of Focus in Hittite, Indogermanische Forschungen 120, p. 209–254.

Conflict resolution in grammatical description

Edith A. Moravcsik

(University of Wisconsin-Milwaukee)

Tense in English is marked on the verb but semantically, it pertains to the entire proposition. Reflecting on this fact, Ray Jackendoff writes:

"Much dispute in modern syntax has been over these sorts of mismatch and how we deal with them. (I don't think most linguists have viewed it this way, though.)" (Jackendoff 2002: 15)

This remark identifies a central challenge in grammatical description: how to resolve conflicts. They may pertain to meaning-form relations as in the example above or they may involve the linear order, the quality, the quantity, and the very presence of structural elements. In the recent literature, considerable attention has been paid to the issue of conflict resolution (e.g. Aissen 2003, MacWhinney et al. (eds.) 2014). This is the topic of the present paper as well.

It is proposed here that conflicts can be resolved in two ways: by eliminating them or by explaining them. Conflicts are **eliminated** if the analyst invokes a conceptual tool that re-casts a conflict as consistent. For example, partonomic (constituent) structure resolves the contradictory nature of a construction, such as *the tall man* being both "many" (three words) and "one" (a single phrase).

This approach involves the re-interpretation of inconsistency as consistency. Alternatively, conflicts may be **explained** by demonstrating that they derive from principles that are in conflict themselves but whose contradictory relationship, is motivated. In this case, inconsistency is acknowledged but it is shown as necessary rather than random. For example, relative clause extraposition – e.g. in *Certain conditions existed that could not have been foreseen*, where the semantic coherence of the head and the relative clause is at odds with their non-adjacency - may be explained by general processing desiderata whose conflict is inherent.

Conceptual tools serving to **eliminate** conflicts include partonomy, as shown above, as well as taxonomy and multi-level representations. **Explaining** conflicts in turn may be achieved by identifying one of the three logically possible relations among the principles involved:

(a)   Override (one principle trumps the other)

E.g.: Relative clauses follow the head noun in English but they precede them in Japanese. Here, the principle of "Filler before Gap" overrides "Minimal Domain" in English but loses to it in Japanese. (Hawkins .2004: 205-210)

(b)   Compromise (one or both principles are adjusted)

E.g.: The Tagalog affix –*um* is infixed in consonant-initial stems as the result of a compromise between the morphological rule which requires prefixing and a phonological rule which bans closed syllables. (Kager 1999: 121-124)

(c)   Re-start (the troubled construction is blocked and abandoned in favor of an alternative)

E.g.: In Luganda, the sentence 'The man and his dog fell down" cannot be expressed because the verb cannot agree with both 'the man' and 'the dog'. Instead, 'The man fell with his dog" is used. (Corbett 2006: 249-250)

The usefulness of identifying types of conflicts and types of resolutions consist in providing common denominators across

- different components of grammar,
- different theoretical approaches to grammar,
- linguistics and other sciences, and
- science and everyday thinking.

References

Aissen, Judith 2003. Differential object marking: iconicity vs. economy. *Natural Language and Linguistics* 21: 435-483.

Corbett, Greville G. 2006. *Agreement*. Cambridge University Press.

Hawkins, John A. 2004. *Efficiency and complexity in grammars*. Oxford University Press.

Jackendoff, Ray 2002. *Foundations of language. Brain, meaning, grammar, evolution.* Oxford University Press.

Kager, René 1999. *Optimality theory*. Oxford University Press.

Macwhinney, Brian & Andrej J. Malchukov & Edith Moravcsik (eds.) 2014. *Competing motivations in grammar and usage*. Oxford University Press.

The Dutch *seem*-type verb *blijken*: From evidentiality to mirativity?

Tanja Mortelmans

(University of Antwerp)

The evidential semantics of *seem*-type verbs has been the subject of numerous studies (see e.g. Aijmer 2009 on the evidential polysemy of English *seem*; Vliegen 2011a-b, Mortelmans 2016 on the Dutch *seem*-type verbs *schijnen* and *lijken*; Diewald 2000, 2001 on German *scheinen*; Thuillier 2004 on French *paraître* and *sembler*). For Dutch, three *seem*-type verbs can be distinguished: *lijken*, *schijnen* and *blijken*, which occur in a wide variety of construction types, some of which (e.g. semi-auxiliary uses with a *te*-infinitive) are more evidential-prone than others (e.g. main verb uses, copular uses). Whereas *schijnen* is most often used as a semi-auxiliary expressing either inferential or reportive evidentiality (Van Bogaert & Colleman 2013), *lijken* is either used to voice personal opinions (typically as a copula in combination with an experiencer *x lijkt me* 'x seems to me'; see Mortelmans

(2016)) or to express an inferential evidential meaning (Koring 2012; Nuyts 2001: 338). The literature with respect to Dutch *blijken* is rather scarce, whereby it is striking that the verb is not automatically mentioned when evidentiality in Dutch is the topic (notable exceptions are Nuyts 2001, the Dutch reference grammar ANS, Vliegen 2010, 2011b and Sanders & Spooren 1996, although the latter do not use the term 'evidential'). De Haan (2000), for instance, does not mention *blijken* in his study on evidentials in Dutch and neither does Koring (2012). And interestingly, the studies that do pay some attention to *blijken* assume clear differences between *blijken* and the two other verbs. For one thing, *blijken* is said to "qualify the statement as necessarily factual" (Sanders & Spooren 1996: 266), whereas both *lijken* and *schijnen* are associated with a lower degree of certainty on the part of the speaker. And second, the evidence evoked by *blijken* is necessarily strong, whereas *lijken* and *schijnen* are compatible with weaker evidence.

The aim of my presentation is to address the evidential semantics of *blijken* in more detail than has been previously done, in order to establish *blijken's* position in the Dutch system of evidential *seem*-type markers. My analysis wil be based on both a quantitative and a qualitative analysis of 699 *blijken*-tokens (i.e. all the occurrences of *blijken* in the informal A-component, and the more formal F, G and L-components of the Corpus Spoken Dutch (CGN)), which includes both Netherlandic and Belgian Dutch. I will first address the constructional variability of *blijken*, i.e. the fact that it occurs in different morphological forms (finite vs. non-finite; present/past/perfect etc.) in different syntactic constructions (in copula constructions, as a semi-auxiliary with a *te*-infinitive or in impersonal complement constructions, to name but a few) and compare its distribution with the ones of *schijnen* and *lijken* (as discussed in Mortelmans (2016)). I will then link *blijken's* preference for particular construction types (in casu: te-infinitive and complement construction) with its evidential semantics that ranges – just like with *schijnen* – from inferential to reportive evidentiality. In contrast to *schijnen*, however, *blijken* is also used to express mirativity, i.e. to mark that the proposition arrived at through inference or hearsay, is unexpected, causes feelings of surprise or irritation and can thus be regarded as "new information that is not easily assimilated into a speaker's current situational awareness" (Peterson 2016: 1328). Finally, I will argue that *blijken*'s mirative meaning constitutes its "unique selling proposition", enabling the verb to maintain a solid position in the Dutch *lijken/schijnen/blijken*-trinity.

References

Aijmer, K. (2009). *Seem* and evidentiality. *Functions of Language,* 16(1), 63-88.

De Haan, F. (2000). Evidentality in Dutch. *Proceedings of the 25th Annual Meeting of the Berkeley Linguistics Society*, 74-85.

Diewald, G. (2000). *Scheinen* als Faktizitätsmarker. In: M. Habermann, P. O. Müller, & B. Naumann (Eds.), Wortschatz und Orthographie in Geschichte und Gegenwart. Festschrift für Horst Haider Munske zum 65. Geburtstag (pp. 333-355). Tübingen: Niemeyer.

Diewald, G. (2001). *Scheinen*-Probleme: Analogie, Konstruktionsmischung und die Sogwirkung aktiver Grammatikalisierungskanäle. In: R. Müller, & M. Reis (Eds.), Modalität und Modalverben im Deutschen (pp. 87-110). Hamburg: Buske.

Koring, L. (2012). Don't shoot the messenger: How subjectivity affects distributional properties. *Lingua* 122, 874-890.

Mortelmans, T. (2016). Seem-type Verbs in Dutch and German: *lijken, schijnen & scheinen*. In: J.I. Marín Arrese, G. Haßler & M. Carretero (eds.), Evidentiality Revisited. Cognitive grammar, functional and discourse-pragmatic perspectives (pp. 123-148). Amsterdam: John Benjamins.

Nuyts, J. (2001). Epistemic Modality, Language, and Conceptualization: A Cognitive-pragmatic Perspective. Amsterdam: John Benjamins.

Peterson, Tyler (2016). Mirativity as surprise: Evidentiality, Information, and Deixis. *Journal of Psycholinguistic Research* 45, 1327–1357.

Sanders, S. & W. Spooren (1996). Subjectivity and certainty in epistemic modality: A study of Dutch epistemic modifiers. *Cognitive linguistics* 7(3), 241-264.

Thuillier, F. (2004). Synonymie et différences. Le cas de *paraître* et *sembler*. In: C. Vaguer & B. Lavieu (eds.), Le verbe dans tous ses états. Grammaire, sémantique, didactique (pp. 161-178). Namur: Presses Universitaires de Namur.

Van Bogaert, J. & T. Colleman (2013). On the grammaticalization of *('t) schijnt* 'it seems' as an evidential particle in colloquial Belgian Dutch. *Folia Linguistica* 47(2), 481-520.

Vliegen, M. (2010). Lexikalische Evidentialität: das niederländische 'blijken'. Ein evidenter Fall der Grammatikalisierung. In: A.P. ten Cate, R. Rapp, J. Strässler, M. Vliegen & H. Weber (eds.), *Grammatik Sprache Geschichte* (pp. 209-216). Tübingen: Narr.

Vliegen, M. (2011a). Scheinbar identisch: Niederländisch *schijnen*, deutsch *scheinen*. In: W. Kürschner, R. Rapp, J. Strässler, M. Vliegen, & H. Weber, H. (eds.), Neue linguistische Perspektiven (pp. 231-244). Frankfurt: Lang.

Vliegen, M. (2011b). Evidentiality. Dutch 'seem' and 'appear' verbs: 'blijken', 'lijken', 'schijnen'. *Linguistics in the Netherlands* 28, 125-137.

Pre- and postverbal auxiliaries in Jinghpaw

André Müller

The languages of East and Southeast Asia are known for their productive strategies of verb serialization and marking of grammatical categories such as aspect, negation, causative, applicatives, etc. by means of verbal juxtaposition (cf. Matisoff 1973, Lord 1993, Aikhenvald & Dixon 2006, Anderson 2006). In most cases, these versatile verbs or auxiliaries are restricted in their placement before or after the main verb. Yet Jinghpaw is an exception from this pattern as it allows a subset of auxiliaries to occur either before or after the lexical verb. This study seeks to determine which underlying factors – sociolinguistic, syntactic, pragmatic, lexical, or other – predict the actual placement of these auxiliaries in relation to the main verb, and how strong these predictors are.

Jinghpaw is a Tibeto-Burman language spoken mainly in the Kachin State of northern Myanmar and adjacent regions in the Yunnan province of China. Jinghpaw auxiliaries (sometimes called "versatile verbs" or "secondary verbs") are a subclass of verbs, derived from lexical verbs, that assume related grammatical functions when combined with lexical verbs (Matisoff 1974, Dai 2012, Kurabe 2016). Most of them have a fixed position, either preceding or following the main verb, yet certain verbs, such as *lù* 'get' or *chye* 'know' can appear on either side, in most cases without any change in meaning, apparently in free variation, as exemplified below:

(1) *Shi   gàw   sumpyi **chye** dùm   ai.*
    3sg   top   flute **know** play   decl
    'S/he **can** play the flute.'

(2) *Shi   gàw   sumpyi dùm   **chye** ai.*
    3sg   top   flute play   **know** decl
    'S/he **can** play the flute.'

Flexibly pre- and postverbal auxiliaries have been reported for other languages, such as Dutch, Russian, Breton, Lahu (Matisoff 1973), Purépecha and Gurindji (both Anderson 2006), but the

phenomenon is still rare in the languages of the world. Insight into the causal factors will further our understanding of language variation in this aspect of grammar, as well as in this part of the world.

The analysis is based on corpus data from spoken and written Jinghpaw from both China and Myanmar, partly collected in the field. A binary logistic regression model was used to determine which of the factors can help predict the auxiliary's position, and found that language-internal factors like the type of auxiliary, polarity, as well as sociolinguistic factors such as language variety are among the strongest predictors for the positioning of the auxiliary.

References

Aikhenvald, Aleksandra Y. & R.M.W. Dixon. 2006. *Serial Verb Constructions: A Cross-linguistic Typology.* Oxford/New York: Oxford University Press.

Anderson, Gregory D.S. 2006. *Auxiliary Verb Constructions.* Oxford/New York: Oxford University Press.

Dai Qingxia [戴庆厦]. 2012. *Jǐngpōyǔ cānkǎo yǔfǎ (Reference Grammar of the Jingpo Language)* [景颇语参考语法]. Beijing: Chinese Academy of Social Sciences Press.

Kurabe Keita. 2016. *A Grammar of Jinghpaw, from Northern Burma* (PhD Dissertation). Tokyo: Tokyo University of Foreign Studies.

Lord, Carol. 1993. *Historical Change in Serial Verb Constructions.* Amsterdam/Philadelphia: John Benjamins Publishing.

Matisoff, James A. 1973. *The Grammar of Lahu.* Berkeley: University of California Press.

Matisoff, James A. 1974. "Verb Concatenation in Kachin." In: *Linguistics of the Tibeto-Burman Area* 1; pp. 186–206.

Semantic and pragmatic properties of the 'until' clauses in three Finno-Ugric languages

Nikita Muravyev

(RAS Institute of Linguistics, Moscow)

This study aims at giving theoretical consideration to the semantic and pragmatic phenomenon of the 'until'-relation in three Finno-Ugric languages (Izhma Komi, Moksha Mordvin and Hill Mari) based on the data collected during fieldwork as well as descriptive grammars. 'Until'-type temporal relation (e.g. "terminus ad quem" in [Kortmann 1998: 364–368], "terminal boundary" in [Givón 2001: 330]) has always been considered in typological literature as a kind of non-simultaneous relation in which one of the two events indentifies a point in time and the other event which is continuous in time happens before the given point. Thus the difference between 'until'- and 'before'-relations comes from aspectual restrictions imposed on the events in the former relation (perfective events must be preceded by an imperfective event, as in *Peter worked/*left **until** Mary came*) whereas in the case of the latter relation no such restrictions are observed (*Peter worked/^{OK}left **before** Mary came*).

However, comparative data from the Finno-Ugric languages show that the specific nature of the 'until'-relation apparently goes beyond purely aspectual variation. It deals not with the events themselves but rather with the corresponding propositions and their truth values. For instance, in a sentence (1) from Hill Mari the given point (the moment of 'came') sets a boundary between a period of time earlier when the head event ('sang') has a positive value and another period of time after that when it has a negative value. When the head event is negated, as in (2), the truth values before and

after the point switch with each other. Example (3) with a 'before'-construction, on the contrary, does not indicate any switch of values.

> *(1) tokə̂-žə̂*   ***šo-meškə̂***   *maša*   *mə̂r-en*
> home.ILL-POSS.3SG   reach-CVB.LIM Mary   sing-PF.3SG
> 'Mary sang until she came home.' (= then she stopped)
> *(2) tokə̂-žə̂*   ***šo-meškə̂***   *maša*   *mə̂rə̂-de*
> home.ILL-POSS.3SG   reach-CVB.LIM Mary   sing-PF.NEG.3SG
> 'Mary didn't sing until she came home.' (= then she started to sing)
> *(3) tokə̂-žə̂*   ***šo-mə̂***   *anzə̂c*   *maša*   *mə̂r-en / -de*
> home.ILL-POSS.3SG   reach-NMZ   before   Mary   sing-PF.3SG/-PF.NEG.3SG
> 'Mary sang/didn't sing before she came home.'

Moreover, these relations also differ with respect to their pragmatic properties such as givenness of the marked event. In the case of the 'before'-relation, as in (3), the background information is always given which means that the event of Mary coming home is present in the mind of the adressee at the moment of utterance. In the case of the 'until'-relation, as in (1, 2), this information can be either given or new. This possibility of coding new information gives ground for further semantic development of the 'until'-constructions into the meaning of 'consequence' (*šolmeškə̂ ə̈räkten* 'heated so that it boiled') and 'degree' (*amasa šajə̂lnə̂ šalgə̂meškə̂ lüden* 'was so scared that only stood behind the door').

References

Givón 2001 — Givón T. Syntax: An introduction, vol. 2, John Benjamin's Publishing. Amsterdam, 2001

Kortmann 1998 — Kortmann B. Adverbial subordinators in the languages of Europe. In: van der Auwera J., Baoill, Ó., Dónall P. (eds.) Adverbial Constructions in the Languages of Europe. Empirical approaches to language typology 20-3. Berlin: Mouton de Gruyter, 1998. P. 457–562

Abbreviations

CVB — converb, ILL — illative, LIM — limitive, NEG — negation, NMZ — nominalizer, PF — perfect, POSS — possessive, SG — singular, 1–3 — person

Figurative quotations, irony and sarcasm

Andreas Musolff

(University of East Anglia)

In public political discourse, prominent figurative language use is often followed up and 'countered' by other discourse participants' combining direct or indirect quotation of the 'precedent' use with sarcastic metacommunicative comments or reinterpretations that aim at denouncing the preceding version and/or deriving a contrarian conclusion from it. What is the relationship between the template expression and its sarcastic variants?

  Using data from a research corpus documenting 25 years of public debate (1991-2016) in Britain about the nation's place *at the heart of Europe*, this paper investigates the interplay of metaphor, irony

and sarcasm. Its aim is threefold: first, we will map out the 'discourse career' of this metaphorical slogan as a series of re-contextualisations that have affected its evaluative bias and resulted in two main opposite usage versions; secondly, we argue that its ironical and/or sarcastic reinterpretations (e.g. *the heart of Europe* as *ill, dead, rotten, hollow* etc.) presuppose the optimistic usage template, so that in a sense, the latter never disappears completely from the conceptual scenario that is evoked by the metaphor, and thirdly, we propose a distinction between ironical and sarcastic uses that is based on their relationship to the preceding 'template' use, rather than treating sarcasm just as an 'insulting' form of irony.

In order to answer these research questions, we combine cognitive, pragmatic and discourse-historical methods to analyse correspondences between changes in the presupposed source scenarios and in the discursive and political context that informs their usage. In conclusion, we argue that recipients of the ironical and sarcastic uses need to adduce evidence from the textual environment and their wider socio-historical knowledge, in order to:

a) recognise the global adversarial character of the actual speaker's use of the slogan (e.g. on the basis of the metaphor producers' known party- and EU-political affiliations);

b) resuscitate the organic source scenario of the metaphorical slogan together with the positive bias ('healthy heart') of its preceding use(s); and contrast it with the negative bias of the recontextualised scenario);

c) interpret the mismatch between the preceding and actual utterances as proof of its speaker's incompetence/naivety (from the actual speaker's viewpoint) in relying on the default scenario of a 'healthy heart'. By juxtaposing the echoed or pretended speaker's 'healthy optimism' with a drastic 'illness'/'death' scenario, the actual speaker's communicative intention is interpretable as aiming at a put-down and/or disqualification of the preceding speaker's competence.

References

Bowdle, Brian F., Gentner, Dedre, 2005. The career of metaphor. *Psychological Review,* 112 (1), 193-216.

Brewer's Dictionary of Phrase & Fable, 1999. Ed. Room, Adrian. London: Cassell.

Charteris-Black, Jonathan, 2014. *Analysing Political Speeches: Rhetoric, Discourse and Metaphor.* Basingstoke: Palgrave-Macmillan.

Clark, Herbert, Gerrig, Richard J., 1984. On the pretense theory of irony. *Journal of Experimental Psychology: General* 113, 121–126.

Colston, Herbert, Gibbs, Raymond W., 2002. Are irony and metaphor understood differently? *Metaphor and Symbol* 17, 57-60.

Culpeper, Jonathan, 2011. *Impoliteness: Using Language to Cause Offence.* Cambridge: Cambridge University Press.

Dynel, Marta, 2013. Irony from a neo-Gricean perspective: On untruthfulness and evaluative implicature. *Intercultural Pragmatics* 10(3), 403-431.

Fauconnier, Gilles, Turner, Mark, 2002. *The Way We Think: Conceptual Blending and the Mind's Hidden Complexities.* New York: Basic Books.

Fetzer, Anita, Weizman, Elda, 2015. Follow-ups across contexts and discourse domains. In E. Weizman, E., Fetzer, A. (Eds.), *Follow-ups in Political Discourse*. Amsterdam: Benjamins, pp. ix-xix.

Gibbs, Raymond W., 1994. *The Poetics of Mind: Figurative Thought, Language, and Understanding.* Cambridge: Cambridge University Press.

Gibbs, Raymond W., Colston, Herbert (Eds.), 2012. *Interpreting Figurative Meaning.* Cambridge: Cambridge University Press.

Giora, Rachel, 1995. On Irony and Negation. *Discourse Processes* 19(2), 239-264.

Giora, Rachel, 2003. *On our Mind: Salience, Context and Figurative Language.* Oxford: Oxford University Press.

Giora, Rachel, Drucker, Ari, Fein, Ofer, Mendelson, Itamar, 2015a. Default Sarcastic Interpretations: On the Priority of Nonsalient Interpretations. *Discourse Processes* 52(3), 173-200.

Giora, Rachel, Givoni, Shir, Fein, Ofer, 2015b. Defaultness Reigns: The Case of Sarcasm. *Metaphor & Symbol* 30: 290–313.

Grice, H. Paul [1975] 1989, Logic and Conversation. In: *Studies in the Way of Words*. Cambridge, MA: Harvard University Press, pp. 22-40.

Kumon-Nakamura, Sachi, Glucksberg, Sam, Brown, Mary. 1995. How about another piece of pie: The allusional pretense theory of discourse irony. *Journal of Experimental Psychology: General* 124, 3–21.

Pálinkás, István, 2014. Blending and Folk Theory in an explanation of irony. *Review of Cognitive Linguistics* 12(1), 64-98.

Niemeier, Susanne, 2000. Straight from the heart — metonymic and metaphorical explorations. In: Barcelona, A. (Ed.), *Metaphor and Metonymy at the Crossroads. A Cognitive Perspective*. Berlin: De Gruyter, pp. 195-213.

Partington, Alan, 2007. Irony and reversal of evaluation. *Journal of Pragmatics* 39(9), 1547-1569.

Partington, Alan, 2011. Phrasal irony: its form, function and exploitation. *Journal of Pragmatics* 43(6), 1786-1800. doi:10.1016/j.pragma.2010.11.001

Recanati, François, 2004. *Literal Meaning*. Cambridge: Cambridge University Press.

Roget's International Thesaurus, 1996. Ed. Chapman, Robert. Glasgow: *Roget's* HarperCollins.

Sperber, Dan. (Ed.), 2000. *Metaprepresentations: a multidisciplinary perspective.* Oxford: Oxford University Press.

Sperber, Dan, Wilson, Deirdre. 1981. Irony and the use–mention distinction. In: Cole, P. (Ed.), *Radical Pragmatics*. New York: Academic Press, pp. 295–318.

Wilson, Deirdre, Sperber, Dan, 1992. On verbal irony. *Lingua* 87, 53–76.

Wilson, Deirdre, Sperber, Dan, 2012. Explaining irony. In: Wilson, D., Sperber, D., (Eds.). *Meaning and Relevance*. Cambridge: Cambridge University Press, pp. 123-145.

A start is always a start of something: Unexpressed anaphoric relations as a cohesive device

Anna Nedoluzhko, Šárka Zikánová, & Eva Hajičová
(Charles University, Prague)

Text coherence is provided for by a complex system of relations. From the formal point of view, these relations are prototypically expressed by various language means, such as discourse connectives (*therefore, but*) and their alternative lexicalizations (*this contrasts with*), as well as anaphoric means (pronouns, articles).

However, there are also cases where an explicit cohesive marker in a coherent text is absent. The relevant information that makes the text coherent is deduced e.g. from the relations between lexical items (hyperonymy, antonymy), morphological means (verbal aspect, mood, tense; comparison with adjectives and adverbs), as well as syntactic constructions (parallel structures). The main focus of our

contribution is the syntactic aspect of implicit cohesive relations in its interplay with semantico-pragmatic and discourse-functional factors. We analyze syntactic structures with sentence-initial nouns and adjectives in Czech which implicitly refer to the previous context, such as the following example. Here, an unexpressed anaphoric element (***its** topic, **the** topic **of the lecture;** in Czech **jejím tématem**) can be reconstructed:

(Previous context: *Profesor Darwin bude mít přednášku. – A lecture will be given by Professor Darwin.*)

Tématem	*je*	*vývoj*	*ptáků.*
topic-INST	is	evolution	bird-PL-GEN

The topic is the evolution of birds.

The group of words used in such construction is not restricted to nouns, cf. the example with the word *famous*, where the relation to *the center of the city* and *the Georgian epoch* is implied:

(Previous context: *Samotný střed města je ovlivněn georgiánskou epochou. – The very center of the city is influenced by the Georgian epoch.*)

Proslulé	*jsou*	*především typické*	*dublinské*	*vchodové*	*dveře.*
famous-NOM	be-3rd-PL	especially typical	Dublin	entrance	doors.

Especially, the typical Dublin doors are famous.

So far, this kind of cohesion has been described for specific groups of nouns (shell nouns like *The thing is*, Delahunty 2012) and partly addressed in the study of ellipsis (Halliday and Hasan, 1976) and of bridging relations (Clark 1977). However, our material provides evidence that the cohesion in these cases is not given by semantics of these words only, but rather it is determined by syntactic features, such as relational (valency) properties of nouns and adjectives and their initial position in the sentence. Operating together, these two factors represent strong means of text cohesion. In our contribution, we document and analyse this cohesive device in Czech on the data from the Prague Dependency Treebank (Bejček et al., 2013), a large-scale newspaper corpus, annotated with morphological, shallow and underlying syntactic information, as well as with coreference, discourse and bridging relations.

References

Bejček, E. et al. (2013). Prague Dependency Treebank 3.0. Prague: Institute of Formal and Applied Linguistics.

Clark, H. (1977). Bridging. In Proceedings of the 1975 workshop on Theoretical issues in natural language processing, Cambridge.

Halliday, M. and Hasan, R. (1976). Cohesion in English. Longman, London, New York.

Delahunty, G. (2012). An analysis of "The thing is that" sentences. Pragmatics 22, 1. 41–78. Schmid, H.J. (2001). 'Presupposition can be a bluff.': How abstract nouns can be used as presupposition triggers. Journal of Pragmatics 33. 1529–1552.

Postverbal conjoined subjects and first conjunct agreement in Bosnian/ Croatian/ Serbian: An experimental study

Leko Nedzad, Nermina Cordalija, & Ivana Jovovic

In some previous experimental work on agreement strategies in South Slavic languages (see Marušič et al. (20015), Willer-Gold et al. (2016), Nevins (2016), Čordalija et al. (2016)), it was demonstrated that the closest conjunct agreement (CCA) is the only available strategy for agreement with conjoined NPs in postverbal contexts. However, the examples that are claimed to be a result of closest conjunct agreement in postverbal contexts, as in (1a) from Bosnian/ Croatian/ Serbian (B/C/S), could potentially be analysed as clausal ellipsis, as in (1b):

(1) a.   U borbi su se sudarala   koplja   i   sablje.
          in battle   collided.$_{neut}$ spears.$_{neut}$ and   swords.$_{fem}$
          'In the battle collided spears and swords.'

   b.   U borbi su se sudarala koplja i u borbi su se sudarale sablje.

The clausal ellipsis analysis of examples with postverbal conjoined subjects was actually argued for by Aoun, Benmamoun and Sportiche (1994). In their approach based on examples from three dialects of Arabic, the postverbal linear agreement was actually claimed to be a result of clausal ellipsis, not of closest conjunct agreement. Thus, they predicted a semantic independence of two coordinated events. However, Munn (1999) pointed out that this claim is difficult to defend if a specific type of predicates were taken into account – the so-called collective predicates. Therefore, we designed a sentence-picture matching experiment with collective verbs and postverbal subjects with speakers of B/C/S in order to test whether postverbal linear agreement was a result of phrasal coordination or clausal ellipsis. The participants in the experiment were given sentences with accompanying pictures and they had to determine whether each sentence matched the corresponding picture and to what degree (on a 0-100% scale). Thirty participants were tested, third-year students at the University of Sarajevo (mean age 21). A 2x2 factorial design was employed, with collective predicates (*collide*-type verbs) and simple, non-collective predicates (*display*-type verbs), eight of each, contrasting conjoined &P subjects (e.g. *spears* and *swords*) with simple NPs (e.g. *swords*), yielding 32 experimental items and 32 fillers.

The study managed to show that CCA is not a result of clausal ellipsis, but a distinct agreement strategy. Since the experiment demonstrated no significant difference in ratings between sentences containing conjoined &P subjects and simple NP subjects with collective verbs, we concluded that sentences with conjoined &P subjects and collective predicates (*collide*-type verbs) were not derived by means of clausal ellipsis. Otherwise, such sentences would be rated considerably lower than all others, because the picture with which such sentences were paired would be incompatible with the interpretation which assumes two-event semantics. And such readings would be inevitable if such sentences underlyingly had a biclausal structure.

References

Aoun, Joseph, Elabbas Benmamoun and Dominique Sportiche. 1994. Agreement, word order, and conjunction in some varieties of Arabic. *Linguistic Inquiry* 25: 195-220.

Čordalija, Nermina et al. 2016. Grammars of Participle Agreement with Conjoined Subjects in Bosnian/Croatian/Serbian. *Journal of Slavic Linguistics* 24: 71-112.

Marušič, Franc, Andrew Nevins, and William Badecker. 2015. The grammars of conjunction agreement in Slovenian. *Syntax* 18(1): 39–77.

Munn, Alan. 1999. First conjunct agreement: Against a clausal analysis. *Linguistic Inquiry* 30: 643-668.

Nevins, Andrew. 2016. Discarding a clausal coordination and ellipsis source for CCA: a picture-matching study. Talk at *Ellipsis Across Borders Conference*. University of Sarajevo, 20-21 June.

Willer-Gold, Jana et al. 2016. Conjunct Agreement and Gender in South Slavic: From Theory to Experiments to Theory. *Journal of Slavic Linguistics* 24: 187-224.

Low-frequency grammaticalisation and lifespan change: Insights from *let alone* and William Faulkner

Jakob Neels

(Leipzig University)

This paper explores two under-researched topics in the study of grammaticalisation: (i) the grammaticalisation of low-frequent constructions and (ii) grammaticalisation in the individual across the lifespan. Low-frequency grammaticalisation is, as noted by Hilpert & Cuyckens (2016: 2) among others, "a phenomenon that is inherently problematic for current standard views of grammaticalization." In particular, it poses a challenge to usage-based explanations of grammaticalisation drawing on frequency effects (e.g. Bybee 2010, Haiman 1994). Seeking to reconcile current frequency-effect accounts with this problematic phenomenon, the present paper investigates the case of the low-frequent English construction [X, *let alone* Y] (e.g. Fillmore et al. 1988, Sawada 2003, Toosarvandani 2009, Cappelle et al. 2015) on the basis of a large diachronic data set extracted from the Corpus of Historical American English (Davies 2010–; COHA). The corpus results indicate that, during the gradual context expansion of the *let alone* construction, the pattern [*let alone* V-*ing*] served as a crucial bridging structure in the decategorialisation of the verb *let* (*alone*) towards a conjunction-like construction. While in standard cases of grammaticalisation, the underlying cognitive mechanisms of chunking, routinisation and emancipation from etymologically related forms are fuelled by increasingly high frequencies of use, the case of *let alone* demonstrates that the requirement of high discourse frequency can sometimes be overridden by other factors: above all by high pragmatic salience (cf. Schmid 2014) and, secondly, by words' relative frequencies of co-occurrence. Given that salience affects language processing, a more refined frequency-effect approach to grammaticalisation must move beyond frequency as directly observable in corpora, and reflect more carefully on the different ways in which frequency is experienced and mentally registered by language users. After all, frequency has an effect on change only if the processing event leaves a trace in memory that lasts long enough to influence the next related usage events.

As a second major objective, this study tracks the ongoing grammaticalisation of the *let alone* construction in one individual, the US-American novelist William Faulkner. Such an approach has only rarely been pursued in previous corpus studies, even though it is highly advisable to base grammaticalisation research not only on general-purpose corpora showing the averaged usage of a whole community, but also on data that directly reflect the grammars of non-idealised individual speakers (cf. Barlow 2013). The analysis of a self-compiled Faulkner corpus (comprising all his novels) against the background of the community-wide data from the COHA reveals that Faulkner's higher and increasing rates of use of the *let alone* construction are linked to an above-average degree of grammaticalisation. The extent of the attested lifespan change suggests that Faulkner did not simply

follow the lead of younger generations of speakers in the change-in-progress, but rather he self-induced the further generalisation of the *let alone* construction in his idiolect through regular routinised use. These findings lend support to Bybee's usage-based view of grammaticalisation as a frequency-driven process of cognitive automation. Overall, the present case study gives valuable insights into the dynamics of low-frequency grammaticalisation and of language change in general, with due consideration of the level of the speech community versus that of the individual speaker.

References

Barlow, Michael. 2013. Individual differences and usage-based grammar. *International Journal of Corpus Linguistics* 18:4. 443–478.

Bybee, Joan. 2010. *Language, usage and cognition*. Cambridge: Cambridge University Press.

Cappelle, Bert, Edwige Dugas, and Vera Tobin. 2015. An afterthought on *let alone*. *Journal of Pragmatics* 80: 70–85.

Davies, Mark. 2010–. The Corpus of Historical American English: 400 Million Words, 1810–2009. Available online at <http://corpus.byu.edu/coha/>.

Fillmore, Charles J., Paul Kay & Mary Catherine O'Connor. 1988. Regularity and idiomaticity in grammatical constructions: The case of *let alone*. *Language* 64. 501–538.

Haiman, John. 1994. Ritualization and the development of language. *Perspectives on grammaticalization* ed. by William Pagliuca, 3–28. Amsterdam: John Benjamins.

Hilpert, Martin, & Hubert Cuyckens. 2016. How do corpus-based techniques advance description and theory in English historical linguistics? An introduction to the special issue. *Corpus Linguistics and Linguistic Theory* 12:1. 1–6.

Sawada, Osamu. 2003. Rethinking the *let alone* construction: What are its construction- specific characteristics? *Journal of Pan-Pacific Association of Applied Linguistics* 7.1: 135–151.

Schmid, Hans-Jörg. 2014. Lexico-grammatical patterns, pragmatic associations and discourse frequency. *Constructions collocations patterns* ed. by Thomas Herbst, Hans-Jörg Schmid & Susen Faulhaber, 239–293. Berlin: Mouton de Gruyter.

Toosarvandani, Maziar 2009. The relevance of focus: The case of *let alone* reopened. *UMOP 39: Papers in Pragmatics*. Eds. María Biezma and Jesse Harri. Amherst, MA: GLSA. 105–123.

The Danish infinitive marker 'at' and the transcategorial paradigm of determination

Peter Juul Nielsen

(University of Southern Denmark)

The Danish infinitive, e.g. *spis-e* 'eat'-INF, occurs with or without the infinitive marker *at* (Hansen & Heltoft 2011: 204-206; cf. Haspelmath 1989). The paper argues that *at* is a proclitic in paradigmatic opposition to its own absence, viz. a zero clitic (cf. Mel'čuk 2006: 469-476), and that the semantic content of this opposition is determination, determinate (DET) *at=spis-e* vs. indeterminate (INDET) *Ø=spis-e* (Nielsen 2016: 354-386). The theoretical framework is the structural-functional approach in Danish Functional Linguistics (Engberg-Pedersen et al. 1996, 2005), and the data is sampled from corpora of Modern Danish.

The paper offers an alternative to the standard verbal vs. nominal analysis that describes *at* as a transpositional morpheme that replaces an inherent verbal function with a derived nominal function

(Hansen & Heltoft 2011: 204, 206, 1424). The syntactic function of the zero-marked infinitive is arguably verbal, e.g. in complex predicate formation with a modal auxiliary (1).

(1)
Ivan skal Ø=syng-e
Ivan must.PRES INDET=sing-INF
'Ivan must sing'

However, while the *at*-marked infinitive may function as a nominal constituent (2), it also has various clearly non-nominal functions, e.g. in the raising construction in (3) (cf. Boye 2005; Langacker 1995) and the purposive adverbial-like function in (4) (cf. Haspelmath 1989).

(2)
at=vent-e irriterer Ivan
DET=wait-INF annoy.PRES Ivan
'waiting annoys Ivan'
(3)
vejret begyndte at=bliv-e varmere
the.weather begin.PAST DET=become-inf warmer
'the weather began to get warmer'
(4)
Ivan gik ind at=klag-e
Ivan walk.PAST inside DET=complain-inf
'Ivan went inside to complain'

The paradigm analysis is based on the conceptual and syntactic dependence of the infinitive in itself, "prior to" the +/- *at* selection. The infinitive contributes only the ungrounded meaning of the verb stem (Haspelmath 1989: 287; Langacker 1987a: 126-127; 1987b), and it is dependent on "anchoring" of the process schema it designates (cf. Langacker 1987a: 244-254). Anchorage may be provided externally in the syntactic construction, e.g. by a finite modal verb as in (1), or internally in the morphological structure of the infinitive by the proclitic *at*, which enables the infinitive to function on its own, conceptually and syntactically independent, in various functions outside complex predicate formation (2-4). The anchoring-dependent zero-marked infinitive is indeterminate, and this is signalled by the zero clitic as a meaningful absence (Mel'čuk 2006: 470). The *at*-marked infinitive, in contrast, is determinate. The result of the analysis is an inflectional paradigm (in the sense in Nørgård-Sørensen et al. 2011) that straddles syntactic categories (verbal function vs. other functions), and the paper offers a model for describing such transcategorial morphological paradigms.

The term determination indicates a parallel to the role of the determiner in Danish NPs: Danish nouns only qualify for argument status and referential potential when combined with a determiner (Jensen 2007ab, 2011). The exploration of similarities between the role of *at* and the role of determiners is thus a contribution to the research in the parallels between NP (or DP) structure and sentence structure in both formal (Abney 1987; Carnie 2007: 198-212) and functional approaches (Rijkhoff 2008).

References
Abney, S. (1987). *The English Noun Phrase in its Sentential Aspect*. Doctoral dissertation, MIT.

Boye, K. (2005). Raising verbs vs. auxiliaries. In M. Fortescue et al. (eds). *Historical Linguistics 2003: Selected papers from the 16th International Conference on Historical Linguistics, Copenhagen, 11–15 August 2003*. Amsterdam & Philadelphia: John Benjamins, 31-46.

Carnie, A. (2007). *Syntax. A Generative Introduction*. 2nd ed. Malden, Oxford & Victoria: Blackwell.

Engberg-Pedersen, E., M. Fortescue, P. Harder, L. Heltoft, L. Falster Jakobsen (eds) (1996). *Content, Expression and Structure. Studies in Danish Functional Grammar*. Amsterdam: John Benjamins.

Engberg-Pedersen, E., M. Fortescue, P. Harder, L. Heltoft, M. Herslund, L. Falster Jakobsen (2005). *Dansk Funktionel Lingvistik*. University of Copenhagen, Copenhagen Business School & Roskilde University.

Hansen, E. & L. Heltoft (2011). *Grammatik over det Danske Sprog* [Grammar of the Danish Language]. Copenhagen: Det Danske Sprog- og Litteraturselskab.

Haspelmath, M. (1989). From purposive to infinitive – A universal path of grammaticalization. *Folia Linguistica Historica* 10, Issue 1-2, 287–310.

Jensen, E.S. (2007a). Der var engang en mand – om markeret og umarkeret artikelbrug i moderne dansk og gammeldansk. In H. Jørgensen & P. Widell (eds). *Det bedre argument. Festskrift til Ole Togeby 7. marts 2007*. Århus: Wessel og Huitfeldt, 299-320.

Jensen, E.S. (2007b). Om udviklingen af den ubestemte artikel i dansk. In M. Birkelund et al. (eds). *Ny forskning i grammatik* 14. Odense: University Press of Southern Denmark, 145-162

Jensen, E.S. (2011). *Nominativ i gammelskånsk – afvikling og udviklinger*. Copenhagen: Universitets-Jubilæets danske Samfund.

Langacker, R. (1987a). *Foundations of Cognitive Grammar*, vol. 1: *Theoretical Prerequisites*. Stanford: Stanford University Press.

Langacker, R. (1987b). Nouns and verbs. *Language* 63.I, 53-94.

Langacker, R. (1995). Raising and transparency. *Language* 71.1, 1-62.

Mel'čuk, I. (2006). *Aspects of the Theory of Morphology*. Berlin & New York: Mouton de Gruyter.

Nielsen, P.J. (2016). *Functional Structure in Morphology and the Case of Nonfinite Verbs: Theoretical Issues and the Description of the Danish Verb System*. Empirical Approaches to Linguistic Theory 9. Leiden: Brill.

Nørgård-Sørensen, J., L. Heltoft & L. Schøsler (2011). *Connecting grammaticalisation. The role of paradigmatic structure*. Amsterdam & Philadelphia: John Benjamins.

Rijkhoff, J. (2008). Synchronic and diachronic evidence for parallels between noun phrases and sentences. In F. Josephson & I. Söhrman (eds). *Interdependence of Diachronic and Synchronic Analyses*. Amsterdam & Philadelphia: John Benjamins, 13-42.

Towards a distributional typology of sound change in Eurasia: directionality and areality of sound changes in the IE family

Dmitry Nikolaev & Eitan Grossman
(Hebrew University of Jerusalem)

Understanding sound change is crucial for any attempt to reconstruct earlier stages of language, but sound change may also be considered to constitute an explanation for synchronic sound patterns, whether language-specific or across languages (Greenberg 1966, Blevins 2004, 2008). Identifying pathways of change – as well as their motivations – is one of the main goals of sound change

typology. However, as Kümmel (2015: 132) points out, we still do not know enough about the typology of attested sound changes. Moreover, due to the paucity of databases of sound change, it is still unclear to what extent sound changes pattern genetically or areally. This talk presents part of an ongoing research project on the typology of sound change throughout Eurasia. The main questions that we address in this talk are: (1) to what extent are sound changes unidirectional; (2) to what extent do sound changes pattern areally within Eurasia; and (3) what are the possible sources for particular features (e.g., place, manner, VOT).

This talk is based on a database of more than 5000 historically-attested individual sound changes in the languages of Eurasia, with extensive data collected for Indo-European, Semitic, Turkic, Tibeto-Burman, and Dravidian, as well as for a number of other families. In the present talk, we focus on Indo-European as a test case. We include only changes that either develop from or to a single consonantal segment. Each change was represented as a feature vector, which makes it possible to statistically compare change assemblages (for instance, from particular genera) and formally define and analyse distributions of different types of change.

For Indo-European, we have three main findings. First, sound change assemblages seem to display strong areal signals: genus level clusterisation of sound-change assemblages shows that geographically close genera display similar sound change patterns (Fig. 1); for example, Romance and Greek show similar patterns of sound change in the historical period, despite not being closely related. Second, the directionality of sound change strongly depends on its type and context: some changes involving place and manner display considerable bidirectionality (e.g., devoicing and voicing of obstruents in unrestricted contexts) (Fig. 2), while other are strongly unidirectional (e.g., unrestricted depalatalization of stops) (Fig. 3). Finally, some place and manner features shows strong restrictions on possible diachronic sources (Fig. 4). For example, (i) nasal segments develop almost exclusively by transfer from other nasal segments and (ii) interdental segments develop almost exclusively from dentals, while (iii) velar and dental-alveolar segments have multiple diachronic sources.

In light of this data, we address the more general problem of segmental-inventory typology. We show that it is possible to quantify the degree of stability of different types of segments (interdentals and palatal stops being a classic example of unstable segments) vis-à-vis different contexts and dependence of their dynamics on areal factors.

References

Blevins, Juliette. 2004. *Evolutionary Phonology: The Emergence of Sound Patterns.* Cambridge: Cambridge University Press.

Blevins, Juliette. 2008. Natural and unnatural sound patterns: A pocket field guide. In: Klaas Willems and Ludovic De Cuypers (eds.) *Naturalness and iconicity in language*, 121–48. Amsterdam: John Benjamins.

Greenberg, Joseph. 1966. Synchronic and Diachronic Universals in Phonology. *Language* 42(2):508–517.

Kümmel, Martin J. 2007. *Konsonantenwandel: Bausteine Zu Einer Typologie Des Lautwandels Und Ihre Konsequenzen Fuer Die Vergleichende Rekonstruktion.* Wiesbaden: Reichert.

Kümmel, Martin J. 2015. The role of typology in historical phonology. In: Patrick Honeybone & Joseph Salmons (eds.) *Oxford Handbook of Historical Phonology*, 121-132. Oxford: Oxford University Press.

Clusterisation of IE genera
by predominant types of sound change
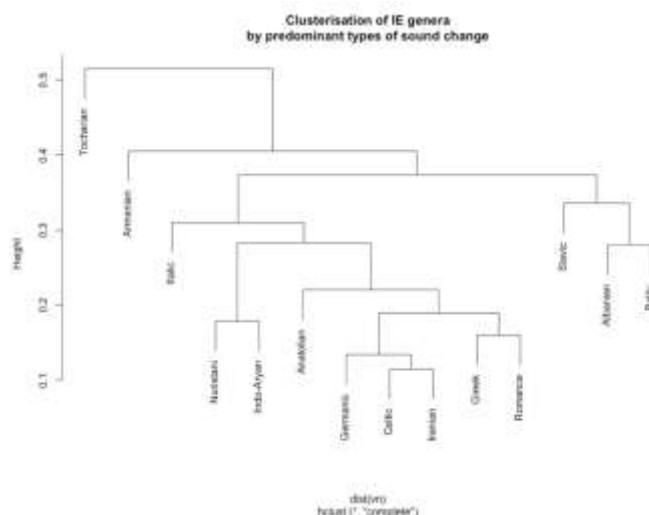
Type noun constructions (TNCs) in North Scandinavian and beyond: Multiple motivations behind similarities across languages

Oda Røste Odden

(University of Oslo)

My project aims to describe the use of Swedish and Norwegian type nouns (*slags, sorts* and *type*), and further help answer the intriguing question of why type nouns tend to develop in particular ways. Nouns with the meaning 'type, kind' are known to acquire certain new functions and meanings and partake in idiosyncratic constructions in European languages (English, Spanish, Russian, Swedish etc.) (e.g. Mihatsch 2010, Brems 2011) – a development often identified as grammaticalisation.

The striking similarities across languages have been suggested to be a result of taxonomic principles in Western learned tradition (Mihatsch 2016), of the inherent meaning of the type nouns (Rosenkvist and Skärlund 2013) and also of contact (e.g. Olofsson 2016). In my talk, I will argue that the motivation is complex based on the grammatical features of the North Scandinavian TNCs and how they resemble and deviate from other TNCs. There are reasons to assume that both influence between constructions within and across languages as well as inherent properties of type nouns have played a role in the development of North-Scandinavian TNCs.

I will zoom in on some uses of *typ(e)* in Norwegian, and show how different constructions have influenced them. The use of *type* has parallels in phoric and extending uses of Norwegian *slags,* as well as the use of English *type,* e.g. the "semi-suffix use"; in Norwegian corpora we find NPs where the head noun is preceded by a noun or phrase which is turned into a modifier by a "suffixed" instance of *type* (as in *ikke akkurat 'første date' type mat,* lit.: *not exactly "first date" type food*), which is not possible with other Norwegian type nouns – and is hence an indication of English influence. The form *typ* – the Swedish cognate of *type* – has also emerged in Norwegian in recent years, and preliminary corpus investigations indicate that *typ* is prevalently used in the same way as the most grammaticalised and salient uses of Swedish *typ,* as a preposition, hedging adverbial and discourse particle, and particularly frequently to approximate numbers and time specifications. It is interesting that not just the form seems to be a loan, but also collocational and grammatical properties that cannot be predicted by integration of *typ* to an existing word category. There are also a few instances in corpus of *type* used with these new functions, and the two words may be merging.

We seem to have a case of multiple inheritance (Velde, Smet, and Ghesquière 2013) with source constructions in different languages. Still, both contact and internal development may contribute in changes like grammaticalisation (Heine and Kuteva 2005). I will argue that there are indeed inherent properties of type nouns that facilitate these developments, both because 1) the type nouns share properties with other nouns frequently going through similar changes, and 2) there are examples of type nouns that have gone through similar changes in languages geographically and genetically distant from the European languages.

References

Brems, Lieselotte. 2011. *Layering of size and type noun constructions in English*. Vol. 74, *Topics in English linguistics*. Berlin: de Gruyter Mouton.

Heine, Bernd, and Tania Kuteva. 2005. *Language contact and grammatical change*, *Cambridge approaches to language contact*. Cambridge: Cambridge University Press.

Mihatsch, Wiltrud. 2010. *"Wird man von hustensaft wie so ne art bekifft?" : Approximationsmarker in romanischen Sprachen*. Vol. Bd. 75, *Analecta Romanica*. Frankfurt a. M: Klostermann.

Mihatsch, Wiltrud. 2016. "Type-Noun Binominals in Four Romance Languages." *Language Sciences* 53 (B):136-159. doi: 10.1016/j.langsci.2015.05.009.

Olofsson, Arne. 2016. "Svensk typ är inte unik." *Språktidningen* 2016 (1):58-62.

Rosenkvist, Henrik, and Sanna Skärlund. 2013. "Grammaticalization in the present. The changes of modern Swedish *typ*." In *Synchrony and Diachrony. A dynamic interface*, edited by Anna Giacalone Ramat, Caterina Mauri and Piera Molinelli, 313–337. Amsterdam: John Benjamins.

Velde, Freek van de, Hendrik de Smet, and Lobke Ghesquière. 2013. "On Multiple Source Constructions in Language Change [Special Issue]." *Studies in Language: International Journal Sponsored by the Foundation "Foundations of Language"* 37 (3):473-691.

Fátima Oliveira, António Leal & Maria Silvano

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Formal characteristics of incorporation: A typological study

Marieke Olthof
(University of Amsterdam)

This paper addresses the often unnoticed formal variation in elements involved in incorporation structures. Incorporation can be described as the inclusion of one lexical element in another lexical element such that they together constitute a single word (Mithun 1994:5024; Gerdts 1998:84; Haugen 2015:414). In Southern Tiwa, for instance, the noun *seuan* 'man' can be incorporated into the verb *mũ* 'see', as in (1):

(1) Noun incorporation in Southern Tiwa (Allen, Gardiner & Frantz 1984:294)
    Ti-seuan-mũ-ban.
    1sg.sbj>sg.obj-man-see-pst
    'I saw the/a man'.

Incorporated elements are generally assumed to have the form of a stem consisting of a single morpheme, like *seuan* in (1) (Baker 1988:71-72; Gerdts 1998:85; Haugen 2015:414). However, incorporated derived stems, inflected words and phrases occur in some languages as well (Iturrioz Leza 2001, Aikhenvald 2007, Muro 2009, Barrie & Mathieu 2016). This formal variation in incorporation structures has not been investigated systematically. Moreover, a unified theoretical account of simple and more complex incorporated forms is lacking, even though structures with simple and more complex incorporated elements are highly similar in appearance, share characteristics such as modifier stranding and possessor raising (Mithun 1984:856-859; Baker 1988:92-105; Rosen 1989:298-301; Barrie & Mathieu 2016), and, as the present research shows, are interrelated in terms of their distribution.

This study therefore investigates the forms of incorporated elements from a cross-linguistic perspective and proposes a unified treatment of the attested variation. The research takes a Functional Discourse Grammar (FDG) approach to incorporation, which seems able to capture the formal variation in incorporated elements in a single account. FDG is a functional linguistic theory that attempts to explain formal characteristics of languages on the basis of their communicative function (Hengeveld & Mackenzie 2008). The framework hypothesizes that languages form words, including incorporation structures, using word templates that specify which elements words may contain. Word templates can cross-linguistically include morphemes, derived stems, inflected words, phrases and clauses; hence, it is predicted that all these forms are able to be incorporated. However, individual languages are expected to vary in which of these forms they show in incorporation, based on language-specific template inventories. FDG further hypothesizes that the cross-linguistic distribution of the forms of incorporated elements follows an implicational pattern in that more complex forms, which seem to be incorporated less frequently, only occur in languages that also show all less complex, and apparently more frequently incorporated, forms, as expressed in (2):

(2) morphemes > derived stems > inflected words > phrases > clauses

The paper investigates the hypothesized formal variation in incorporated elements and their cross-linguistic distribution on the basis of a typological study of 30 genealogically and geographically diverse incorporating languages, analyzing data from reference grammars and articles on the languages' incorporation structures.

The results show large variation in the forms of incorporated elements: incorporated morphemes, derived stems, inflected words and phrases are found. Moreover, all languages investigated conform to the proposed hierarchy, thus supporting the unified treatment of simple and more complex incorporated elements.

References

Aikhenvald, Alexandra Y. 2007. Typological distinctions in word-formation. In Timothy Shopen (ed.), *Language typology and syntactic description*, vol. 3: Grammatical categories and the lexicon, 2nd edn., 1-65. Cambridge: Cambridge University Press.

Allen, Barbara J., Donna B. Gardiner & Donald G. Frantz. 1984. Noun incorporation in Southern Tiwa. *International Journal of American Linguistics* 50(3). 292-311.

Baker, Mark C. 1988. *Incorporation: A theory of grammatical function changing*. Chicago: Chicago University Press.

Barrie, Michael & Eric Mathieu. 2016. Noun incorporation and phrasal movement. *Natural Language & Linguistic Theory* 34(1). 1-51.

Gerdts, Donna B. 1998. Incorporation. In Andrew Spencer & Arnold M. Zwicky (eds.), *The handbook of morphology*, 84-100. Oxford: Blackwell.

Haugen, Jason D. 2015. Incorporation. In Peter O. Müller, Ingeborg Ohnheiser, Susan Olsen & Franz Rainer (eds.), *Word-formation: An international handbook of the languages of Europe*, vol. 1 (Handbücher zur Sprach- und Kommunikationswissenschaft 40(1)), 413-434. Berlin: De Gruyter.

Hengeveld, Kees & J. Lachlan Mackenzie. 2008. *Functional Discourse Grammar: A typologically-based theory of language structure*. Oxford: Oxford University Press.

Iturrioz Leza, José L. 2001. Inkorporation. In Martin Haspelmath, Ekkehard König, Wulf Oesterreicher & Wolfgang Raible (eds.), *Language typology and language universals*, vol. 1 (Handbücher zur Sprach- und Kommunikationswissenschaft 20(1)), 714-725. Berlin:De Gruyter.

Mithun, Marianne. 1984. The evolution of noun incorporation. *Language* 60(4). 847-894.

Mithun, Marianne. 1994. Word-formation: Incorporation. In Ronald E. Asher & Joy M.Y. Simpson (eds.), *The encyclopedia of language and linguistics*, vol. 9, 5024-5026. Oxford: Pergamon Press.

Muro, Alessio. 2009. *Noun incorporation: A new theoretical perspective.* Padova: Università degli Studi di Padova dissertation.

Rosen, Sara T. 1989. Two types of noun incorporation: A lexical analysis. *Language* 65(2). 294-317.

Pavel Ozerov

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Presentatives in Eastern Basque: A window to deixis and language contact

Manuel Padilla-Moyano

(University of the Basque Country & Université Bordeaux Montaigne)

Presentatives can be defined as "constructions which serve to introduce a new element into a discourse" (Trask 1993: 216); the term allows to overcome the previous taxonomic imbroglio (Julia 2015). Presentatives probably constitute a linguistic universal, whose some well-known examples are Latin *ecce*, French *voici/voilà*, Spanish *he aquí*, English *lo and behold*, Russian *вот/вон* or a number of particles in Semitic languages (Follingstad 2001; Cohen 2014).

Common Basque has two main presentatives based on the allative forms of locative adverbs; in addition, Souletin (Eastern dialect) has developed a different presentative construction. Thus, for the Latin clause in example (1a), common Basque employs the presentative *hona* (1b) and Souletin its own construction (1c), in which *haur* is thought to be the first degree demonstrative:

(1a)　*Ecce　ancilla Domin-i.*　　(Luc 1, 38)
　　　Behold handmaiden.nom　　Lord-gen
(1b)　*Huna　Jaun-aren　　neskato-a.* (Leiçarrague, 1571)
　　　here.all Lord-gen　　handmaiden-det
(1c)　*Haur　nai-zü-la　　Jinko-aren　　neskato-a.* (Belapeyre, 1696)

this († here) have.1sg-2pl-comp God-gen   handmaiden-det
'Behold the handmaiden of the Lord'

In this paper I will study Souletin presentatives in the light of an extensive corpus of old texts and show how the change in the deixis system and intensive contact with Gascon Occitan contributed to the form of presentative constructions.

From a diachronic point of view, the study of the Souletin presentative formula reveals that *haur* should not be analyzed as the first degree demonstrative, but the homophone ancient proximate locative adverb *haur* 'here', the etymon of historical *hor* 'there'. In fact, Basque deixis evolved from a proximate vs distal distinction to a three-degree system (Irigoyen 1997; Martínez-Areta 2013).

Furthermore, Souletin presentatives show another interesting element: the complement clause marker *-la* in the main clause, which is ungrammatical in the rest of Basque varieties. I shall argue that this peculiarity of Souletin is due to contact with Gascon. In particular, I will propose that the inclusion of the marker *-la* into the presentative is an adaptation of the Gascon expletive *que*, an obligatory particle in affirmative main clauses (Rohlfs 1970: §524). What is more, the Souletin presentative construction (2a) corresponds exactly to its Gascon counterpart (2b):

(2a) *Haur düzü -la anaia.*
   here (†)have.2sg.2pl comp brother.det

(2b) *Ací qu' avetz lo frair.*
   here comp have.2sg.2pl det brother
   'Here is my brother.'

References

Cohen, Eran, 2014, "Presentatives in comparative view: Biblical Hebrew and Neo-Aramaic", in Tal Davidovich, Ablahad Lahdo & Torkel Lindquist, *From Tur Abdin to Hadramawt. Semitic Studies. Festschrift in Honour of Bo Isaksson on the occasion of his retirement*, Harrassowitz Verlag, Wiesbaden, 23-38.

Follingstad, Carl M., 2001, *Deictic Viewpoint in Biblical Hebrew Text: A Syntagmatic and Paradigmatic Analysis of the Particle kī*, SIL International, Dallas.

Irigoyen, Alfonso, 1997 [1981], "*Haur hola zirola*. Elementos deícticos en la lengua vasca", *Opera selecta*, University of Deusto, Bilbao, 131-170.

Julia, Marie-Ange, 2015, "Les présentatifs français *voici*, *voilà* et latins *ecce*, *em*, *ēn* : essai d'étude comparative", in Eva Buchi, Jean-Paul Chauveau & Jean-Marie Pierrel (eds.), *Actes du XXVIIe Congrès international de linguistique et de philologie romanes (Nancy, 15-20 juillet 2013)*, Éditions de linguistique et de philologie, Strasbourg.

Martínez-Areta, Mikel, 2013, "Demonstratives and Personal Pronouns", in Martínez-Areta (ed.), *Basque and Proto-Basque. Language-Internal and Typological Approaches to Linguistic Reconstruction*, Peter Lang, Frankfurt, 283-321.

Rohlfs, Gerhard, 1970 [1935], *Le Gascon. Études de philologie pyrénéenne*, Max Niemeyer, Tübingen.

Trask, Robert L., 1993, *A Dictionary of Grammatical Terms in Linguistics*, Routledge, London/ New York.

Periphrastic causatives in Baltic: diachrony and areal context

Jurgis Pakerys

(Vilnius University)

Periphrastic causative constructions (PCCs) are based on free verbal forms dedicated to the expression of causation and can be subdivided into (1) factitive PCCs, when the event is actively caused, cf. English *make*, and (2) permissive PCCs, when the causation is passive, cf. English *let*. PCCs of many individual languages have been well-studied, while the analysis of genetically or areally related language groups is still rather rare (cf. Levshina 2015, Soares da Silva 2012, von Waldenfels 2012).

The Baltic languages present an interesting case of independent and contact-induced development in the context of neighboring Finnic, Germanic, and Slavic languages, which form the Circum-Baltic area (Koptjevskaja-Tamm & Wälchli 2001). The PCCs in Baltic were mostly described from the synchronic perspective (cf. Pakerys 2016 with further refs.) and their data are largely absent from cross-lingusitic studies.

In my talk, I would like to present the results of a diachronic study based on the data of 16–17th c. corpora of Old Prussian (OPr), Latvian (Latv), and Lithuanian (Lith), complemented with notes on Latgalian (Latg) and Lith dialects. The research focuses on the following questions: (1) paths of the semantic development of bases of PCCs, (2) areal context of these paths, (3) variation and development of causee marking.

The paths of semantic development of PCCs in Baltic can be subsumed under the following types: (1) 'give' > 'let' (Latv *dot*, Lith *duoti*, OPr *dāt*), (2) 'release' > 'let' (Latv *laist*, *ļaut*, Lith *leisti*), (3) 'leave' > 'let' > 'make' (Latv *likt*), (4) 'put' > 'make' (Latg *stateit*), (5) 'push/press' (Latv *spiest*, Latg *mīgt*, Lith *spausti*, *versti*), (6) 'get' > 'make' (Latv *piedabūt*). These paths are paralleld in Circum-Baltic area as follows: (1) in Finnic and Slavic (Finnish *antaa*, Estonian *andma*, Russian *da(va)t'*, Polish *da(wa)ć*, etc.), (2) in Finnic, Germanic, and Slavic (Estonian *laskma*, German *lassen*, Russian *dopustit'*, etc.), (3) in Germanic (as 'let' > 'make', German *lassen*, etc.), (4) in Finnic (Finnish *panna*, Estonian *panema*, etc.), (5) in Germanic (German *zwingen*, etc.), (6) in Germanic and Finnic (Swedish *få*, Finnish *saada*, etc.)

Variation and development of causee marking in Baltic PCCs can be explained as follows. Dative in PCCs, which are based on 'give', is original (< recipient), while in other constructions, it either completely replaced accusative, or is used alongside it. Introduction of dative is based on the correlation of it with non-implicative (permissive) manipulation, where the manipulee retains more control over the caused event, cf. Givón (2001: 66–68). PCCs with the newly introduced dative are based on Latv *laist*, *ļaut*, Lith *leisti* (all permissive), and Latv *likt*, which is factitive nowadays, but served as permissive at an earlier stage. The remaining factitive PCCs invariably mark their causee by the accusative.

References

Givón, Talmy. 2001. *Syntax: An introduction* 2. Amsterdam, Philadelphia: John Benjamins.

Koptjevskaja-Tamm, Maria & Bernhard Wälchli. 2001. "The Circum-Baltic languages: An areal-typological approach". In Östen Dahl & Maria Koptjevskaja-Tamm (eds.), *Circum-Caltic Languages* 2: *Grammar and Typology*, 615–750. Amsterdam, Philadelphia: John Benjamins.

Levshina, Natalia. 2015. "European analytic causatives as a comparative concept. Evidence from a parallel corpus of film subtitles". *Folia Linguistica* 49(2). 487–520.

Pakerys, Jurgis. 2016. "On periphrastic causative constructions in Lithuanian and Latvian". In Axel Holvoet & Nicole Nau (eds.), *Argument realization in Baltic*, 427–458, Amsterdam, Philadelphia: John Benjamins.

Soares da Silva, Augusto. 2012. Stages of grammaticalization of causative verbs and constructions in Portuguese, Spanish, French and Italian. *Folia Linguistica* 46(2). 513–552.

von Waldenfels, Ruprecht. 2012. *The grammaticalization of 'give' + infinitive: a comparative study of Russian, Polish, and Czech*. Berlin, Boston: De Gruyter Mouton.

Thomas Payne
<pdf>

No offence: no ellipsis, no sentence. The sentential status of "No X, no Y" constructions

Meike Pentrel

In 2010 a hacked highway sign displaying *No Latinos, No Tacos* resulted in some discussion regarding the intended message (Liberman 2010). Generally, the construction "no X, no Y" allows for two interpretations, conditionally (1) or conjunctively (2):

(1) *no farms, no food* (*"If there are no farms, there won't be food"*) (NOW, CA 2001 (11-01-27), The Register/Adviser)

(2) *no pork, no lard* ("there is no pork and also no lard" [indicating Halal shops])(NOW, SG 2016 (16-05-21), The Independent)

Often the context is crucial in interpreting the construction as a case of parataxis, coordination or hypotaxis. Given the right context (1) can also be interpreted as coordinating two clauses ("there are no farms *and* no food"). More convincing perhaps is (3) the interpretation of which changes when uttered by a parent as a warning or a chef as an apology (Horn 1992: 186).

(3) No vegetables, no dessert. (Horn 1992: 186)

This possible ambiguity may explain the discussion evolving around the hacked highway sign and its potential racist interpretation (*No Latinos and no tacos allowed* vs *No Latinos, thus no tacos* (Liberman 2010). A preliminary corpus search shows that the coordinated reading seems to be less common, which may explain the more dominant discussion of the conditional interpretation in linguistic literature. Declerck and Reed (2001: 407), for instance, refer to the construction as an "asyndetic paratactic conditional" or a "juxtaposition conditional", Cullicover (2010: 125) speaks of "sentential parataxis". No X, no Y is thus classified as a sequence of clauses lacking an explicit indication of their semantic relationship, for instance, with the help of subordinators. Interestingly, the addition of a third clause (as in *no shirt, no shoes, no service*) seems to lead less often to misinterpretations and the illocutionary force of these (conventionalized) non-sentences is usually understood (Elugardo & Stainton 2005: 7).

The aim of the present paper is twofold, on the one hand it will trace the historical origin of the "No X, no Y" formula and specifically look at its present productiveness (in addition to lexicalized expressions such as *no pain, no gain* (cf., e.g., Cappelle 2006)). On the other hand, it will discuss the sentential status from a construction grammar point of view, discussing its classification as a case of parataxis and whether assuming an underlying *if*-clause structure is useful, given the context ambiguity - especially in spoken language. If "No X, no Y" is seen as an incomplete utterance, this suggests that there are at least two different underlying structures or rather that we deal with two different constructions. In either case it seems necessary to determine the factors allowing for either interpretation in interaction and it may challenge the assumption of the existence of a dichotomy between complete and incomplete sentences.

References

Cappelle, Bert. 2006. Negation in the margin of grammar. In: Stéphanie Bonnefille and Sébastien Salbayre (eds.), La négation: Formes, figures, conceptualisation / Negation: Form, Figure of Speech, Conceptualisation. Actes du colloque de littérature et de linguistique des 8 et 9 octobre 2004 (Revue du Graat, 35.) Tours: Presses Universitaires François Rabelais, 403-425.

Cullicover, Peter W. 2010. "Parataxis and Simpler Syntax." In: Marie-José Béguelin, Mathieu Avanzi, and Gilles Corminbouf (eds.). *Actes di 1er Colloque International de Macrosyntaxe*, 121-138.

Declerck, Renaat & Susan Reed. 2001. *Conditionals: A Comprehensive Empirical Analysis.* Berlin: Mouton de Gruyter.

Elugardo, Reinaldo and Robert J. Stainton 2005. *Ellipsis and Nonsentential Speech.* Dordrecht: Springer.

Horn, Laurence R. 1992. "The Said and the Unsaid" *Proceedings from the Second Conference on Semantics and Linguistic Theory. SALT II*.

Liberman, Mark. 2010. No X No Y? Language Log. http://languagelog.ldc.upenn.edu/nll/?p=2351 (accessed 22 November 2016)

Grammatical gender in Heritage Argentine Danish: Stability and loss

Jan Heegård Petersen & Karoline Kühl
(University of Copenhagen)

Language change under the conditions of language contact is well attested. This paper deals with partial change of grammatical gender and gender agreement in Heritage Argentina Danish. This instance of language change is not a direct replication of the structures of the contact language, but nevertheless a consequence of linguistic attrition and/or incomplete acquisition due to unbalanced bilingualism that has its roots in the dominance of the majority language, Argentine Spanish. We follow Lohndal & Westergaard (2015: 1) in that we use the term gender agreement for the agreement on targets that are dependent on the noun , e.g. indefinite articles and adjectives.

Mainland Danish has two genders, common gender and neuter. Common gender (a historical merger of femininum and masculinum) is by far the most common. Mainland Danish assigns gender to nouns in the singular by a preposed indefinite article (common gender *en skole* 'a school', neuter *et tog* 'a train'), preposed demonstrative pronouns (common gender *den*, neuter *det*) and possessive pronouns in the singular (*min/mit* 'my', *din/dit* 'your', *sin/sit* 'his/hers'). The definite article in Danish is expressed by a postnominal affixal definite article, either *-en* (common gender, *skolen* school-the) or

-et (neuter, *toget* 'train-the'). Also attributive and predicative adjectives show agreement in gender in the singular.

In a preliminary study, we observe that some speakers of Argentina Danish show a pronounced 'overuse' of common gender in the preposed indefinite article, some variation in gender agreement in the possessive pronouns and less variation in demonstrative pronouns. However, grammatical gender in the speech of these speakers is remarkably standardlike in the affixal definite article. This indicates that grammatical gender and gender agreement are vulnerable in Heritage Argentina Danish, but that the contexts differ with regard to their stability or vulnerability. We can (based on the case study) set up the following stability hierarchy with regard to grammatical gender and gender agreement (growing stability left to right): Indefinite preposed article > preposed possessive pronouns > preposed demonstrative pronouns > affixal definite article. The remarkable standardlike production of grammatical gender in the affixal definite article has also been pointed out in two studies of Heritage American Norwegian (Lohndal & Westergaard 2015, Johannessen & Larsson 2015) which because of its close genetical relationship with Danish is an adequate means of comparison.

In our talk, we aim to explore the variation in gender agreement further, based on our Corpus of South American Danish (CoSAmDa) which by now consists of 858.000 words, representing 93 hours of speech by 81 speakers of Argentine Danish recorded in 2014–2015. Our approach and method is thus corpus-based, contrasting standardlike gender assignment with non-standardlike in preposed and postponed determiners and including noun phrases with attributive adjectives (which did not occur in the case study). We aim to disentangle structural factors and non-linguistic factors (such as age of language shift, language of schooling, literacy in Danish and contact with Mainland Danish). We will contrast our findings with the studies on other Germanic Heritage languages (cf. Kürschner & Nübling 2011).

References

Johannesen, Janne Bondi & Ida Larsson (2015) Complexity matters: On gender agreement in Heritage Scandinavian. In *Frontiers in Psychology* 6:1842. doi: 10.3389/fpsyg.2015.01842

Kürschner, Sebastian & Damaris Nübling (2011) The interaction of gender and declension in Germanic languages. In *Folia linguistica* 45, pp. 355–388.

Lohndal, Terje & Marit Westergaard (2016) Grammatical Gender in American Norwegian Heritage Language: Stability or Attrition? In *Frontiers in Psychology* 7: 344. doi: 10.3389/fpsyg.2016.00344

Nominalization in Amri Karbi

Nailya Philippova
(University of Helsinki)

This paper focuses on nominalization constructions in Amri Karbi (a Tibeto-Burman language spoken in North East India) in comparison to the corresponding constructions in other Tibeto-Burman languages. This study is based on author's field work in the area where Amri Karbi is spoken, the data consists of recordings of spoken narratives and conversations.

There are two nominalization processes, as distinguished by Genetti et al. (2008): (i) derivational nominalization, when grammatical nominals are derived from non-nominal lexical categories and (ii) clausal nominalization, when a noun phrase is derived from a clause, allowing it to function as a noun phrase in a larger syntactic context. Amri Karbi has both types of nominalizations – of the former, two

derivational structures for nouns and adjectives respectively; and of the latter, four clausal structures: complement clauses, adverbial clauses, relative clauses, and nominal complement clauses.

Similar to other Tibeto-Burman languages, Amri Karbi uses identical structures for nominal possession and relative clauses, which indicates that the language has no syntactic means used exclusively for relative clauses. In both relative clauses and possessive constructions, the head noun is usually marked by a possessive morpheme.

On the other hand, unlike many Tibeto-Burman languages, Amri Karbi does not allow the nominalized verbs to be used in participant nominalizations that denote entities involved in the action or state of the verb, without a head noun. However, with the additional nominalizer (which is used to derive nouns from other lexical categories, except verbs) the headless relative clauses can indeed function as participant nominalizations, but those structures are restricted to the inanimate participants. So these participant nominalizations arise from headless relative clauses, which are historically the common source for lexical nominalization.

References
Genetti, Carol, Bartee, Ellen, Coupe, Alec, Hildebrandt, Kristine & Lin, Yen-Jing. 2008. Syntactic aspects of nominalization in five Tibeto-Burman languages of the Himalayan area, *Linguistics of the Tibeto-Burman Area* 31 (2): 97-143.

A diachronic perspective on bare nouns in Mainland Scandinavian

Alicja Piotrowska & Dominika Skrzypek
(Adam Mickiewicz University, Poznań)

In recent literature, bare nouns have come to be recognized as members of the (in)definiteness paradigm in their own right, alongside articles, though in many descriptions, especially grammars or textbooks, they are considered to be indefinite (see e.g. Borthen 2003:10). As argued in literature on BNs in English, there are both definite and indefinite contexts in which BNs may appear.

However, while the development of articles, definite and indefinite, has been a subject of countless studies, the diachronic perspective on BNs is lacking. They seem to be considered remnants of older stages of language development.

A closer inspection of the range of contexts in which BNs are available shows this to be an oversimplification. The BNs in Mainland Scandinavian languages (Danish, Norwegian, Swedish) fall into three categories with respect to grammaticalization of (in)definiteness. The first comprises the residual structures, contexts which were sidestepped (Berezowski 2009) during the earlier stages of article grammaticalizations and which now are lexicalized and unproductive. These contexts include proverbs, bare binomials and fossilized PPs with antiquated case forms such as *till skogs* (Delsing 1993). The second category includes contexts which as yet lie beyond the grammaticalization of the articles (Greenberg 1978, Heine 1997, Givón 1981 etc.). *A priori* one can assume that in these contexts there will be no competition between the articles and BNs unless the grammaticalization of the articles is progressing and they are moving on to this stage of grammaticalization. If not, the contexts are as yet solely filled by BNs. In MSw they would include predicatives of the type Jan är lärare 'John is (a) teacher'. Finally, the third group is made of such uses where there exists a meaningful opposition between an article form and BN. These are the contexts where the BNs have undergone a grammaticalization of their own, against the backdrop of the grammaticalization of the articles, thus in

literature termed 'secondary grammaticalization' (Kabatek 2002). They include cases of objects without argumental status (Delsing 1993), which for Danish data are considered pseudo-incorporated (Asudeh & Mikkelsen 2000) as opposed to 'true' argumental objects which are always modified by an article.

While the first two groups are relatively easy to define, the third remains elusive. It is the group of contexts where the opposition is productive. And it is the group of contexts that should be studied diachronically.

The aim of this paper is an overview of diachronic changes in the referential properties of BNs in Mainland Scandinavian languages. Based on a corpora of texts spanning 300 years (1250-1550) and on previous studies of grammaticalization of the definite and indefinite articles, the paper seeks to explore the evolution of the BNs and the scope of their use. Beside empirical documentation of the process, the paper seeks to propose a grammaticalization chain parallel to the known grammaticalization chains of definite and indefinite articles, with regard to the BNs.

References

Asudeh, A., Mikkelsen, L.H. (2000). Incorporation in Danish: implications and interfaces. I: Cann, R., Grover, C., Miller, P. (eds.). A collection of papers on head-driven structure grammar. Stanford: Stanford University.

Berezowski, L. (2009). The Myth of the Zero Article. Continuum International Publication Company.

Borthen, K. (2003). Norwegian Bare Singulars. Doktorsavhandling från Norges teknisk-vitenskapelige universitet.

Delsing, L.-O. (1993). *The Internal Structure of Noun Phrases in the Scandinavian Languages*. Lund: University of Lund.

Givón, Talmy. 1981. On the development of the numeral 'one' as an indefinite marker. Folia Linguistica Historica II: 35-53.

Greenberg, J. 1978. How does a language acquire gender markers? In: Greenberg, J. (ed.) Universals of Human Language 3. Stanford: Stanford University Press, 47-82.

Heine, Bernd. 1997. Cognitive Foundations of Grammar. Oxford: OUP.

Kabatek, Johannes. (2002). Gibt es einen Grammatikalisierungszyklus des Artikels in der Romania? Romanistisches Jahrbuch 53, 56-80.

Zwischen Deixis und Anapher: Grammatikalisierungsphasen beim gotischen Protoartikel[5]

Natalia Pimenova

(National Research University Higher School of Economics, Moscow)

Das gotische Demonstrativpronomen *sa*, *þata*, *so* ('dieser, dieses, diese' bzw. 'jener, jenes, jene') in der artikelähnlichen Verwendung wird gemeinhin als Paradebeispiel für den Artikel im Anfangsstadium der Grammatikalisierung betrachtet. Dieses Anfangsstadium wird als Stadium des anaphorischen Artikels eingestuft (Hawkins 2004: 84; Heine & Kuteva 2006: 101-102). Trotz der offensichtlichen Obligatorisierung (die Belebtheitsskala entlang: Mensch > belebt > unbelebt > /abstrakt/) sind im

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Gotischen zahlreiche Schwankungen (Ø – *sa*) in der Verwendung des anaphorischen Artikels bezeugt, für die bisher keine Erklärung gefunden wurde.

Im Beitrag wird gezeigt, dass diese scheinbaren Inkonsequenzen durch pragmatische Gesetzmäßigkeiten gesteuert werden. Dabei wird eine Übergangsphase zwischen der deiktischen und anaphorischen Verwendung des Protoartikels ermittelt und anders als in: Lyons 1999: 160-161, 331-332, Hawkins 1984: 84-85, Mulder, Carlier 2012: 3 interpretiert.

I. Bei Gruppenbezeichnungen ('Jünger', 'Pharisäer' u. A.) bleibt der Protoartikel aus, wenn die pragmatische Zugänglichkeit des Referenten verletzt ist (Typen Ia, Ib). Beispiel für den Typ Ia (Wechsel des Handlungsortes, der Protoartikel fehlt bei 'seine Jünger'):

jah jainþro usgaggandans iddjedun þairh Galeilaian, jah ni wilda ei ƕas wissedi, unte laisida *siponjans* seinans jah qaþ du im (Mk 9,30-31) 'Und sie (Jesus und seine Jünger) gingen von da hinweg und zogen durch Galiläa, und er wollte nicht, dass es jemand wissen sollte. Denn er lehrte seine *Jünger* und sprach zu ihnen…'

Der regelmäßige Typ Ia spricht dafür, dass der anaphorische Protoartikel eine Empfindlichkeit gegenüber deiktischen Merkmalen aufweist: Beim Wechsel des Handlungsortes werden die bereits erwähnten Personen als [- sichtbar] gedeutet (Übergang von der Äußerungssituation mit dem Sprecher/ Beobachter zur sekundären/ narrativen Deixis mit dem Erzähler).

II. Bei einer Reihe von konkreten unbelebten Referenten mit niedriger Topikalität wird der anaphorische Protoartikel im Normalfall nicht verwendet. Der Protoartikel kann aber diese Referenten in denjenigen Kontexten markieren, die als «nicht-typisch» bzw. «nicht-erwartungsgemäß» gelten. Bei der narrativen Diskontinuität stellt der Protoartikel einen Rückbezug auf die vorher erwähnten Objekte her (Reaktivierung eines Referenten). Es liegt also nahe anzunehmen, dass das artikelähnliche Pronomen in solchen markierten Kontexten noch dem «gewöhnlichen», nicht grammatikalisierten anaphorischen Demonstrativpronomen (Diessel 1999: 96-98) nahe steht.

III. Gegen die traditionelle Annahme (Philippi 1997: 85-86; Heine & Kuteva 2006: 103) finden sich im Gotischen auch Einzelbelege für die Markierung der indirekten (assoziativen) Anapher. Die indirekte Anapher entsteht nur in den Kontexten, die für die «starke» Definitheit (und für den anaphorischen Artikel, vergleiche Schwarz 2012:7) charakteristisch sind.

Diessel, Holger. 1999. *Demonstratives: form, function and grammaticalization*. (Typological Studies in Language, 42). Amsterdam & Philadelphia: John Benjamins.

Epstein, Richard. 2002. The definite article, accessibility, and the construction of discourse referents. In *Cognitive Linguistics*, 12(4), 333-378.

Givón, Talmy. 1983. Topic continuity in discourse: The functional domain of switch-reference. In John Haiman & Pamela Munro (eds.), *Switch-reference and universal grammar*, 51– 82. Amsterdam & Philadelphia: John Benjamins 1983.

Givón, Talmy. 1984. *Syntax: A functional-typological introduction,* vol. I. Amsterdam & Philadelphia: John Benjamins.

Greenberg, Joseph H. 1978. How does a language acquire gender markers. In Joseph H. Greenberg, Charles A. Ferguson & Edith A. Moravcsik (eds.). *Universals of Human Language*, Volume 3: Word Structure, 47–82. Stanford, CA: Stanford University Press.

Haiman, John. 1983. On some origins of switch-reference marking. In John Haiman & Pamela Munro (eds.), *Switch-reference and universal grammar*, 105– 128. Amsterdam & Philadelphia: John Benjamins.

Hawkins, John A. 2004. *Efficiency and complexity in grammars*. Oxford: University Press.

Heine, Bernd & Kuteva, Tania. 2006. *The changing languages of Europe*. Oxford: University Press.

Himmelmann, Nikolaus P. 1996. Demonstratives in narrative discourse: a taxonomy of universal uses. In Barbara A. Fox (ed.), *Studies in Anaphora* (Typological Studies in Language 33), 205–254. Amsterdam & Philadelphia: John Benjamins.

Hodler, Werner. 1954. *Grundzüge einer germanischen Artikellehre* (Germanistische Bibliothek, 3. Reihe: Untersuchungen und Einzeldarstellungen). Heidelberg: Winter.

Lyons, Christopher. 1999. *Definiteness*. Cambridge: Cambridge University Press.

Mulder, De, Walter & Carlier, Anne. 2011. The grammaticalization of definite articles. In Bernd Heine and Heiko Narrog, *The Oxford Handbook of Grammaticalization*, DOI: 10.1093/ oxfordhb/ 9780199586783.013.0042. Oxford: Oxford University Press. Online Publication Date: Sep 2012.

Philippi, Julia. 1997. The rise of the article in the germanic languages In Ans van Kamenade & Nigel Vincent (eds.), *Parameters of morphosyntactic change*, 62–93. Cambridge: Cambridge University Press.

Pimenova, Natalia. 2014. K istorii i tipologii gramatikalizacii germanskogo artiklya: pragmatičeskije modeli v upotreblenii gotskogo protoartiklya [Zur Typologie und Geschichte der Grammatikalisierung des germanischen Artikels: pragmatische Modelle in der Verwendung des gotischen Protoartikels]. In *Acta Linguistica Petropolitana*, X (1). (Colloquia Classica et Indo-Germanica – VI). 403- 428 (Auf Russisch)

Schwarz, Florian. 2012. Different types of definites crosslinguistically. In *Language and Linguistics Compass*, Vol.7, Issue 10, 534-559

Variation of the conditional marker in Võro: The (contact-induced) change of the system

Helen Plado

(University of Tartu, Võro Institute)

Võro is a Baltic-Finnic language spoken in Southeast Estonia. The Võro-speaking area is bordered by Russian in the east, and Latvian to the south. Traditionally Võro is regarded as a dialect of Estonian. According to the last census (2011), there are 87 000 Võro speakers. However, Võro is under the strong influence of Standard Estonian and today there are no monolingual Võro speakers.

Võro has three conditional markers: *-(s)siq, -s,* and *-nuq* (1). *-(s)siq* is the prototypical conditional marker in Võro. The last is derived from the active past participle marker.

(1)   Kõnõlõ-siq/kõnõlõ-s/kõnõl-nuq   timä-ga.
        talk-cond   (s)he-com
        'I/you/(s)he/we/you/they would talk to him/her'

So far, there has been no usage-based research on the factors influencing the choice of form. However, some functional and areal variation has been noted: *-nuq* is mainly connected to eastern

areas of Võro (Pajusalu et al 2009, Iva 2007), where the (more frequent) use of the form has been seen as showing influence from Russian, which also uses a past tense form to mark conditional mood; according to Keem & Käsi (2002), the *nuq*-form is used to express suggestion, concession, or reproach. Additionally it is claimed that the short *s*-marker is new and used nowadays primarily because of the influence of Standard Estonian (Iva 2002). The current study tests the validity of these remarks in corpus data.

This study addresses two main research questions: 1) what factors most influence the choice of the conditional mood marker in Võro spoken in the 1930s-1960s, and 2) how are the conditional markers used in contemporary Võro?

In order to answer the first question, I have collected data from the Corpus of Estonian Dialects and from language data gathered during dialect interviews in the first half of the 20th century and published in two books. I applied Conditional Inference Tree analyses in R. The results demonstrate that the most important factor is verb type (auxiliary verbs are overwhelmingly marked by the shortest form -*s*), followed by tense and area. Remarkably, the *nuq*-form is most frequent not in the region neighboring Russian-speaking areas, but in the region next to Latvian-speaking areas. Latvian has a similar construction (Kalnača 2014); hence, there is reason to assume that the use of the *nuq*-form is influenced by Latvian.

For answering the second question, I collected data from a corpus of contemporary Võro. The corpus consists of both edited, written language and unedited, colloquial data. Preliminary analyses indicate that, compared to the traditional language, the system of conditional mood markers has changed. In the written data, the rather new *nuq*-form has become more frequent, and hypercorrection has resulted in the short marker -*s* being avoided even with frequently used auxiliary verbs. In spoken data, on the other hand, the use of the short *s*-marker has expanded.

References

Iva, Sulev 2007. Võru kirjakeele sõnamuutmissüsteem. Dissertationes philologiae Estonicae Universitatis Tartuensis 20. Tartu: Tartu Ülikooli Kirjastus.

Iva, Triin 2002. Eesti ühiskeele mõjutused võru keeles. – Väikeisi kiili kokkoputmisõq. Toim. Karl Pajusalu, Jan Rahman. Võro: Võro Instituut, 84–92.

Kalnača, Andra 2014. A Typological Perspective on Latvian Grammar. Warsaw, Berlin: De Gruyter Open.

Keem, Hella, Inge Käsi 2002. Eesti murded VI. Võru murde tekstid. Tallinn: Eesti Keele Instituut.

Pajusalu, Karl, Tiit Hennoste, Ellen Niit, Peeter Päll, Jüri Viikberg 2009. Eesti murded ja kohanimed. Tallinn: Eesti Keele Sihtasutus.

Constructional generalization from a cross-linguistic point of view: Prospective possession constructions in German and English

Kristel Proost

(Institut für Deutsche Sprache, Mannheim)

This talk examines to what extent prospective possession constructions are generalized in German and English. Prospective possession constructions are argument structure patterns which in both languages have the form NP V PP, with the PP being introduced by *nach*, *auf* or *um* in German and by *for* or *after* in English, and pair this form with a 'prospective possession'-meaning. Prospective possession is understood in terms of control, encompassing a wide variety of different scenarios where a concrete

animate entity, the prospective possessor, performs a concrete, mental or linguistic action in order to bring another entity, the prospective possessum, under his/her control. The latter typically is a concrete inanimate entity as in (1a-b), (2a), and (2d), but may also be a concrete animate entity as in (1c), and (2c), or an abstract entity like knowledge of or information on a particular topic as in (1d) (German examples are from DeReKo, English examples from BYU-BNC, cf. Davies 2004-):

(1)   a.   […] mit Kindern, die […] nach Essbarem suchen. ('… with children searching for food') (Mannheimer Morgen, 21.11.1994)

        b.   He's looking for the remains of a rucksack […]. (Central television newsscripts)

        c.   They're searching for police dogs. (Scottish TV, news scripts. u.p., 1993)

        d.   Ich […] erkundige mich nach der Bushaltestelle. ('I enquire after the bus stop.') (die tageszeitung, 30.09.1989)

(2)   a.   Die Frauen dagegen graben nach Wurzeln. ('The women instead are digging for roots.') (St. Galler Tagblatt, 16.06.1997)

        b.   Wenn wir alle nach Autonomie schreien […]. ('…, when we all cry for autonomy.') (Frankfurter Rundschau, 25.11.1997)

        c.   […] the accused was digging for a badger. (Daily Telegraph)

        d.   When he roared for food at midnight. (Forster, Margaret: Lady's maid. London: Chatto & Windus Ltd, 1990)

Constructional generalization is measured quantitatively as well as qualitatively. The type and token frequency of the construction are taken into account as the most important quantitative indicators of its level of generalization (cf. Goldberg 1995: 134). The former refers to the number of different verbs occurring with the construction, the latter to the number of instances found for each verb occurring with it in a corpus. Verbs relevant to the construction are searched for by queries in a tagged subcorpus of DeReKo (Archive_W_TAGGED_C) for German and in BYU-BNC for English. The qualitative investigation of the level of generalization focuses on coercion phenomena. These emerge when the 'prospective possession'-meaning is not part of the meaning of the verb and the PP is not an argument of the latter as illustrated in the examples in (2).

Quantitative and qualitative indicators of generalization are compared across German and English to identify core and periphery of the construction as well as its levels of schematicity.

Literature

Davies, Mark (2004-). BYU-BNC. Based on the British National Corpus from Oxford University Press. Available online at http://corpus.byu.edu/bnc/.

DeReKo (Deutsches Referenzkorpus) (2016). Deutsches Referenzkorpus / Archiv der Korpora geschriebener Gegenwartssprache 2016-II (Release vom 30.09.2016). Mannheim: Institut für Deutsche Sprache. www.ids-mannheim.de/DeReKo

Goldberg, Adele E. (1995). Constructions: A Construction Grammar Approach to Argument Structure. Chicago Univ. of Chicago Press.

Linguistic Variation across Pakistani Book Blurbs: A Multidimensional Analysis

Shahla Qasim & Aleem Shakir

(Government College Women University, Faisalabad, Pakistan & Government College University, Faisalabad, Pakistan)

The study aims at exploring the patterns of linguistic variability in a corpus of Pakistani book blurbs. Multidimensional analytical approach postulated by Biber (1988) was used as a methodological tool. This approach emphasized the distributional patterns of co-occurring linguistic features and their shared communicative functions in register analysis. A standardized corpus of Pakistani book blurbs was built by using online and print sources. The corpus comprised total 1311 book blurb texts, categorized with respect to three independent situational variables; Publisher location (to find out linguistic variation across Pakistani blurbs provided by foreign publishers and local publishers), 2. Publication medium (to explore linguistic variation between traditional print book blurbs and online book blurbs), 3. Literary source (to discover linguistic variation between blurbs written for fiction and non-fiction books). Data was collected in two phases. Online book blurbs were collected from websites of different local and foreign publishing houses. A java program was written to extract blurb description and other important required information about the title of book, name of author, publication year and the name of publishing house. Print book blurbs for Pakistani books were collected from the main libraries of different educational and public institutions. To assign codes to the categories, a Java script was written. Methods implemented within Java String Class were used for text manipulation of blurb data. Methodological process involved automatic tagging of linguistic features, acquiring raw frequencies of linguistic features, turning raw scores into normalized frequencies, standardization of normalized frequencies, factor analysis, computation of dimension scores and application of ANOVAs in collaboration with Tukey HSD post hoc tests. Multidimensional Analysis (MD Analysis) was performed in two phases. In the first phase, sample data was compared on five linguistic dimensions, identified by Biber's (1988) MD analysis. These five dimensions were: 1) Involved versus Informational Production, 2) Narrative versus Non-Narrative Concerns, 3) Explicit versus Situation-Dependent Reference, 4) Overt Expression of Argumentation/Persuasion, and 5) Impersonal/Abstract versus Non-Impersonal/ Non-Abstract Style. Blurbs were found to be informational texts, reflecting non-narrative concerns by employing explicit references and non-persuasive and non-abstract style of expression. In the second phase, data was compared on four dimensions of new MD analysis, generated as a result of applying new factor solution matrix on the whole blurb data. The four new dimensions were: 1) Abstract Informational Description versus Concrete Human Focus; 2) Interactive Stance versus Formal Reportage of Facts; 3) Informational Density versus Elaborated Expression; and 4) Expression of Personal Stance and Judgement. The dimensions were further interpreted functionally to asses accurately the linguistic characterization of the blurb data. ANOVAs were performed to identify statistically significant differences across book blurbs. In order to determine where these differences actually lie across specific categories of book blurbs, a post hoc analysis was conducted using Tukey HSD pairwise mean comparisons. The results revealed that the language of Pakistani book blurb register considerably varied across its categories. Of the three variables, literary source was found to be the most potential source of variation as it accounted for maximum shared variance of the whole data. The study provides an important insight into the nature of linguistic variation across different categories of Pakistani book blurbs on textual dimensions.

References

Biber, D. (1988). *Variation across Speech and Writing*. Cambridge: Cambridge University Press.
Biber, D., & Conrad, S. (2009). *Register, Genre and Style*. Cambridge. Cambridge University Press.

Biber, D., Johnson, S., Leech, G., Conrad, S., & Finegen, E., (1994). Longman grammar of spoken and written English, London: Longman.

Conrad, S., & Biber, D. (2001). *Variation in English: Multi-dimensional studies*. Longman, Pearson: Education Limited.

The effects of telicity, dinamicity and punctuality in the acquisition of Spanish past verbal morphology

Lucía Quintana Hernández
(Universidad de Huelva, Spain)

According to the Lexical Aspect Hypothesis (Andersen 1986, Andersen and Shirai 1996), the use of past verbal morphology by learners of Spanish as L2 shows that the acquisition of grammatical aspect is biased by lexical aspect in terms of Vendler (1957), but many studies on this topic have shown that not all learners behave in the same way. González (2003) found out that Dutch learners of Spanish are biased by the terminative-durative contrast, based on Verkuyl's typology (1993). Recently, Domínguez et al. (2013) found that dynamicity, and not telicity, affects the use of Spanish past verbal morphology. The aim of this work is to refine the Lexical Aspect Hypothesis in terms of aspectual features (telicity, dynamicity, punctuality), and not lexical classes. We claim that the use of the perfective past tense (Preterit) is biased by the contrast [dynamic/stative] at first stages of acquisition, while the imperfective past tense (Imperfect) is biased by the [punctual/durative] and the [telic/atelic] contrasts through the whole process of acquisition. To reach our goal, data was coded having into account these lexical aspectual features, i.e. all predicates were first classified according to telicity, second according to dynamicity and finally according to punctuality. We calculated the frequency of use of Preterit and Imperfect for the three lexical aspectual contrasts.

To test our hypothesis we propose a semi-controlled written production task. Four groups of English native learners of Spanish of different proficiency levels (A2, B1, B2, C1) and a group of native speakers of Spanish were tested to find out which aspectual features bias their production, and whether the influence of lexical aspectual features is attested only at first stages of acquisition, as argued by previous studies. The data collection took place in a classroom environment, where participants were asked to complete a productive task after watching a mute video. Learners and native speakers of Spanish were given instructions to retell the story using past tenses. Our results show first that Preterit is preferred by all groups to complete this task, and second, that learners are biased by dynamicity when using the Spanish Preterit (Domínguez et al. 2013) at first stages of acquisition, i.e. learners prefer dynamic predicates such as *write* or *drink coffee* with Preterit. C1 results are comparable to Spanish native speakers, i.e. they do not make mistakes. Third, students' use of Imperfect is influenced by the [punctual/durative] contrast, i.e. they prefer the Imperfect with stative and durative predicates such as *be* and *smile* respectively at all proficiency levels, which shows that these contrasts are still effective late in the acquisition process. Interestingly, C1 results show that advanced learners keep making mistakes when using the Imperfect. In addition, all groups of learners also prefer the Imperfect with atelic predicates, but telicity does not influence the use of the Preterit, against previous proposals on the effect of the telicity feature (Slabakova 2001).

In conclusion, we argue that lexical aspectual contrasts influence the use of past verbal morphology at different stages and in diverse ways. Learners pay attention to different lexical aspectual contrasts when using the Preterit and the Imperfect. The Preterit is biased by dynamicity at first stages of

acquisition but not at advanced levels, while the Imperfect is strongly influenced by the contrast [punctual/durative] at all stages of acquisition. The Imperfect is harder for English native learners of Spanish because they do not have an equivalent tense in their first language. Future research will show whether the L1 might predict the influence of lexical aspectual features in the use of the verbal morphology of the second language (González & Quintana Hernández 2017).

References

Andersen, R. 1986. Interpreting data: second language acquisition of verbal aspect. Unpublished manuscript, University of California, L.A.

Andersen R. & Shirai Y. 1996. Primacy of aspect in language acquisition. In *Handbook of Second language Acquisition*, W. Ritchie and T. Bathia (eds) 527-570. San Diego: Academic Press.

Domínguez, L., Tracy-Ventura N., Arche, M., Mitchell R. & Miles F. (2013). The role of dynamic contrasts in the L2 acquisition of Spanish past tense morphology. *Bilingualism: Language and Cognition*, CUP, pp. 558-577.

González, P. (2003). *Aspects on Aspect. Theory and Applications of Grammatical Aspect in Spanish*. Utrecht: Utrecht Institute of Linguistics.

González, P. & Quintana Hernández, L. (2017). Inherent Aspect and L1 Transfer in the Acquisition of Spanish Grammatical Aspect (under review).

Slabakova *Telicity in the second language*. Language Acquisition and Language Disorders. Amsterdam: John Benjamins.

Vendler, Z. (1957).Verbs and Times. *Philosophical review* 66, pp.143-160.

Verkuyl, H. (1993). *A theory of aspectuality. The interaction between temporal and atemporal structure*. Cambridge studies in linguistics 64. Cambridge: CUP.

Non-canonical word order in L1-acquisition

Teodora Radeva-Bork
(University of Potsdam)

One of the main properties of Slavic languages is their syntactic flexibility, which provides a great level of variability in the ordering of sentence constituents. Variability is especially interesting from the perspective of first language acquisition with regards to the kind of permutations that can be found in the early stages of linguistic development.

This paper deals with the monolingual L1-acquisition of non-canonical word orders in Slavic, and more specifically with the alternations between Verb-Object (VO) and Object-Verb (OV) word orders, both presenting licit combinations in the target grammar. A data survey of Russian, Ukrainian, Bulgarian, Serbo-Croatian and Czech (Avrutin&Brun 2001, Mykhaylyk 2012, Radeva-Bork 2012, Ilić&Deen 2004, Smolík 2015), examines how children aged 1;7-6;0 deal with VO-OV alternations in naturalistic and elicitation contexts.

I show that object scrambling and the basic operation VO-OV movement in Slavic emerge early, around the age of 2;5, and interact with object type (full/weak pronominal or full DP) and the semantic feature of specificity. Children scramble at higher rates, and in an adult-like manner, in definite/specific contexts than in indefinite/non-specific contexts. A contrast between pronominal scrambling and full DP scrambling can be established. In Ukrainian, for example, pronominal scrambling is mandatory in adult grammar, while full DP scrambling is optional. In child grammar,

both types of scrambling are optional until the age of around four to five. Children hardly ever scramble objects that cannot scramble in the target grammar. On the contrary, to the extent that they make mistakes, these typically involve scrambling too little in conditions where scrambling is obligatory (or very frequent) in the adult language.

In a broader cross-linguistic context, I show that VO-OV alternations are acquired earlier in Slavic than object scrambling in Dutch and German and object shift in Mainland Scandinavian, which may be due to varying frequency effects in the input. Finally, from a Slavic perspective, non-canonical word orders in child grammar seem to show a disassociation between comprehension processing difficulties and ease of production.

References

Avrutin, S., D. Brun. 2001. "The expression of specificity in a language without determiners: Evidence from child Russian." In Do, A., L. Dominguez and A. Johansen, (eds.). *Proceedings of the 25th Annual Boston University Conference on Language Development.* Somerville: Cascadilla Press, 70-81.

Ilić, T., K. Deen. 2004. "Object raising and cliticization in Serbo-Croatian child language." In van Kampen, A. and S. Baauw (eds.). *Proceedings of GALA 2003*. Utrecht: LOT, 235-243.

Mykhaylyk, R. 2012. "Factors contributing to child scrambling: Evidence from Ukrainian." *Journal of Child Language* 39 (3): 553-579.

Smolík, F. 2015. "Word order and information structure in Czech 3- and 4-year-olds' comprehension." *First Language* 35(3): 237-253.

Radeva-Bork, T. (2012) *Single and double clitics in adult and child grammar*. Peter Lang.

Lexicography for Specific Purposes in Functional-Cognitive Space

Geraint Paul Rees & Janet DeCesaris

(IULA – Institut de Lingüística Aplicada, Universitat Pompeu Fabra)

It is generally understood that verb meaning can indicate certain rhetorical relations. For example, *cause* and *trigger* both indicate a causal relation (Taboada, 2006). The present paper examines the use of rhetorical relations expressed by verb meaning across three corpora each representing language from a different academic domain in order to highlight the similarities and divergences in the use of such rhetorical relations in professional writing. We aim to determine whether the growing trend toward discipline-specificity in English for Academic Purposes is justified as far as rhetorical relations are concerned. In doing so the paper also considers the extent to which functionalist, cognitivist and constructionist accounts of such relations can be integrated from a lexicographic standpoint.

The paper reports on a corpus-based study which employs Corpus Pattern Analysis (CPA) (Hanks, 2004), a lexicographical technique for mapping meaning onto text, to examine rhetorical relations expressed by verb meaning. This is achieved through the examination of an eight-million-word corpus of academic journal articles written in English taken from the three subject domains of History, Management, and Microbiology. Insomuch as the theoretical underpinning of CPA, *The Theory of Norms and Exploitations* (Hanks, 2013), chimes with functional, cognitivist, and constructionist approaches to the description of language, this study explores the possibilities that the construct of functional-cognitive space (Butler & Gonzálvez-García, 2005) offers to lexicography.

From a practical viewpoint, the study has implications for the language teaching and publishing industries, as examination of rhetorical relations expressed by verb meaning across academic disciplines should lead to useful pedagogical insights for the treatment of such relations in second language acquisition and lexicography.

References

Butler, C. S., & Gonzálvez-García, F. (2005). Situating FDG in functional-cognitive space: An initial study. In J. L. Mackenzie & M. A. Gómez-González (Eds.), *Studies in Functional Discourse Grammar* (pp. 109–158). Berne: Peter Lang.

Hanks, P. (2004). Corpus Pattern Analysis. (G. Williams & S. Vessier, Eds.), *Proceedings of the Eleventh EURALEX International Congress*. Universite de Bretagne-Sud, Lorient: EURALEX.

Hanks, P. (2013). *Lexical Analysis: Norms and Exploitations*. Cambridge, Mass: MIT Press. Taboada, M. (2006). Discourse markers as signals (or not) of rhetorical relations. *Journal of Pragmatics*, *38*(4), 567–592. https://doi.org/10.1016/j.pragma.2005.09.010

The origin and diachronic evolution of plural dative clitic pronouns in Old Catalan. A qualitative and quantitative analysis

Josep E. Ribera

(Universitat de València)

Plural dative clitic pronouns in Old and Modern Catalan exhibit an almost unparalleled situation among the Romance languages, since a form syncretic with the plural masculine accusative pronoun *los* (< ĭllos) is adopted. This dative pronoun coexisted in Old Catalan with the pronoun *lur* (or *lor*) and its subsequent variants *lurs* and *lus*, all of them etymological reflexes of the Latin genitive ĭllorum, like Old French and Old Occitan *lor* (Badia, 1981; Moll, 2006; Batlle *et al.*, 2016).

Coromines's (1971) classic hypothesis considers that the dative pronoun *los* is the final result of a single etymological process starting from the Latin genitive ĭllorum. This etymon gave birth to the pronoun *lur*, which due to its plural meaning adopted the analogical plural ending –s (*lurs*). As a result of the phonetic reduction of the consonant group [rs] >[s], *lurs* led to the form *lus* (like in bŭrsam > *bossa*) and finally resulted in the form *los* (Coromines, 1971; 1980 -2001).

This study is based on the data obtained from the *Corpus Informatitzat de Català Antic* (CICA) and intends to discuss the aforementioned hypothesis with respect to three main questions:

a) May the quantitative data regarding the several forms of plural dative clitic pronouns in Old Catalan corroborate Coromines's hypothesis?
b) Instead, in case of proposing the coexistence of two etymologically different pronouns, i.e., *lur > lurs > lus* (< ĭllorum) and *los* (< ĭllos), what linguistic constraints led to the adoption of an ostensibly masculine accusative pronoun for the expression of both genders in the dative?
c) Is the situation of Catalan actually unique among the Romance languages?

In order to answer these questions, the various forms of the plural dative clitic pronouns between the 11th and the 16th centuries have been identified and quantified, and the quantitative results have

been statistically compared and analyzed. The solutions in the rest of Romance languages are also taken into account.

The results seem to corroborate the evolutionary line *lur > lurs> lus*. However, they make it difficult to accept the most controversial aspect of Coromines's hypothesis: that the dative *los* is the final step in the evolution of ĭllorum. In fact, the data show that *los* and *lur* coexisted from the 11th century. The clitic *los* is the most usual and outnumbers *lur* and its descendants at least from the second half of the 13th century, with an overwhelming dominance from the second half of the 14th century. Conversely, *lur*, *lurs* and *lus* show meager frequencies from the 15th century and disappear in the language of the 16th century. Moreover, it is paradoxical that the supposed intermediate forms in Coromines's hypothesis (*lurs* and *lus*) do not occur until the second half of the 13th century, whereas *lur* and *los*, assumed to be the beginning and the end of the process, respectively, show high frequencies already in the 11th and 12th centuries.

Considering these quantitative results, it is not bold to suggest the existence of two etymologically distinct plural dative clitic pronouns from the proto-Catalan period: one derived from the genitive ĭllorum and the other one from the accusative ĭllos by means of a multicausal syncretic process enhanced by morphosyntactic constraints. This last one has prevailed in Modern Catalan, as it is the case in part of Modern Occitan.

References

Badia, Antoni Maria (1981): *Gramàtica històrica catalana*. València: Tres i Quatre.

Batlle, Mar, Marti i Castell, Joan, Moran, Josep & Joan Anton Rabella (2016): *Gramàtica històrica de la llengua catalana*. Barcelona: Publicacions de l'Abadia de Montserrat.

Coromines, Joan (1971): *Lleures i converses d'un filòleg*. Barcelona: Club Editor.

Coromines, Joan (1980-2001): *Diccionari etimològic i complementari de la llengua catalana*. Barcelona: Curial/ La Caixa.

Moll, Francesc de Borja (2006): *Gramática histórica catalana*. Madrid: Gredos.

Torruella, Joan (dir), Pérez Saldanya, Manuel & Josep Martines (2009): *Corpus Informatitzat del Català Antic (CICA)*. [on line]. URL http://cica.cat/ [Access: January, 15th, 2014].

Roman Ronko

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Unaccusative sentences with preverbal subjects in Sentence-focus contexts: A corpus-based study for Italian and Spanish

Chiyo Nishida & Cinzia Russi
(The University of Texas at Austin)

There is general consensus across syntactic and functional frameworks that subject word order in Romance unaccusative sentences interacts with information structure (Lambrecht 1994, Casiélles-Suarez 2004, Marandin 2010; *inter alia*). For instance, the verb-subject (VS) order is associated with

the Sentence Focus category (SF, Lambrecht 1994), which responds to questions like *What's new*? This claim is supported by (1a, b) from Italian and Spanish corpora.

(1)   a.   *Ogni giorno* [$_V$ ***muoiono***] [$_S$ ***3 persone***] *per incidenti sul lavoro*.
            'Every day 3 people die due to accidents at work'
       b.   *Cada día* [$_V$ ***mueren***] [$_S$ ***menos personas***] *de sida*.
            'Each day fewer people die of AIDS.'

However, data from corpora also reveal that the SV order commonly occurs with unaccusative verbs like *morire/morir* 'to die' in SF contexts, as illustrated in (2).

(2)   a.   [$_S$ ***Quattro persone***] [$_V$ ***muoiono***] *per la caduta di una slavina sul monte Tantanè*.
            'Four people die due to the fall of a snowslide on mount Tantanè.'
       b.   [$_S$ ***Dos jóvenes***] [$_V$ ***mueren***] *arrastrados por una fuerte riada en Huesca*.'
            'Two young men die dragged by a strong flood in Huesca.'

Both sentences appear in newspaper headlines and the preverbal subject instantiates neither a topic or preposed (contrastive) focus.

In view of the data in (1) and (2), this paper presents a corpus study investigating two questions: a) Are there any linguistic properties that significantly favor the VS over the SV order in a SF context? and (b) is there a specific function associated with SV sentences?

Using two verbs from each language (*morire/morir* 'to die' and *arrivare/llegar* 'to arrive'), 265 tokens of SV and 474 tokens of VS sentences were collected from the online corpora *CORIS* (Italian) and *CREA* (European Spanish). The two groups of sentences were compared with respect to eight properties: a) clause type (root/complement/relative/adverbial), b) presence/type of clause-initial adverbials, c) presence/type of postverbal adverbials, d) definiteness of the subject, e) the subject being modified by a number (see 1a, 2a and 2b), f) genre, g) whether in headline or not, and h) language.

Preliminary findings of the statistical analysis (binominal logistic regression) shows that all predictors except genre and language are significant. In essence, the SV order is most favored in root clauses with no clause-initial adverbial but with postverbal adverbials, particularly of descriptive type – manner, causal, etc. in addition to temporal/locative type. Moreover, the SV order is disfavored by definite subjects, thus, mostly restricted to indefinite subjects. Finally, odds of the SV order increase when the sentence appears in newspapers headlines and the subject is modified by a number.

Based on these findings, we propose that SV unaccusative sentences in SF contexts provide thetic judgments (Kuroda 1972) like VS sentences; however, they are used to evoke a more complete and vivid, flash-like image of what happened. In order to incorporate more adverbials in postverbal position to provide more descriptive details, the subject is "accommodated" into the preverbal position. This explains why headlines favor the SV order.

This study demonstrates through naturally-occurring data that more factors besides syntax and information structures play a key role in determining the subject word order in unaccusative sentences.

References

Casielles-Suárez, Eugenia. 2004. *Syntax-Information Structure Interface*. London: Routledge.

Kuroda, S.–Y. 1972. The categorical and the thetic judgment. *Foundations of Language* 9(2). 153–185.

Lambrecht, Knud. 1994. *Information Structure and Sentence Form*. Cambridge, UK: Cambridge University Press.

Marandin, Jean-Marie. 2010. *Subject inversion and discourse in Romance. Fundamental Issues in the Romance Languages*, ed. by Danièle Godard, 319–367. Stanford, CA: CSLI Publications.

Corpora
Corpus di Italiano Scritto (*CORIS/CODIS*). http://corpora.dslo.unibo.it/coris_ita.html
Corpus de Referencia del Español Actual (*CREA*), Spanish Royal Academy.
       http://corpus.rae.es/creanet.html

Pre-Germanic borrowings in Finnic and the question of Germanic and Finnic linguistic homelands

Janne Saarikivi & Sampsa Holopainen
(University of Helsinki)

In our presentation we discuss the question of Finnic and Germanic linguistic homelands, i.e. the historical core areas of these language groups, especially in the light of the hypothesis of Pre-Germanic borrowings in Finnic.

The presentation is related to the tradition of etymological research into Indo-European borrowings in Finnic languages (cf. Thomsen 1869, Kylstra 1961; Hofstra 1985, Koivulehto 1999, LÄGLOS, Junttila 2015) with a special reference to the hypothesis that Finnic (and, probably also Saami) languages have, in addition to Germanic and Baltic borrowings, also borrowings from an archaic Northwestern Indo-European language. Some proposed etymologies of this kind are Indo-European *bhl(e)h1 tó- (> Old Norse blað, Old English blæd, Old High German blat) 'leaf, blade' → Pre-Finnic *lešti > Finnish lehti 'leaf, blade' (Koivulehto 2002: 584) and Proto-Indo-European *ǵn̥ h3i̯o- > Pre-Germanic *gn̥ ni̯o- (> Old Norse kyn) 'wonder' → Pre-Finnic *konïš > Finnish kone 'magic' (Koivulehto 2002: 586).

There are several reasons to reconsider this hypothesis. For the first, the newly published Proto-Germanic etymological dictionary (Kroonen 2013) with many words of unknown origin points to the need of revisiting the research paradigm on the origins of Germanic. For the second, Finnic is known to represent hundreds of borrowings from Proto-Germanic and Proto-Baltic (LÄGLOS; Junttila 2015), but these borrowings are not always taken into consideration when discussing location and dating of Proto-Germanic. The prevailing hypothesis that the Proto-Germanic was spoken in Northern Germany and Denmark is quite problematic, taking into account the abundance of the Proto-Germanic word stock in Proto-Finnic that was spoken, with all likelihood, on the southern shore of the Gulf of Finland.

In our presentation, the hypothesis of the Pre-Germanic borrowings in Finnic is put in to new areal-linguistic perspective, especially from the point of view of taxonomic and areal linguistic research of the Uralic languages. We will discuss the (relatively scarce) evidence on early borrowings pointing to the possibility that the early stages of (Pre-)Germanic were spoken somewhere in the Eastern Baltic. From there, it would have been replaced in the Northern Germany and Denmark, where it acquired the Proto-Germanic substrate vocabulary (Kroonen ibid., Schrijver 2002). Here, we shall also discuss some possible cases of borrowings from Uralic languages to Proto-Germanic, and the possibility of Finnic and Germanic representing common words from unknown substrate.

In conclusion, we point to the interrelatedness of location and dating of Proto-Germanic and Proto-Finnic. There are few reconstructed protolanguages in Europe with such intensive contacts, and the

palaeolinguistic evidence suggesting nearly identical cultural characteristics of their prehistoric communities. Thus, the location and dating of these two protolanguages is largely dependent on each other.

References

Hofstra, Tette 1985: Ostseefinnisch und Germanisch. Frühe Lehnbeziehungen im nördlichen Ostseeraum im Lichte der Forschung seit 1961.

Junttila, Santeri 2015: Tiedon kumuloituminen ja trendit lainasanatutkimuksessa. Kantasuomen balttilaislainojen tutkimushistoria. Helsinki: Helsingin yliopisto.

Kallio, Petri 2012: The Prehistoric Germanic Loanword Strata in Finnic. Riho Grünthal & Petri Kallio (eds.): *The prehistoric linguistic map of Northern Europe.* Mémoires de la Société Finno-Ougrienne 266. Helsinki: Société Finno-Ougrienne.

Koivulehto, Jorma 1999: Verba mutuata. Quae vestigia antiquissimi cum Germanis aliisque Indo-Europaeis contactus in linguis Fennicis reliquerint. Mémoires de la Société Finno-Ougrienne 237. Helsinki: Société Finno-Ougrienne.

Koivulehto, Jorma 2002: 2002: Contact with Non-Germanic Languages II: Relations to the East. – Oskar Bandle, Lennart Elmevik & Gun Widmark (eds), The Nordic Languages: An International Handbook of the History of the North Germanic Languages 1. Berlin. 583–594.

Kroonen, Guus 2013: Etymological Dictionary of Proto-Germanic. Brill.

Kylstra, A. D: 1961: Geschichte der germanisch-finnischen Lehnwortforschung. van Gorkum.

LÄGLOS = Lexikon der älteren germanischen Lehnwörter in den ostseefinnischen Sprachen I-III. Hrsg. A.D. Kylstra, Sirkka-Liisa Hahmo, Tette Hofstra, Osmo Nikkilä. Amsterdam: Rodopi. 1991-2012.

Schrijver, Peter 2002: Lost languages of Northern Europe. Christian Carpelan & Asko Parpola & Petteri Koskikallio (eds.): Early Contact between Uralic and Indo-European. Linguistic and archaeological considerations. Papers presented at an international symposium held at the Tvärminne research station of the University of Helsinki 8-10 Jan., 1999. Mémoires de la Société Finno-Ougrienne 242. Helsinki: Société Finno-Ougrienne.

Thomsen, Vilhelm 1967 (1888): On the Influence of Germanic languages on Finnic and Lapp. A Historical Linguistic Inquiry. Bloomington: Indiana University.

Measuring grammaticalization in Chinese: A quantitative approach to grammaticalization in Chinese and how it compares to English

David Correia Saavedra & Linlin Sun

(University of Neuchâtel, Switzerland / University of Antwerp, Belgium & Johannes Gutenberg University of Mainz, Germany)

Grammaticalization is widely conceived as a gradual phenomenon (Traugott & Trousdale 2010), which means that some elements are more grammaticalized than others. In order to determine the degree of grammaticalization of a given element, several parameters have been suggested (Lehmann 2002, Hopper 1991), such as its length, its syntactic scope, or its relative degree of morpho-syntactic fixation. For example, elements that are strongly grammaticalized tend to be phonologically shorter,

more fixed syntactically, and generally more dependent on other elements. This paper attempts to implement such features through the use of corpus data and quantitative analytical methods.

Chinese is particularly challenging for detecting products of grammaticalization, as the properties of the grammaticalized items in this language generally do not involve any form changes as suggested by the parameters like phonological attrition (Bisang & Sun. forthc.). Also, the semantic change involved in Chinese grammaticalization tends toward an 'accretion of more meaning' over time (A>A,B>A,B,C…) (Xing 2015), instead of following a 'recessive' pattern (A>A,B>B) (Traugott & Dasher 2002, Heine et al. 1991). Our aim is to develop a quantitative measure which can quantify the degrees of grammaticalization of any given element in Chinese. A binary logistic regression model (Gries 2009) is used to achieve this goal and to compute a score between 0 (lexical/non-grammatical) and 1 (highly grammatical) for any given element.

The Lancaster Corpus of Mandarin Chinese is used to train the model. 400 lexical items (e.g. nouns, verbs, adjectives) and 400 grammatical items (e.g. prepositions, auxiliaries, particles, classifiers) were selected in order to train the binary logistic regression model to distinguish between the two groups. Building on Bybee & Thompson (1997), Lehmann (2002), and Pierrehumbert (2012), four quantitative factors were taken into account: (1) token frequency, (2) collocational diversity, i.e. an element's freedom to occur in different contexts, (3) colligational diversity, i.e. the possible parts of speech that appear in proximity to a given element (either left or right), and (4) dispersion, i.e. how evenly an element is distributed in a given text. These factors are used as parameters of the binary logistic regression model. Each factor has its own contribution to the model and helps compute our grammaticalization score. For instance, a higher token frequency results in a higher grammaticalization score.

We will discuss whether and to what extent these variables are useful in determining the degrees of grammaticalization in Chinese, as compared to a previous similar study done on the British National Corpus. The results suggest that frequency is one of the most important variables in both cases, but the collocation and colligation variables as well as their left/right calculations contributed very differently to the measures in the two languages regarding their different branching effects. Our objective is to investigate the relative importance of each variable in both languages when it comes to measuring the degree of grammaticalization of a given element. We also want to discuss whether there are significant methodological differences that should be taken into account for further improving the detection of grammaticalized items from typologically different languages.

References

Bisang, Walter & Sun, Linlin. (forthc.). Grammaticalization in Chinese. Mouton de Gruyter.

Bybee, Joan & Thompson, Sandy. 1997. Three frequency effects in syntax. In: Juge, M.L. & Moxley, J.L. (eds). *Berkeley Linguistics Society* 23: 65-85.

Gries, Stefan Th. 2009. *Statistics for Linguistics with R. A Practical Introduction*. Berlin: Mouton de Gruyter.

Heine, Bernd, & Claudi, Ulrike & Hünnemeyer, Friederike. 1991. *Grammaticalization: A conceptual framework*. Chicago: University of Chicago Press.

Hopper, Paul J. 1991. On some principles of grammaticalization. In: Traugott, E.C. & Heine, B. (eds). *Approaches to Grammaticalization*. 17-35. John Benjamins Publishing Company.

Lehmann, Christian. 2002. *Thoughts on grammaticalization*. Arbeitspapiere des Seminars für Sprachwissenschaft der Universität Erfurt 9.

Pierrehumbert, Janet B. 2012. Burstiness of Verbs and Derived Nouns. In: Santos, D. & Linden, K. & Ng'ang'a, W. (eds). *Shall we play the Festschrift Game?: Essays on the Occasion of Lauri Carlson's 60th Brithday*. Berlin-Heidelberg: Springer-Verlag.

Traugott, Elizabeth Close & Dasher, Richard. 2002. *Regularity in semantic change*. Cambridge: Cambridge University Press.

Traugott, Elizabeth Close & Trousdale, Graeme. 2010. *Gradience, Gradualness and Grammaticalization*. Typological Studies in Language 90. John Benjamins Publishing Company.

Xing, Janet Zhiqun. 2015. A comparative study of semantic change in grammaticalization and lexicalization in Chinese and Germanic languages. *Studies in Language* 39 (3): 594–634.

Past Participle Agreement in Majorcan Catalan: The Relevance of Inner Aspect

Sebastià Salvà i Puig

(Centre de Lingüística Teòrica, Universitat Autònoma de Barcelona)

Majorcan Catalan admits, optionally, past participle agreement with the object *in situ* (PPA$_{OIS}$):

(1) S'   ha   {*rentades*/rentat}   ses   mans.
    cl.refl has   washed.{fem.pl/mas.sg}   the.fem.pl   hands.fem.pl
    '{He/she} has washed {his/her} hands'.

A fact not observed until now is that PPA$_{OIS}$ is not always felicitous. Firstly, PPA$_{OIS}$ is weird with K(imian) and D(avidsonian) *states*:

(2) *a.*   Sempre ha   {temut/*temudes}   ses   bubotes.
            always has   feared.{mas.sg/fem.pl} the.fem.pl   ghosts.fem.pl
            '{He/she} has always been afraid of ghosts'.

    b.   Sa   pobresa ha   {preocupat/*preocupada} sempre na   Maria.
            the   poverty has   worried.{mas.sg/fem.sg} always art.pers.fem   Maria.
            'Maria has always worried about poverty'.

However, PPA$_{OIS}$ is possible with some «stative» verbs that can be used in *telic dynamic* constructions (3*a*): curiously, the same verbs that allow accusative case in Finnish, apart from partitive case (Kiparsky 1998). These are called *level-2 pure stative verbs* by Jaque (2014): they can unfold more verbal structure —not only Init(iation), but also Proc(ess) and Res(ult), in Ramchand's (2008) terms— if they are used in past simple or present perfect. We also find a very interesting contrast: in (3*a*), with PPA$_{OIS}$ (accusative case in Finnish), *all* the female students the professor had are brilliant; but this is not necessarily true for (3*b*), without PPA (partitive case in Finnish).

(3) *a.*   Enguany he *tengudes* [$_{SC}$ [unes estudiants] [brillants]].

    b.   Enguany he *tengut* [$_{DP}$ unes estudiants brillants].
            'This year I've had some brilliant female-students'.

Secondly, PPA_{OIS} is also odd in some *atelic dynamic* constructions, even with objects bounded by a determiner/quantifier (4). But it can be perfectly grammatical with bare plurals (5*a*) and with bare mass nouns (5*b*).

(4) He   {cercat/*cercada}   [_DP sa   solució].
    have.I   searched.{mas.sg/fem.sg} the.fem.sg   solution.fem.sg
    'I've looked for the solution'.

(5) *a.*   Hem   {*cantades*/cantat}   [_NP cançons].
        have.we   sung.{fem.pl/mas.sg}   songs.fem.pl
        'We've been singing songs'.
    b.   Hem   {*beguda*/begut}   [_NP cervesa].
        have.we   drunk.{fem.sg/mas.sg} beer.fem.sg
        'We've been drinking beer'.

I follow Borer (2005), Belletti (2006), MacDonald (2008) and Travis (2010) in assuming that a specific functional head (Asp) can be present in the structure, between *v*P and VP. Asp establishes a double *Agree* relation with the object, in order to get two kind of unvalued features valued: on the one hand, its [*u*ϕ] features and, on the oher hand, its quantity/quantisation features (if Asp is valued [+q], the predicate will be interpreted as telic; but atelic if [–q]).

If Asp is not present in the structure —as in statives—, the impossibility of PPA_{OIS} follows. I assume with Borer (2005), contra MacDonald (2008), that neither do sentences like (4) have Asp, although they could involve a «functional shell» (F^S) or, better yet, Proc(ess), in order to license the event argument (as argued by Jaque 2014 to account for D-states). As a consequence, PPA_{OIS} is also forbidden here. Thus, I argue that Asp is, in fact, Proc with [*u*q] and [*u*ϕ] extra features.

Contra Ramchand (2008) —who claims that telicity can emerge either from the presence of a Res(ult)P or, with no ResP, simply as a semantic entailment—, Majorcan PPA_{OIS} shows, like the Finnish case distinction, that event quantisation is grammatically encoded.

References (selected):

A. Belletti (2006): «(Past) Participle Agreement», in M. Everaert *et al.* (eds.): *The Blackwell Companion to Syntax*, vol. 3, Oxford: Blackwell.

H. Borer (2005): *Structuring Sense, vol. 2: The Normal Course of Events*, Oxford: OUP.

M. Jaque (2014): *La expresión de la estatividad en español: niveles de representación y grados de dinamicidad*, Universidad Autónoma de Madrid; PhD thesis.

P. Kiparsky (1998): «Partitive Case and Aspect», in M. Butt & W. Geuder (eds.): *The Projection of Arguments: Lexical and Compositional Factors*, Stanford: CSLI.

J. MacDonald (2008): *The Syntactic Nature of Inner Aspect*, Amsterdam: J. Benjamins.

G. Ramchand (2008): *Verb Meaning and the Lexicon: A First-Phase Syntax*, Cambridge: CUP.

L. Travis (2010): *Inner Aspect: The Articulation of VP,* Dordrecht: Springer.

An experimental study on the Definiteness Effect in Italian and Greek unaccusative inversion

Silvia Schaefer

(Goethe University Frankfurt)

Since Belletti (1988) it has widely been assumed that there is a *Definiteness Effect* (DE) in Italian if information structure is taken into account. While VS structures are typically interpreted as containing a subject of new information (iFoc), indefinite subjects of a certain verb class can receive a wide focus (wFoc) interpretation. Until today, there is no consensus on exactly which verb class allows wFoc inversion. Pinto (1997) claims that most unaccusatives and some unergatives (*telefonare* type) can undergo a wFoc inversion, Tortora (1997) narrows the verb class in question further down by stating that only telic VIDM (Verbs of Inherently Directed Motion) allow a wFoc interpretation, since a covert locative GOAL argument can license the VS structure by occupying the EPP position.

Following Tortora`s subdivision, I conducted a written pilot test with the following working hypothesis: While wFoc inversion is only possible for indefinite subjects of telic VIDM, definite and indefinite subjects of all verb classes must be interpreted as iFoc. Informants were asked to contextualize a given sentence via the choice of one or more adequate questions. 77 Italian informants completed the test. The results revealed only tendencies in the sense of the working hypothesis. But surprisingly a bare plural (BP) with an unergative yielded the strongest result, being interpreted as iFoc in 92% of the answers.

These results suggest that the DE in Italian is sensitive to the core features of indefiniteness, which BPs display, since they pass most of the tests for indefiniteness (Abbott 2010), while other types of indefinites only partially do so.

A follow-up experiment with a similar design, manipulating the verb class (8 telic vs. 8 atelic VIDM) and the definiteness of the subject (BPs vs. *alcuni* (some) indefinites), was completed by 76 Italian speakers. While the overall results showed tendencies in the sense of the hypothesis but no significant differences between the verb classes, the results of the individual verbs were highly heterogeneous even within one verb class.

Since in Greek the acceptability of postverbal BPs was classified as a diagnostics for *change of location* unaccusatives (Alexiadou 2009, 2011), I carried out a written test with grammaticality judgement tasks on a 3-point scale. I used the equivalent telic and atelic VIDM with postverbal BPs. The test was completed by 140 Greek informants. The overall results showed no significant difference in the ratings of VS structures with telic and atelic VIDM. But again, the results of the individual verbs varied greatly within the same verb class.

The heterogeneity of the results show that telicity is not the only prominent factor for wFoc unaccusative inversion and point to a multifactorial analysis. The aspectual make-up of the verb seems to be crucial, since *arrive*-verbs disposing over a binominal event structure yielded better results than the trinominal *enter*-verbs, reminding of Ramchand's (2008) syntactic decomposition of thematic structure. Further possible factors like a decomposed notion of agentivity and the presence of an overt argumental locative PP should be investigated thoroughly.

References

Abbott, Barbara. 2010. *Reference.* Number 2 in Oxford Surveys in Semantics and Pragmatics. Oxford University Press.

Alexiadou, Artemis. 2009. *Unaccusativity mismatches and the syntax of unaccusatives*.

Alexiadou, Artemis. 2011. *Post-verbal nominatives: an unaccusativity diagnostic under scrutiny*. In: R. Folli & C. Ulbrich (eds.) Interfaces in Linguistics: New Research Perspectives. Oxford University Press.

Belletti, Adriana. 1988. *The case of unaccusatives*. Linguistic Inquiry 19(1), 1-34.

Belletti, Adriana. 1999. *Inversion as focalization*. Catalan Working Papers in Linguistics 7: 9-45.

Milsark, Gary. 1974. *Existential Sentences in English*. PhD Dissertation, MIT.

Pinto, Manuela. 1997. *Licensing and Interpretation of Inverted Subjects*. Utrecht: LED.

Ramchand, Gillian Catriona. 2008. *Verb meaning and the lexicon: A first phase syntax*. Vol. 116. Cambridge University Press.

Tortora, Christina. 1997. *The syntax and semantics of the weak locative*. PhD Dissertation. University of Delaware.

Wh-IAW structures in German and how they relate to modal particles

Steven Schoonjans

(Leopold-Franzens-Universität Innsbruck & KU Leuven/FWO-Vlaanderen)

The Wh-IAW structure has repeatedly been mentioned in publications pleading in favor of Construction Grammar, both in English (Fillmore 1985 on *Wh the heck*, *Wh the devil* and *Wh in heaven's name*) and in German (Stefanowitsch 2011 on *Wh in aller Welt* 'Wh in all world'), as in (1-2). The IAW elements, i.e. the elements inserted after the question word, are considered as a kind of intensifiers which mark "incomprehension of the speaker with regard to the sentence's proposition" (Stefanowitsch 2011:190; my translation) or indicate that the speaker has no idea whatsoever of what the answer could be.

(1)   *What the heck* did you see? (Fillmore 1985:81)

(2)   *Was in aller Welt* will Frau Merkel erreichen? (Stefanowitsch 2011:190)
        'What *in aller Welt* does Merkel want to achieve?'

While the German Wh-IAW structure (just like its English counterpart) presents a rewarding example for Construction Grammar, it is largely unstudied. This presentation tries to fill this gap by means of a study of a dozen variants of German Wh-IAW on the basis of the COSMAS-II database (next to *Wh in aller Welt* also *Wh in Himmels Namen* 'Wh in heaven's name', *Wh um Gottes willen* 'Wh for God's sake', *Was zum Geier* 'Wh the vulture', and *Wh beim Klabautermann* 'Wh by the ship's kobold', among others). The aim of this talk is twofold: getting a better view of this group of markers, on the one hand, and investigating how they relate to other markers with similar functions, such as the German modal particles *nur* and *bloß*, on the other. Indeed, at least since Thurmair (1989:179), it is generally assumed that the main feature of these particles is "Verstärkung" ('intensification'), indicating a "particular subjective interest from the side of the speaker" (my translation) to get the answer, which is reminiscent of Stefanowitsch's description of the function of IAW elements cited above.

For this comparison with modal particles, the focus in this talk is on topology and distribution. Concerning topology, examples such as (3) show that the IAW element may also take a middle field position which is typical of modal particles, while the latter can also be adjacent to the question word rather than occurring in their typical middle field position, as in (4). A closer look at the topology of IAW elements and modal particles reveals that this is not a coincidence, in that they more generally behave in a similar way topologically. With regard to distribution, Thurmair (1989:180) suggests that particles such as *nur* and *bloß* are mainly used in questions asking for reasons or causes. The final aim of the talk is to see to what extent this is true and if it also holds for IAW elements.

(3)   *Warum* schreibt ihr *in Dreiteufelsnamen* dies hier rein? (COSMAS-II)
        'Why *in three devils's name* do you write that here?'

(4)   *Warum nur* ist immer alles so furchtbar für mich? (Schoonjans 2013:136)
         'Why *nur* is everything always so dreadful to me?'

References

Fillmore, Charles J. 1985. "Syntactic intrusions and the notion of grammatical construction." *Proceedings of the Eleventh Annual Meeting of the Berkeley Linguistics Society*. 73-86.

Schoonjans, Steven. 2013. "Modal particles: Problems in defining a category." in: Degand, Liesbeth, Bert Cornillie & Paola Pietrandrea (eds.), *Discourse Markers and Modal Particles: Categorization and Description*. Amsterdam: John Benjamins. 133-161.

Stefanowitsch, Anatol. 2011. "Keine Grammatik ohne Konstruktionen: Ein logisch-ökonomisches Argument für die Konstruktionsgrammatik." in: Engelberg, Stefan, Anke Holler & Kristel Proost (eds.), *Sprachliches Wissen zwischen Lexikon und Grammatik*. Berlin: Walter de Gruyter. 181-210.

Waltereit, Richard. 2006. *Abtönung. Zur Pragmatik und historischen Semantik von Modalpartikeln und ihren funktionalen Äquivalenten in romanischen Sprachen*. Tübingen: Max Niemeyer.

Marieke Schouwstra

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The Influence of German on English since 1801: Lexical Borrowings and their Semantic Development

Julia Schultz

(University of Heidelberg)

While there is a multitude of investigations of the impact of English on the German language, the reverse contact situation has been fairly neglected. Several analyses carried out before the publication of Pfeffer's (1987) study *Deutsches Sprachgut im Wortschatz der Amerikaner und Engländer* assumed that German functioned as a comparatively minor donor language of words in English over the centuries. Borrowings were believed to be scarce, and most of them were identified as technical terms the "average" native speaker of English would not normally use. After the publication of Pfeffer's (1987) survey, which comprises more than 3000 German lexical items introduced into English since 1500, a number of authors of previous investigations had to reconsider their findings.

   Stanforth (1994, 1), a leading scholar of the language contact between German and English, rightly emphasizes that the borrowing of German words peaked in the nineteenth and twentieth centuries. Until the present day, the impact of German on the English lexicon in the past few centuries has not yet been comprehensively surveyed. The present paper sets out to shed light on the German influence on the English vocabulary during the last two centuries in much more depth than prior studies. Electronic media such as digitalized dictionaries and corpora are of prime importance for this analysis. The results offered in this study rely on the evaluation of a collection of several thousand nineteenth and twentieth century German borrowings attested in the *Oxford English Dictionary Online*. According to their meanings, the borrowings under consideration have been grouped into manifold

subject fields (e.g. politics, war and the military, gastronomy, the humanities, the fine arts and crafts), so as to give an overview of the variety of areas from which German-derived lexical items have been adopted into English since 1801.

The focus of linguistic concern will be on the semantic developments of nineteenth and twentieth century German borrowings from their first recorded use in English up to the present day, which has been analysed little if at all in most previous investigations. Emphasis will be placed upon analysing whether a) a particular meaning a borrowing assumes after its assumption into English has its origins in German (due to the continuing influence of German on the target language) or b) whether it can be classified as an independent semantic change within English. To compare the meaning of a German borrowing with that of its original in the donor language, German sources such as the *Duden Online* will be consulted.

Special attention will be given to those German-derived words which occur fairly frequently in corpora of current usage, such as the *British National Corpus*, the *Corpus of Contemporary American English* and newspaper collections available in the database *LexisNexis*. Several typical examples will be provided illustrating the most important varieties of semantic change which can be found among the borrowings under review.

References

Durkin, P. (2014): *Borrowed Words. A History of Loanwords in English*. Oxford: Oxford University Press.

Murray, J. – Bradley, H. – Craigie, W. – Onions, C. (eds.) (1884-1933): *The Oxford English Dictionary*; *Supplement* (1972-86), ed. by Burchfield, R.; Second ed. (1989), ed. by Simpson, J. and Weiner, E.; *Additions Series* (1993-1997), ed. by Simpson, J., Weiner, E. and Proffitt, M.; Third ed. (in progress) *OED Online* (March 2000-), ed. by Simpson, J. Oxford.

Pfeffer, J. A. (1987): *Deutsches Sprachgut im Wortschatz der Amerikaner und Engländer.Vergleichendes Lexikon mit analytischer Einführung und historischem Überblick*. Tübingen: Niemeyer.

Pfeffer, J. A. – Cannon, G. (1994): *German Loanwords in English. An Historical Dictionary*. Cambridge: Cambridge University Press. [reprint 2010]

Schultz, J. (2016a): "Der Einfluss des Deutschen auf die englische Sprache seit 1900 – Entlehnungen und soziokulturelle Aspekte ihrer Aufnahme", in: Görner, R. – Dirscherl, M. (eds.): *Angermion. Yearbook for Anglo-German Literary Criticism, Intellectual History and Cultural Transfers/Jahrbuch für britisch-deutsche Kulturbeziehungen* 9, 137-168.

Schultz, J. (2016b): *Twentieth Century Borrowings from German to English: Their Semantic Integration and Contextual Usage*. Duisburger Arbeiten zur Sprach- und Kulturwissenschaft/Duisburg Papers on Research in Language and Culture. Frankfurt [et al.]: Lang.

Serjeantson, M. S. (1935): *A History of Foreign Words in English*. London: Routledge & Kegan Paul (fourth impression 1968).

Stanforth, A. (1994): "You can be sure its schnell: Germanismen im Englischen". *Sprachreport: Informationen und Meinungen zur deutschen Sprache* 2, 1-3.

Stanforth, A. (1996): *Deutsche Einflüsse auf den englischen Wortschatz in Geschichte und Gegenwart. Mit einem Beitrag zum Amerikanischen Englisch von Jürgen Eichhoff*. Tübingen: Niemeyer.

Stanforth, A. (2009): "The influence of High German on the English language". In: Pfalzgraf, F. (ed.): *Englischer Sprachkontakt in den Varietäten des Deutschen*. Frankfurt am Main [*et al.*] , 35-51.

Stern, G. (1931): *Meaning and Change of Meaning*. Bloomington: Indiana University Press (reprint 1975).

Traugott, E. C. (2006): "Semantic change: bleaching, strengthening, narrowing, extension",in: Brown, K. (ed.) (2006): *Encyclopedia of Language and Linguistics*, Second ed., Oxford: Elsevier, vol. xi: 124-131.

Traugott, E. C. – Dasher, R. B. (2005): *Regularity in Semantic Change*. Cambridge: Cambridge University Press (reprint 2007).

Ullmann, S. (1967): *The Principles of Semantics*. Second ed., Oxford: Basil Blackwell.

Online resources

British National Corpus <http://www.natcorp.ox.ac.uk/>
Corpus of Contemporary American English <http://corpus.byu.edu/coca/>
Duden Online <http://www.duden.de/woerterbuch>
LexisNexis <http://www.lexisnexis.de/>
OED Online searchable at: <http://www.oed.com/>

The bare/partitive-marked distinction in Romance languages: A usage-based account

Hagay Schurr

(Hebrew University of Jerusalem)

Romance languages are often classified into two groups of opposed syntactic types, based, *inter alia,* on differential argument marking (Körner 1987; Bossong 1991; Iemmolo 2010; Carlier & Lamiroy 2014; Fagard & Mardale 2014). This criterion contrasts center and periphery or north and south in Romance languages (Stark 2005; Ledgeway 2012), which respectively tend to develop partitive articles (PA), as in French *du* (1a-1b) or prepositional accusative patterns (PrpA), as in Spanish *a* (2a-2b).

According to Stark (2005), this distinction correlates with the availability and productivity of bare nominals, which are much more frequent in PrpA languages than in those that grammaticalize "(obligatory) indefinite determination" via partitive and plural indefinite articles. Considering variation in nominal syntax in terms of NOMINAL CLASSIFICATION, such that PrpA and PA patterns contrast in marking individuated and unindividuated arguments, respectively (Hopper & Thompson 1980), Stark proposes that the shift from Latin to Romance may account for the synchronic distribution of nominal classifiers, including the bare noun/PA distinction.

In this talk, I account for the split using a family-level typology (22 Romance varieties) and diachronic corpus studies of the typologically opposite Spanish and French (12th-16th centuries). I demonstrate that before NOMINAL CLASSIFICATION grammaticalized (circa. 15th-16th centuries), a split occurred in Old Romance PRONOMINAL CLASSIFICATION tendencies (circa. 11th-14th centuries), e.g., via partitive clitics and *leísmo*.

I argue that this early *pronominal* split indirectly biased further differentiation in clitic and nominal patterns, including the bare/PA-marked nominals. Specifically, the grammaticalization of pronominal individuation-based classifiers affected changes in token frequencies of certain clitics. These, in turn, biased subsequent grammaticalizations of differential and non-differential argument structure due to the effects of frequency on grammaticalization (cf., Haspelmath 2004; Diessel & Hilpert 2016).

Among other related patterns, I highlight the emergence in Spanish and French of differentially marked indirect objects by deviation from the expected reflexes of Latin *ad*, i.e., French *chez* and

Spanish *con* (3a-b). This counters the common view that PrpA and PA (and corresponding bare noun distributions) represent the endpoint of the Romance split in differential argument marking. Based on web and diachronic corpus studies, I demonstrate that these patterns accord with the typological split in (pro)nominal classification, including the distribution of bare and partitive nouns.

In conclusion, this usage-based account situates the bare/partitive distinction in the cadre of morpho-syntactic typology and extends the commonly recognized relation between bound and free argument structure.

1. French

   a. Je=bois   un   café   b. Je=bois   *du*   café   .
      I=drink.PRS.1SG   a   coffee   I=drink.PRS.1SG   PA   coffee
      'I drink a cup of coffee.'   'I drink (some) coffee.'

2. Spanish

1. a. *Conozco*   *España*   1. b. *Conozco*   *a*   *María*
1. a. know.PRS.1SG   Spain   1. b. know.PRS.1SG   PrpA   Maria
1. a. 'I know Spain.'   1. b. 'I know Maria.'
3.

a. French

2. J='ai   envoyé   un   mail   *chez*   le   carossier

   1SG.SBJ=have.PRS.1SG   send.PTCP   a   mail   APUD   the   vehicle-bodyworker
   'I   sent   a   mail   to   the   vehicle   bodyworker.'   (http://www.vwquebec.ca/)

b. Spanish 09/08/2015)(APUD=apudlocative)

   [..] si   se=vea,[…] (Caroline*i*)   pues
                                      se(.RFL)=see.PRSSBJ.3SG

   if   (Caroline)   then,
   la i=envio   *contigo*
   3SGF.ACC=send.PRS.1SG   COM-2SG
   'If anyone sees Caroline , then I send her*i* over to you.' (creedence004.deviantart.com,
   12/11/2015)(COM=comitative)

References

Bossong, Georg. 1991. Differential object marking in Romance and beyond. In D. Kibbee & D. Wanner (eds.), *New Analyses in Romance Linguistics*, 143–170. Amsterdam & Philadelphia: Benjamins.

Carlier, Anne & Béatrice Lamiroy. 2014. The grammaticalization of the prepositional partitive in Romance. In Silvia Luraghi & Thomas Huomo (eds.), *Partitive Cases and Related Categories*, 477–522. Berlin: De Gruyter.

Diessel, Holger & Martin Hilpert. 2016. Frequency effects in grammar. *Oxford Research Encyclopedia of Linguistics*. doi:10.1093/acrefore/9780199384655.013.120.

Fagard, Benjamin & Alexandru Mardale. 2014. Non, mais tu l'as vu à lui? Analyse(s) du marquage différentiel de l'objet en français. *Verbum* 26(1). 145–170.

Haspelmath, Martin. 2004. Explaining the ditransitive person-role constraint. *Constructions*(2). 1–49.

Hopper, Paul J. & Sandra A. Thompson. 1980. Transitivity in Grammar and Discourse. *Language* 56(2). 251–299.

Iemmolo, Giorgio. 2010. Topicality and differential object marking: Evidence from Romance and beyond. *Studies in Language* 34(2). 239–272. doi:10.1075/sl.34.2.01iem.

Körner, Karl-Hermann. 1987. *Korrelative Sprachtypologie. Die zwei Typen romanischer Syntax*. Stuttgart: Steiner.

Ledgeway, Adam. 2012. *From Latin to Romance: Morphosyntactic Typology and Change*. Oxford: Oxford University Press. doi:10.1093/acprof:oso/9780199584376.001.0001.

Stark, Elisabeth. 2005. Typological correlations in nominal determination in Romance. In Klaus Von Heusinger, Georg A. Kaiser & Stark. Elisabeth (eds.), *Specificity and the Evolution/Emergence of Nominal Determination Systems in Romance*, 123–138. Konstanz.

A study on embedded interrogatives with modal particles

Kerstin Schwabe

(ZAS Berlin)

The talk presents a study on the German discourse particles *denn*, *nicht*, *überhaupt*, *wohl*, *etwa*, and *schon* that occur in embedded interrogatives alone or in combination (1a-e) and (2a, b). German discourse particles in interrogatives are mainly investigated with respect to main clauses (Doherty 1987, Kwon 2005, Coniglio 2011, Bayer 2012). As for discourse particles in embedded interrogatives, they are discussed only marginally (Doherty 1987, Coniglio 2011). The talk is based on a corpus-based data base that contains about 900 interrogative embedding predicates. It shows that *nicht* and *etwa* are restricted to embedded *ob*-clauses and that *schon* only occurs in *wh*-clauses. And it partially confirms Krifka's (2001) suggestion that embedded questions with discourse particles relate to question intensions in terms of Gronendijk and Stokhof (1982) – cf. (1a-e) and (2a, b). It will be shown that discourse particles in these embedded question intensions {σ, ¬σ} are related to direct interrogative force 'quest{σ, ¬σ}', that is, that the embedded clause exhibits a Force-Phrase. Furthermore, it will be discussed how the discourse particles determine the interaction between quest{σ, ¬σ}, the matrix predicate and the matrix subject and how an indirect speech act interpretation (assertion) results if there is any. Predicates that embed quest{σ, ¬σ} with discourse particles denote, for instance, reports of direct question acts with a bias on ¬σ (1a) and (2a), of indirect speech acts with a bias on ¬σ (1b), activities in order to get an answer to the expressed question with a bias on σ (1c) or on ¬σ (1d), activities in order to realize a decision with a bias on σ (1e), and attitudes towards expected answers (2b). As for the discourse function of the particles, it will be shown that, for instance, *denn* indicates a bias of the embedded question {σ, ¬σ} on σ and that σ is either the protasis or the consequence of a contextually given implication. As for embedded interrogatives {σ, ¬σ} with the particle *nicht*, the particle indicates a bias of the matrix subject towards σ.

(1)   a.   ... Ihre Mitarbeiter werden *ausgehorcht*, ob es **denn** nun wirklich dabei bleibe, daß Hillary Clinton aufs Titelbild komme. DWDS BZ 1999

        b.   Als der Sonnenkönig ärgerlich *erwiderte*, ob er den Calvados **etwa** aus dem Ärmel schütteln sollte, meinte der Marquis, Viel leicht habe Majestät einen, in der Krone. DWDS Zeit 1973

        c.   Aus der Höhe des effektiven Jahreszinses kann er außerdem *ersehen*, ob er mit einem Kredit von seinem Geldinstitut … **nicht** besser fahren würde. DWDS BZ 1995

        d.   Sie *grübelte* ein Jahr lang *darüber*, ob sie **überhaupt** jemals wieder auf die Tour zurückkehren könne. DWDS BZ 2002

        e.   Ich will *dafür werben*, ob es **nicht** vielleicht **doch** heute eine Beschlussfassung von allen demokratischen Fraktionen geben könnte. IDS pmv 2010

(2)   a.   Dann saugt er an der Brasil und *sinniert* laut, was er **denn schon** groß brauche: Ein Bildhauerfrühstück mit Speck und Ei. DWDS BZ 1996

         b.   Nun *bangen* sie darum, wie lange ihre Zeitung **wohl** noch erscheinen wird. DWDS Zeit 1977

References

Bayer, Josef. 2012. From Modal Particle to Interrogative Marker: A Study of German *denn*. In: L. Brugè, A. Cardinaletti, G. Giusti, N. Munaro & C. Poletto (eds.), *Functional Heads*. Oxford University Press.

Coniglio, Marco. 2011. *Die Syntax der deutschen Modalpartikeln. Ihre Distribution und Lizensierung in Haupt- und Nebensätzen*. Berlin: Akademieverlag.

Doherty, Monica. 1987. Epistemic Meaning. Berlin Heidelberg New York: Springer Verlag

Groenendijk, Jeroen and Stokhof,Martin. 1997. Questions. In *Handbook of Logic and Language*, Johan van Benthem and Alice ter Meulen (eds), 1055-1124. Cambridge, Mass., Elsevier/MIT Pess, Amsterdam/ Cam-bridge, Mass.

Krifka, Manfred. Quantifying into question acts. *Natural Language Semantics* 9: 1-40.

Kwon, Min-Jae. 2005. *Modalpartikeln und Satzmodus, Untersuchungen zur Syntax, Semantik, und Pragmatik der deutschen Modalpartikeln*. Dissertation, Universität München.

On the Emergence of Grammar-Lexicon Mixed Languages: The Case of Amish Shwitzer

Guido Seiler

(University of Munich)

Grammar-lexicon mixed languages inherit grammatical structure and morphemes from one ancestral language and vocabulary from another. They typically arise in situations of community bilingualism when minority speakers are under great pressure to adopt a dominating language but nonetheless resist to total linguistic assimilation (Bakker 1997, Thomason 2001, 2003, Matras & Bakker 2003, Velupillai 2015, Meakins 2013, 2016). However, in Amish Shwitzer the typical structure of a grammar-lexicon mixed language emerged without widespread active bilingualism or great assimilation pressure. We argue that intelligibility among ancestral languages creates specific, so far unreported circumstances for the emergence of mixed languages.

   Part 1 gives a short overview of the history and the present situation of the language, based on fieldwork from 2016. Amish Shwitzer is spoken by 3000 speakers in Adams County, Indiana (USA) (Meyers & Nolt 2005; Humpa 1996; Fleischer & Louden 2010). Speakers are descendants of Swiss (Bernese) Anabaptists who immigrated in the mid-19th century.

   Part 2 sketches the linguistic structure of Amish Shwitzer. The language maintained many specifically Bernese Swiss German characteristics in lexicon and phonology. However, its morphosyntactic structure (case inflection, tense and aspect, nonfinite complementation, function words, etc.) is almost identical to that of Pennsylvania Dutch, a language that has existed in North America since the 18th century (derived from Palatinate German dialects). It seems that Amish Shwitzer is the first reported grammar-lexicon mixed language whose ancestral languages are close genetic relatives (cf. Matras & Bakker 2003, Meakins 2013, 2016 for an overview).

   Part 3 seeks for a sociolinguistic explanation of the emergence of the mixed nature of Amish Shwitzer. The maintenance of many Bernese traits is rather obvious to explain, since this particular

group of Amish is a minority within the greater Amish community and retained a separate Swiss-Amish identity not only in language, but also in dress or custom (Meyers & Nolt 2005). However, it is the great degree of pennsylvanization that calls for an explanation. We will discuss three factors: (i) Mixed Shwitzer-Pennsylvania-Dutch marriages after the 1960s (Humpa 1996, Meyers & Nolt 2005) brought a number of bidialectal children as potential primary agents of the shift. However, this does not yet explain why the Pennsylvania Dutch features could have spread throughout the rest of the community. (ii) Pennsylvania Dutch is passively intelligible for Shwitzer speakers (but not vice-versa). Therefore, outsider Amish entering the community have never felt a need to fully adapt to the Adams County dialect. Asymmetrical intelligibility is motivated by (iii) the accidental greater similarity of Palatinian/Pennsylvania Dutch to written German (*bibutitsch* 'Bible German') in a number of salient phonological features.

In conclusion, grammar-lexicon mixed languages may emerge, too, even when they descend from closely related varieties. Furthermore, (asymmetrical) intelligibility of the ancestral languages may give rise to new types of sociolinguistic circumstances for mixed language emergence where concepts such as 'dominant language' or 'widespread bilingualism' are not fully applicable.

References

Bakker, Peter. 1997. *"A Language of our Own": The Genesis of Michif - the Mixed Cree-French language of the Canadian Métis.* New York, Oxford : Oxford University Press.

Fleischer, Jürg & Louden, Mark. 2010. Das Amish Swiss German im nordöstlichen Indiana: eine alemannisch-pfälzische Mischmundart? In: Christen, Helen *et al.* (eds.): *Alemannische Dialektologie: Wege in die Zukunft*. Stuttgart: Steiner. 231-245.

Humpa, Gregory J. 1996. Retention and loss of Bernese Alemannic traits in an Indiana Amish dialect: a comparative-historical study. Unpublished PhD thesis Purdue University.

Matras, Yaron & Bakker, Peter. 2003. The study of mixed languages. In: Matras, Yaron & Bakker, Peter (eds.). 2003. *The Mixed Language Debate: Theoretical and Empirical Advances*. Berlin: Mouton de Gruyter. pp. 1-20.

Meakins, Felicity. 2013. Mixed languages. In: Bakker, Peter & Matras, Yaron (eds.). *Contact Languages: A Comprehensive Guide.* Berlin, New York: de Gruyter. pp. 159-228.

Meakins, Felicity. 2016. Mixed languages. In: Aronoff, Mark (ed.): *Oxford Research Encyclopedias: Linguistics*. Oxford: Oxford University Press.
http://linguistics.oxfordre.com

Meyers, Thomas J. & Nolt, Steven M. 2005. *An Amish Patchwork. Indiana's Old Orders in the Modern World.* Bloomington: Indiana University Press.

Thomason, Sarah G. 2001. *Language Contact. An Introduction.* Washington D.C.: Georgetown UP.

Thomason, Sarah G. 2003. Social factors and linguistic processes in the emergence of stable mixed languages. In: Matras, Yaron & Bakker, Peter (eds.). *The Mixed Language Debate: Theoretical and Empirical Advances*. Berlin: Mouton de Gruyter. pp. 21-39.

Velupillai, Viveka. 2015. *Pidgins, Creoles and Mixed Languages. An Introduction.* Amsterdam/Philadelphia: Benjamins.

Possessive markers in Komi-Zyrian: Topic, presupposition, or discourse markers[6]

Natalia Serdobolskaya

(Russian State University for the Humanities, Moscow State University of Education)

In Komi-Zyrian (Pechora dialect) direct objects (DOs) can take the marker of the accusative case, cumulative markers of accusative and possession (referring to the person and number of the possessor) and can remain unmarked. Serdobolskaya, Toldova (2012) show that accusative/non-marked DOs are in complimentary distribution depending on animacy: animate DOs, proper names and pronouns may take the accusative, while non-animate DOs may be non-marked (see also Klumpp 2014). Hence, I differentiate between two strategies of DO marking in Komi-Zyrian, 0/Acc vs. Poss.

The distribution of the two strategies is based on the information structure of the sentence, on the one hand, and on referential properties of the DO, on the other hand. Poss is most often preferred in the following contexts:

1. The DO is a possessum of either an explicitly mentioned participant, or the speaker/hearer/focus of empathy etc.
2. The DO is a sentence topic.

For other types of contexts, Serdobolskaya, Toldova (2012) claim that Poss is most often chosen if DO belongs to the theme of the sentence; if it belongs to rheme, the 0/Acc strategy is a preferred one. I show that the following rules are most relevant in these cases:

3. The DO is marked with Poss if another element is in narrow focus (the verb, the subject, other arguments, adverbials).
4. The DO is marked with Poss in case of partitive specificity as defined in von Heusinger (2011).
5. The DO is marked with Poss in case it has a modifier that triggers the exhaustive interpretation.

These rules may be explained based on presupposition: Poss encodes the presupposition of existence/uniqueness of the DO. It is by definition present in the type 5, and with some reservations in 1 (see Dobrovie-Sorin 2004, Barker 2011). Topical NPs (2) involve the presupposition of existence as claimed in (Lambrecht 1994). Narrow focus constructions (3) are analyzed as presupposition triggers (Levinson 1983). Partitive specificity contexts (4) involves the presupposition of existence (von Heusinger 2011).

However, the presupposition-based explanation does not reflect the following facts:
The use of the DO possessive markers is not required (or even preferred) in the context of several presupposition triggers, e.g.:
- 'stop' verbs, the verb 'know', causal adverbial clauses;
- contrast (on the contrary, if the DO bears the contrastive focus, the 0/ACC strategy is required).

Moreover, in the contexts (2)-(5) possessive markers are not used in case of semi-activated discourse status (which is measured in terms of high referential distance, cf. Chafe 1994).
Hence, however appealing the presupposition analysis, it does not cover all the data. To attain the explanatory adequacy, I formulate the rules that "override" the above-formulated generalizations. The latter rules are based on the presence of contrast and on the discourse status of the referent.

References

Barker, Chris. 2011. Possessives and relational nouns. *Semantics: An international handbook of natural language meaning*. Vol. *2*. Mouton de Gruyter, pp.1109–1130.

Chafe, Wallace. 1994. *Discourse, consciousness, and time: The flow and displacement of conscious experience in speaking and writing*. Chicago: University of Chicago Press.

Dobrovie-Sorin, Carmen. 2004. Genitives and determiners. In *Possessive and beyond: Semantics and Syntax*. Ed. by Kim et al., Amherst, pp. 115–132.

Klumpp, Gerson. 2014. Identifiability, givenness and zero-marked referential objects in Komi. *Linguistics*. 2014. Vol. 52. Issue 2, pp. 415–444.

Lambrecht, Knud. 1994. *Information Structure and Sentence Form: Topic, Focus, and the Mental Representation of Discourse Referents*. Cambridge, UK: Cambridge University Press.

Levinson S.C. 1983. *Pragmatics*. Cambridge University Press.

Serdobolskaya N.V., Toldova S.Ju. Differencirovannoe markirovanie prjamogo dopolnenija v finno-ugorskih jazykah [Differential Object Marking in Finno-Ugric languages] // Kuznecova A.I. (otv. red.) *Finno-ugorskie jazyki: Fragmenty grammaticheskogo opisanija. Formal'nyj i funkcional'nyj podhody* [Finno-Ugric languages: Fragments of grammatical description. Formal and functional approaches]. M.: «Jazyki slavjanskih kul'tur», 2012, pp. 59–142.

von Heusinger, Klaus. 2011. Specificity. In *Semantics. An international handbook of natural language meaning*. Vol. 2. Mouton de Gruyter, pp. 1025-1058.

A paradigm in the making: On the emergence of mirative verbs and the role of analogy

Mario Serrano-Losada

(Universidade de Santiago de Compostela)

In recent times, mirativity—a linguistic category that conveys new or unexpected information with overtones of surprise (DeLancey 1997; 2012)—has received increasing scholarly attention, even from the perspective of those languages that do not encode it morphologically. Such is the case of English (cf. e.g. Gentens et al. 2016). Throughout its history, the English language has witnessed the emergence of several mirative verb constructions. This emerging group of constructions includes verbs like *prove*, attested from Middle English, and *appear*, from Early Modern English (Visser 1963: §235). During the Late Modern English period, mirative *turn out* became a part of this incipient paradigm:

(1) *And when we imagined we had a fox to deal with […] it **turns out** to be a badger* (CLMET3.0, 1749)

(2) *It **turns out** that the whole combined army […] does not amount to above thirty-six thousand fighting men!* (CLMET3.0, 1744)

The present paper zooms in on the emergence of mirative *turn out*. Although phrasal *turn out* is present as a lexical verb in English since the Early Modern English period, the data reveals that the changes leading to mirative raising *turn out* are almost imperceptible, as the predicate bursts in during the eighteenth century with barely any evidence to account for the changes at hand. Thus, the chronological evidence leaves little room to consider a traditional (gradual) grammaticalization process leading to the emergence of mirative *turn out*. Conversely, the data suggest that this was a rather cataclysmic change in the sense of Petré (2012), who refers to the abruptness with which the Old English copulas *becuman* and *weaxan* emerged and became entrenched as sudden categorial

incursion. De Smet (2009) defined categorial incursion as a "non-gradual" analogy-driven mechanism whereby a construction becomes a member of a new category, which, however, already exists as an established category. According to De Smet (2009: 1748), such a change could be considered "an analogical extension of one construction into the domain of another." In fact, Petré (2012: 61) claims that a certain degree of similarity is necessary for constructional attraction to occur. In the case of *turn out*, a process of (pseudo)copularization triggers the possibility of evaluative complements, which in turn allows for incipient evidential and mirative interpretations, which opens the door to analogical reasoning. Thus, the verb's abrupt incursion into the paradigm of evidential and mirative raising verbs is brought about by means of both concrete and structural analogical modeling (cf. Fischer 2015) after preexisting established members of this category such as *seem* and *appear* (cf. Gisborne & Holmes 2007), *happen* or *prove*—as well as after other members of this class that were grammaticalized during the same period, including *promise* and *threaten* (Traugott 1997)—all of which share, most prominently, their status as raising predicates that can be used to express evidential and/or mirative meanings. Data for this paper has been drawn from the OED, CLMET3.0, COCA and COHA.

Sources

CLMET3.0   *The Corpus of Late Modern English Texts*, *version 3.0*, compiled by Hendrik De Smet, Hans Jürgen Dillerand & Jukka Tyrkkö. https://perswww.kuleuven.be/~u0044428/

COCA *Corpus of Contemporary American English*, 2008-2016, compiled by Mark Davies. http://corpus.byu.edu/coca/

COHA *Corpus of Historical American English*, 2010-2016, compiled by Mark Davies. http://corpus.byu.edu/coha

OED *Oxford English Dictionary Online*. Oxford University Press. http://www.oed.com

References

De Smet, Hendrik. 2009. Analysing reanalysis. *Lingua* 119(11). 1728–1755.

DeLancey, Scott. 1997. Mirativity: The grammatical marking of unexpected information. *Linguistic Typology* 1(1). 33–52.

DeLancey, Scott. 2012. Still mirative after all these years. *Linguistic Typology* 16(3). 529–564.

Fischer, Olga. 2015. The influence of the grammatical system and analogy in processes of language change: the case of the auxiliation of HAVE-to once again. In Fabienne Toupin & Brian Lowrey (eds.), *Studies in Linguistic Variation and Change: From Old to Middle English*, 120–150. Newcastle: Cambridge Scholars Publishing.

Gentens, Caroline, Ditte Kimps, Kristin Davidse, Gilles Jacobs, An Van Linden & Lieselotte Brems. 2016. Mirativity and rhetorical structure. In Gunther Kaltenböck, Evelien Keizer & Arne Lohmann (eds.), *Outside the Clause: Form and function of extra-clausal constituents*, vol. 178, 125–156. (Studies in Language Companion Series). Amsterdam: John Benjamins Publishing Company.

Gisborne, Nikolas & Jasper Holmes. 2007. A history of English evidential verbs of appearance. *English Language and Linguistics* 11(1). 1–29.

Petré, Peter. 2012. General productivity: How *become* waxed and *wax* became a copula. *Cognitive Linguistics* 23(1). 27–65.

Traugott, Elizabeth Closs. 1997. Subjectification and the development of epistemic meaning: The case of promise and threaten. In Toril Swan & Olaf J. Westvik (eds.), *Modality in Germanic Languages*, 185–210. Berlin, New York: De Gruyter Mouton.

Visser, Fredericus Theodorus. 1963. *An Historical Syntax of the English Language*. Brill Archive.

Differential object markers and datives

Ilja A. Seržant

(Leipzig University)

Introduction: It has been argued in the literature that datives often expand onto direct objects and lead thereby to the emergence of differential object marking (DOM) (*inter alia*, Comrie 1979; Lazard 2001: 875; Dalrymple & Nikolaeva 2011: 207ff). Thus, Lehmann (1995: 97) states "A dative marker may further develop into an **accusative** marker. In keeping with its origin, this will first be used to mark direct objects with a relative independence, mainly human and/or definite/specific objects." As examples of this development figure languages with the syncretic dative/accusative such as Spanish with its preposition *a* (both DOM and dative) (since Meyer-Lübke 1899; Hanssen 1913: 296), Burmese *-kou*, Persian postposition *-rā,* Bororo *-ji* or English third person pronouns *him/her/them* that continue Old English dative forms (Lehmann 1995: 97-8), furthermore, the marker *-ga* in Kanuri and Tubu (West-Saharan) (König 2008: 41-2), the markers $t^haʔ$ in Lahu and t^hie in Lolo (both Lohoish, Tibeto-Burman).

Discussion: In the present paper, I scrutinize the alleged historical connection between the DOM function of these markers, on the one hand, and their dative function, on the other. I present alternative historical explanations. For example, I will show that the generalization of the dative forms *her/him* in English was due to the major process of dative-accusative syncretism found already in Old English and was never conditioned by any of the typical DOM factors such as animacy or topicality. In turn, the DOM preposition *a* in Romance stems directly from a left-dislocation construction used to code direct objects bearing the marked-topic role (topic shift, contrastive topic) while the original function of the postpositions $t^haʔ$ in Lahu and t^hie in Lolo was to code contrastive focus. I will also present evidence against dative-accusative connection for Persian and Kanuri. Finally, the historical connection between the dative function and the DOM function of *-ko* in Hindi might indeed be correct (cf. Butt & Ahmed 2008).

Claim: Summarizing the results I will claim that the alleged historical connection between datives and DOM markers should be relativized: it is not as frequent as it was assumed hitherto. Instead, the syncretic accusative/dative markers have heterogeneous origins in different languages, and their dative and accusative functions, respectively, may emerge along different and largely independent pathways.

References

Comrie, Bernard 1979: Definite and animate direct objects: a natural class, *Linguistica Silesiana* 3, 13-21.

Dalrymple, Mary and Irina Nikolaeva. 2011. *Objects and information structure*. Cambridge: Cambridge University Press.

Lazard, Gilbert. 2001. Le marquage différentiel de l'objet. Language universals and language typology: An international handbook, Martin Haspelmath, Ekkehard König, Wulf Österreicher & Wolfgang Raible (eds.), 873-885. Berlin, New York: Mouton de Gruyter.

Lehmann, Christian 2002. *Thoughts on grammaticalization*. Second, revised edition. [Arbeitspapiere des Seminars für Sprachwissenschaft der Universität Erfurt 9]. Erfurt: Institut für Sprachwissenschaft.

Hanssen, Federico 1913: *Gramática histórica de la lengua castellana*. Halle: Max Niemeyer.

Butt, Miriam & Tafseer Ahmed 2011: The redevelopment of Indo-Aryan case systems from a lexical semantic perspective, *Morphology* 21, 545-572.

König, Christa 2008: *Case in Africa.* Oxford: OUP.

Meyer-Lübke, Wilhelm 1899: *Grammatik der romanischen Sprachen*. Vol. 3: Syntax. Leipzig. Reisland.

Using the GloWbE Corpus and a multifactorial analysis to investigate *that*/zero complementizer variation in World Englishes for evidence of morphosyntactic change(s)

Christopher Shank & Koen Plevoets
(Bangor University & LStat – University of Leuven)

This paper examines the distribution of *that*/zero complementation alternation patterns, and related claims drawn from the literature concerning the proposed impact that the variety of World Englishes (i.e. core vs. peripheral or traditional L1 vs high-contact L1 vs L2) and roles that 13 concomitant structural factors/variables within the matrix and complement clauses, play as predictors of the morphosyntactically simplified zero complementizer form in the verbs: *think*, *know*, *say, see,* and *feel*. Using the 1.9 billion word Corpus of Global Web-Based English (GloWbE) a total of 56,000 hits (for all 5 verbs) were randomly extracted from the GloWbE's 20 different World English types / country categories. All of matrix plus complement *that*/zero constructions were for 28 structural variables including person, tense, polarity, and presence of modal auxiliaries, syntactic complexity, and complement clause subjects. In addition the constructions for each country were coded for the following information: the type/variety of English - i.e. T–L1 vs HC-L1 vs L2 (Kortmann & Szmrecsanyi, 2009), the geographical region of the country (Kortmann, 2010), the status of English in the country as a recognized official language, or not, or as one of a number of officially recognized languages and finally the date of independence of each country from Great Britain (a continuum of dates ranging from 1776 to 2016). Statistically sufficient and balanced sample sizes (n>40) for all 20 World English types were created and a stepwise regression analysis is used to examine the statistical significance of all of the abovementioned factors in conjunction with the 13 structural factors within and between the matrix and complement clauses (as summarized in Kaltenbock 2004, described in Torres Cacoullos and Walker 2009 and presented in Author 1, Author 2 and Cuyckens, H, 2014).

The research questions guiding this paper are: (i) whether the conditioning factors proposed in the literature indeed predict the zero form, (ii) to what extent these factors interact, (iii) whether the predictive power of the conditioning factors becomes stronger or weaker depending upon the variety of World English, (iv) the impact of the type of World English itself as a variable on predicting the presence zero form and (v) what new or additional insights are gained with this study's focus *that*/zero alternation with respect earlier work and claims regarding morphosyntactic simplification or complexification processes, varieties / types of World English, geography, and non-linguistic socio-political factors.

The results reveal varying degrees of significance for each of the 13 matrix and complement clause features, however; stronger significance and implications are revealed when additional variables (e.g. polarity, length of the subject, verb type, type/variety of World English and geographical location) are incorporated via a 'weighted' variable analysis. These findings are used to both identify the structural / morphosyntactic as well as the 'non-linguistic factors' which are significant in predicting the presence

of the zero complementizer form for each of the 5 verbs and within and across each of the 20 varieties of World Englishes. These findings will then be used to facilitate a discussion concerning the implications for using this type of statistically driven multifactorial approach.

References

Author 1, Author 2 & Author 3. (2014) A Diachronic Corpus based Multivariate Analysis of "I think that" versus "I think zero" Polysemy and Synonymy. Corpus Methods and Applications in Cognitive Linguistics. Glynn, D & Robinson, J. (Eds). John Benjamins Publishing Co.

Davis, Daniel. (2006) 'World Englishes and Descriptive Grammars' in The Handbook of World Englishes. (Eds). Kachru, Braj, Kachru, Yamuna and Nelson, Cecil L. Blackwell Publishing Ltd. 509-525.

Davies, Mark. (2013) Corpus of Global Web-Based English: 1.9 billion words from speakers in 20 countries (GloWbE). Available online at http://corpus.byu.edu/glowbe/.

Kaltenböck, Günter. 2004. "That or no that – that is the question. On subordinator suppression in extraposed subject clauses", Vienna English Working Papers 13 (1): 49-68.

Kortmann, Bernd & Szmrecsanyi, Benedikt. (2009) 'World Englishes between simplification and complexification' in World Englishes – Problems, Properties and Prospects: Selected papers from the 13th IAWE conference. (Eds). Hoffmann, Thomas & Siebers, Lucia. John Benjamins Publishing Company. 265-285

Kortmann, Bernd. (2010). 'Variation across Englishes: Syntax' in The Routledge Handbook of World Englishes. (Ed). Kirkpatrick, Andy. Routledge. 400-424.

Kachru, Yamuna & Smith, Larry. (2008) Chapter 3 Phrases and Sentences. Cultures, Contexts and World. Englishes. Taylor & Francis. 85-101

Mesthrie, Rajend and Bhatt, Rakesh. (2008). Chapter 3 - Structural features of New Englishes II: -- cross-clausal syntax and syntactic theory. World Englishes: The Study of New Linguistic Varieties. Cambridge University Press. 78-108.

Nelson, Gerald (2014). 'The circle of English: an exploration of the "core" and "periphery" of world Englishes' in The Variability of Current World Englishes. (Eds). Green, Eugene and Meyer, Charles F. Walter de Gruyter GmbH, Berlin/Boston. 99-119.

Rissanen, Matti. 1991. On the history of that/zero as clause object links in English. In Aijmer, K. &B. Altenberg (Eds.), English Corpus Linguistics; Studies in Honor of Jan Svartvik. London and New York: Longman. 272-289

Torres Cacoullos, Rena & James A. Walker. 2009. On the persistence of grammar in discourse formulas: A variationist study of that. Linguistics 47. 1–43.

Number marking in quantified expressions in Hill Mari[7]

Maria Sidorova

(Lomonosov Moscow State University)

This paper deals with noun number marking in quantified expressions (QEs) in Hill Mari (< Finno-Ugric). QEs consist of a noun and either a numeral or a quantifier (e.g. *cilä* 'all', *šukə̂* 'many, much', *kə̂də̂ tidə̈* 'some', *čə̈də̈* 'few, little'). My data comes from fieldwork in the village of Kuznecovo (Mari El, Russia) in 2016.

First, I will discuss the factors which influence number marking in Hill Mari QEs (dependents, syntactic position, distributive interpretation) with a special emphasis to those which have not been previously described for Hill Mari and pose typological challenges, especially syntactic position. Second, I will illustrate the difference between QEs with numerals and with quantifiers (sometimes ignored in the previous research, cf. Savatkova (2002: 144–150), Alhoniemi (1993: 91–98). Third, I will argue that the use of plural in QEs cannot be reduced to Russian influence (as has been claimed before), but is governed by factors operating inside the system of Hill Mari.

According to Corbett (2004: 211), in some languages a noun quantified by a numeral takes a plural marker, whereas other languages adopt the opposite strategy and choose singular. Finally, some languages combine these strategies relying on a set of factors.

Hill Mari was described as adopting the second strategy, see Alhoniemi (1993: 93), but, according to my data, numerals can be compatible with a plural marker on a noun. First, this happens when there are dependents in a QE. The more is the distance between numerals / other quantifiers and a noun, the more likely is plural marking:

(1) *stöl   völnä   šänz-ät   kәm   cäškä   /*cäškä-vlä.*
    table   at   sit-npst.3pl   3   cup   cup-pl
    'There are 3 cups on the table'.

(2) *stöl   völnä   šänz-ät   kәm   cever   klovoj cäškä   /^OK cäškä-vlä.*
    table   at   sit-npst.3pl   3   beautiful   blue   cup   cup-pl
    'There are 3 beautiful blue cups on the table'.

Constructions with other quantifiers follow the same number marking pattern with dependents, but on the whole they are more compatible with plural marking (different quantifiers to a different degree, see Table 1).

Table 1. Number in QEs[8]

Q	No dependents	1 dependent	2+ dependents
Cardinal	**sg** / *pl	**sg** / ??pl	**sg** / ?pl
šukә 'many', *kәdә tidә* 'some', *čәdә* 'few, little'	**sg** / ??pl	**sg** / ?pl	**sg** / ok pl
cilä 'all'	**sg** / ?pl	**sg** / ok pl	**sg** / **pl**

Further, variation in Hill Mari QEs is bigger (pl is more likely) in oblique cases than in direct ones.

(3) *ti   ölicä-štә   mәn'   nәl   toma-m /   *toma-vlä-m   už-әm.*
    this   street-in   I   4   house-acc   house-pl-acc   see-pret.1sg
    'I saw 4 houses in this street'.

(4) *mәn'-әn   täng-em-vlä   nәl   toma-štә   /^OK toma-vlä-štә әl-ät.*
    I-gen   friend-1sg-pl   4   house-in   house-pl-in   live-npst.3pl
    'My friends live in 4 houses'.

It is quite peculiar, as typologically (for number marking in general) more number values are expected, on the contrary, for direct cases than for oblique, see Corbett (2004: 274). Interestingly, the generalization from Corbett (2004) is true for noun number marking outside QEs (Bochkova (2016)). A possible explanation (to be provided in the talk) is based on some more general properties of obliques in Hill Mari and other Finno-Ugric languages.

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[8] The most popular first responses during elicitation are highlighted in bold.

There is also a factor of distributive interpretation which has been underdescribed in previous studies (just mentioned in Tuzharov (1987)). It increases the likelihood of plural marking in oblique.

(5)   *kə̂m*   *cäškä-vlä-škə̂*   /[OK]*cäškä-škə̂*   *opt-ə̂š-ə̂m*   *čaj-ə̂m.*
       3   cup-pl-ill   cup-ill   put-pret-1sg   tea-acc
       'I have poured (some) tea into 3 cups'.

Number marking in QEs is governed by a self-dependent inventory of rules, which cannot be reduced to Russian influence (claimed in Shmatova, Chernigovskaja (2012)), as the two systems differ too much. Furthermore, there is diachronic evidence from Tuzharov (1987: 17) that at the beginning of the XX century the use of plural with numerals was less restricted, which also contradicts the idea of Russian influence, since the latter is only growing in the last decades.

Some of the factors I discuss (e.g. the distance between the elements of QE) have been described as cross-linguistically relevant not for number marking in QEs, but for number agreement between a subject and a predicate ("real distance", Belnap (1999: 176)). This poses a typological question whether number marking and agreement follow the same rules (both in a particular language and cross-linguistically). This question has been underestimated so far, as these two issues have mostly been addressed in typology separately. I will touch upon it in my talk.

Abbreviations
1, 2, 3 — 1, 2, 3 person, acc —accusative, gen — genitive, ill — illative, in — inessive, npst — non-past, pl — plural, pret — preterite, sg — singular.

References
Alhoniemi (1993): Alho Alhoniemi. 1993. *Grammatik des Tscheremissischen (Mari): mit Texten und Glossar*. Hamburg, Helmut Buske Verlag.

Belnap (1999): Belnap, R.Kirk. 1999. *A new perspective on the history of Arabic: variation in marking agreement with plural heads*. Folia Linguistica 33.

Bochkova (2016): A. Bochkova. 2016. *Chislovoje markirovanije suščestvitelnykh v gornomarijskom jazyke*. [Noun number marking in Hill Mari]. 13th Conference on Typology and Grammar for Young Scholars. Abstracts. (ed. D. Miščenko). Saint-Petersburg: Nestor-Istorija. 24–28.

Corbett (2004): Greville G. Corbett. 2004. *Number*. Cambridge, Cambridge University Press.

Savatkova (2002): A. A. Savatkova. 2002. *Gornoje narechije marijskogo jazyka*. [Hill Mari language (grammar)]. Savariae.

Shmatova, Chernigovskaja (2012): M. S. Shmatova, E. A. Chernigovskaya. 2012. *Kategorija chisla suščestvitelnogo v marijskom i permskikh jazykakh*. [The category of number in Mari and Permic languages]. Finno-Ugric languages: fragments of grammatical descriptions. Formal and functional approaches. (ed. A. I. Kuznetsova). Moscow: Jazyki slavianskikh kultur. P. 221–247.

Tuzharov (1987): G. M. Tuzharov. 1987. *Grammaticheskije kategorii imeni suščestvitelnogo v marijskom jazyke*. [Grammatic categories of noun in Mari]. Yoshkar-Ola.

Dmitri Sitchinava

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Another Piece of the Present Perfect Puzzle – Past Adverbials and the Present Perfect in Contemporary American English

Julia Skala

(University of Vienna)

This talk will present the results of an acceptability judgment questionnaire study investigating the degree of perceived well-formedness of combinations of the Present Perfect (PrP) and a select number of time specifying adverbials (tsAdv) such as *yesterday*, *two weeks ago* and *last Monday* – terms that are traditionally considered illicit in this context (cf. e.g. Klein 1992; Declerck 2006).

The assertion that this co-occurrence is at least questionable is, of course, not unjustified. Since tsAdvs are terms that lexicalize temporal concepts that provide definite past reference, they seem ill-fitted to combine with a form that, in turn, prototypically provides a construal of past events as having relevance at speech time. Previous studies have shown, however, that combinations of the PrP and tsAdvs do indeed occur, albeit infrequently (e.g. Schlüter 2002). Their stable presence is noted across time (Hundt & Smith 2009) as well as variety (Werner 2013) and genre (see (1), (2) and (3)).

*(1) Barton's pair of Humvees **have been airlifted** into Limbe **only yesterday**. (COCA:1995: MAG: HarpersMag)*
*(2) The fun house **has turned out** its lights **several hours ago** and will not reopen until noon. (COCA:1992: FIC: VirginiaQRev)*
*(3) **More than 10 years ago** Salomaki et al. **have demonstrated** that epidural fentanyl provided better analgesia than intravenous fentanyl after thoracic surgery. (COCA: 2007: ACAD)*

Rastall's (1999: 81) assertion that these combinations "are not 'errors' or the products of non-standard speakers", is at least to some extent supported by the existence of such attested examples, but has yet to be explicitly put to the test. Also, little headway has been made regarding the circumstances that license these co-occurrences.

The present study is a step towards addressing this gap. A qualitative corpus study (using stratified sample sentences from the Corpus of Contemporary American English (COCA)) served as the basis for the identification of potentially relevant factors (ranging from ones traditionally perceived as central, like the Aktionsart of the verb phrase or the placement of the adverbial, to comparatively novel ones, like property ascription and explicit justification). Whether or not these factors bear out in the perception of native speakers of American English is tested on 225 participants in a contextual acceptability judgment comprising 36 target items modelled on examples from the COCA, balanced in Aktionsart, genre, placement and specificity of the tsAdv and PrP type. The filler items ranging in acceptability from probably seen as completely well-formed to very likely considered unacceptable serve as baseline items for the degree of perceived acceptability of the target items

Despite the influence of 19th century prescriptivism, this part of the study is expected to show that, indeed, certain combinations of the PrP and tsAdvs are accepted as well-formed by native speakers of US American English, and that it is for the most part pragmatic factors that call for the use of the PrP (cf. Miller 2004), especially if explicitly encoded in the text, that license the co-occurrence in these contexts. Whether this means that the PrP in US American English is developing into a past tense, as this form is wont to do (e.g. Van Gelderen 2011; Hengeveld 2011) is discussed based on the data collected.

References

Cowart, Wayne. 1997. *Experimental syntax: applying objective methods to sentence judgments*. Thousand Oaks: Sage.

Davies, Mark. 1990-2015. *BYU-Corpus of Contemporary American English (COCA)*. http://corpus.byu.edu/coca/ (January 2016 – December 2016).

Declerck, Renaat. 2006. *The grammar of the English verb phrase: Volume 1: The grammar of the English tense system: a comprehensive analysis*. Berlin: Mouton de Gruyter.

Hengeveld, Kees. 2011. The grammaticalization of tense and aspect. In: Heine, Bernd; Narrog, Heiko (eds.). *The Oxford handbook of grammaticalization*. 580-594. Oxford: OUP.

Hundt, Marianne; Smith, Nicholas. 2009. "The Present Perfect in British and American English: has there been any change, recently?" *ICAME Journal* 33, 45-63.

Klein, Wolfgang. 1992. "The Present Perfect puzzle". *Language* 3, 525-552.

Miller, Jim. 2004. "Perfect and resultative constructions in spoken and non-standard English". In Fischer, Olga; Norde, Muriel; Perridon, Harry (eds.). *Up and down the cline: the nature of grammaticalization*. Amsterdam: John Benjamins, 229–246.

Rastall, Paul. 1999. "Observations on the Present Perfect in English." *World Englishes* 18(1), 79-83.

Schlüter, Norbert. 2002. *Present Perfect: eine korpuslinguistische Analyse des englischen Perfekts mit Vermittlungsvorschlägen für den Sprachunterricht*. Tübingen: Gunter Narr.

Van Gelderen, Elly. 2011. T*he linguistic cycle: language change and the language faculty*. Oxford: OUP.

Werner, Valentin. 2013. "The Present Perfect and definite temporal adverbials". *ELOPE* 10 (1), 9-21.

Language contact, codeswitching and linguistic change in Balkan bilingual symbiotic societies

Andrey N. Sobolev

(Institute for Linguistic Research, Russian Academy of Sciences, and St. Petersburg State University)

The paper focuses on linguistic processes in bilingual symbiotic societies in the Balkan peninsula as a special lesser-known language contact setting and a possible key to understanding the Balkan Sprachbund puzzle. The general claim, that Balkan linguistic convergence was caused by a shift from L1 to L2 after a long period of mass and perhaps symmetric bilingualism [Rusakov, Sobolev 2008; Sobolev 2018], is confronted to new, recently collected field data from the zones of intense language contact in the Western Balkans. In these areas, groups of people interact in additional distribution and a special nondominant bilingualism with power and prestige symmetry of L1 and L2 can take place (cf. the fact, that some general models of language contact "may be thought to presuppose an asymmetry between L1 and L2" [Muysken 2013: 727]).

Our data come from recordings done in 2013–2017 in each of the following communities:

1) Catholic Carașovians in Romanian Banat (with Slavic as L1 and Romanian as L2, except Iabalcea with Romanian as L1 and Slavic as passively known L2 [Konior 2016; Konior, Sobolev 2017]);

2) Muslim Mrkovići in Montenegro (with Slavic as L1 and Albanian as L2, except Velja Gorana with Slavic as L1 of male speakers and Albanian as L1 of female speakers [Sobolev 2015; Novik, Sobolev 2016a; Morozova 2017a]);

3) Orthodox Macedonians and Muslim Albanians in Prespa in Macedonia (in Arvati with Slavic or Albanian as L1 or L2 of male speakers respectively [Makarova 2016; 2017]);

4) Orthodox Himariotes in Albania (with Greek as L1 of the majority and Albanian as L1 of the minor part of population, especially women [Novik, Sobolev 2017b; Sobolev 2017]).

The paper describes in comparison the main sociolinguistic conditions of language contact, intralinguistic processes and patterns of extra- and intraclausal code-switching, as well as general results of contact-induced linguistic change in the above-mentioned societies at all levels of language structure – phonetics/phonology, grammar and lexicon. Representative narratives, dialogues and word-lists in Romanian, Slavic, Greek and Albanian dialects are presented in transcription and analyzed, generalizations provided. It is claimed, that two mental phonologies and grammars coexist in the same bilingual individual (ex., a male bilingual in Slavic L1 and Albanian L2 in Montenegro shows no higher level of alloglossy in vocalic nasalism or inflection as compared to other speakers of Albanian), whereas lexicon – viewed through thematic groupings (cf. [Kozak 2015; Kisilier 2017; Morozova 2017b]) – behaves in significantly different way (ex., one and the same set of lexical items can serve both languages in a specific semantic field).

References

Kisilier 2017 — Kisilier, Maxim L. Leksicheskie osobennosti tsakonskogo dialekta novogrecheskogo yazyka [Lexical peculiarities of the greek Tsakonian dialect] // *Voprosy yazykoznaniya*. 1: 105-135.

Konior 2016 — Konior, Daria V. 2016. Leksicheskaya realizatsiya predmetnogo koda karashevskoi svad'by ["Objective code" of the Krashovani wedding vocabulary and its lexical manifestation] // *Acta linguistica Petropolitana*. XII (3). In print.

Konior, Sobolev 2017 — Konior, DariaV.; Sobolev, Andrey N. 2017. Osobennosti neravnovesnogo bilingvizma u rumynoyazychnyh karashevtsev v sele Yabaltcha [On some aspects of nonequilibrium Romanian-Slavic bilingualism in the village of Iabalcea]. *Indoevropeyskoye yazykoznaniye i klassicheskaya filologiya*. XXI. In print.

Kozak 2015 — Kozak, Vyacheslav V. Otrazhenie slaviano-romanskikh kontaktov v leksike glagolicheskikh nadpisei s ostrova Krk XI–XVIII vv. [Reflections of slavonic-romance contacts in the lexics of glagolitic XI–XVIII st. inscriptions from Krk] // *Indoevropeyskoye yazykoznaniye i klassicheskaya filologiya*. XIX: 401–410.

Makarova 2016 — Makarova, Anastasia L. Neka zapažanja o jezičkoj situaciji u selima regiona Prespa [Some observations on language situation in the villages of Prespa] // *Studia slavica hungarica*. 61/1: 115-130.

Makarova 2017 — Makarova, Anastasia L. On the Macedonian Perfect(s) in the Balkan Context // *Zeitschrift für Slawistik*. In print.

Morozova 2017a — Morozova, Maria S. Albanskii govor ili govory Gorany? Genezis i funktsionirovanie [Albanian idiom or idioms of Gorana? Genesis and function] // *Vestnik SPbGU. Series 9. Language and literature*. 2017: 2. In print.

Morozova 2017b — Morozova, Maria S. Language contact and social context: Kinship terms and kinship relations of the Mrkovići in southern Montenegro // *Journal of Language Contact*. In print.

Muysken 2013 — Muysken, Peter. 2013. Language contact outcomes as the result of bilingual optimization strategies // *Bilingualism: Language and Cognition*. 16 (4): 709–730.

Novik, Sobolev 2016a — Novik, Alexander A.; Sobolev, Andrey N. The Traditional Wedding Costume of Mrkovići in Montenegro between Real Heritage and Folk Construction (Materials

of the Russian Expeditions in 2012-2014) // *Folklore. Electronic Journal of Folklore.* 66: 15–36.

Novik, Sobolev 2016b — Novik, Alexander A.; Sobolev, Andrey N. Studime etnolinguistike në Himarë dhe në zonën e Vurgut [Ethnolinguistic Research in Himara and Vorgu region] //*Albanohellenica. Years XVI-XVII. (2015). Nr. 6. Proceedings of the 2nd International Conference of Greek-Albanian / Albanian-Greek Studies (Tirana, March 27th-28th, 2015).* http://albanohellenica.wix.com

Rusakov, Sobolev 2008 — Rusakov, Alexander Yu.; Sobolev, Andrey N. *Substancial'no-funkcional'naya teoriya balkanskogo yazykovogo soyuza i slav'anskie yazyki [Substational and functional theory of Balkan Sprachbund and Slavic Languages].* Paper presented at XIV International Congress of Slavicists in Ohrid, Macedonia. St. Petersburg: Nauka, 2008.

Sobolev 2015 — Sobolev, A. N. Mrkovichi (i Gorana): Iazyki i dialekty chernogorskogo Primoria v kontekste noveishikh balkanisticheskikh issledovanii» [Mrkovići (and Gorana): Languages and dialects of Montenegro sea area and latest Balkan studies]. *Sprache und Kultur der Albaner. Zeitliche und räumliche Dimensionen. Akten der 5. Deutsch-albanischen kulturwissenschaftlichen Tagung. (Buçimas bei Pogradec, Albanien, 5. – 8. Juni 2014).* Demiraj, B. (Hrsg.). Wiesbaden: Harrassowitz, 2015. P. 533–556.

Sobolev 2017 — Sobolev, Andrey N. K izucheniyu yazykov simbioticheskikh soobshchestv Zapadnykh Balkan (grecheskii i albanskii idiomy sela Palasa v kraine Himara, Albania) [Languages in the Western Balkan symbiotic societies: Greek and Albanian in Himara, Albania] // *Vestnik SPbGU. Series 9. Language and literature*. 2017: 3. In print.

Sobolev 2018 — Sobolev, Andrey N. Slavic dialects in the Balkans: unified and diverse, recipient and donor // Motoki, Nomachi and Danylenko, Andriy (Eds.). *Slavic in the Language Map of Europe*. Berlin; New York: Mouton de Gruyter. In preparation.

Niches in derivational morphology: specialisation of suffixes within the formation of Portuguese deverbal nouns

Alexandra Soares Rodrigues

(Escola Superior de Educação – Instituto Politécnico de Bragança, CELGA-ILTEC – Universidade de Coimbra)

The aim of this paper is to study the specialisation of affixes following the same word-formation rule/schema. The derivational morphology of Portuguese presents a multiplicity of suffixes that create/form deverbal nouns with the general meaning of 'event' (Rodrigues 2008). Those suffixes may be exemplified by *-ção* (*avaliação* 'evaluation'), *-mento* (*congelamento* 'freeze'), *-dura* (*raladura* 'event of grating'), *-agem* (*aterragem* 'landing'), *-nça* (*cobrança* 'levy'), *-ão* (*empurrão* 'push'), *-nço* (*falhanço* 'failure'), *-ido* (*ladrido* 'barking'), *-ice* (*coscuvilhice* 'gossip'), etc.

Apparently, those suffixes are rivals, because all of them generate the same kind of products from the same kind of bases. According to the Darwinist perspective presented by Lindsay & Aronoff (2013), Aronoff & Lindsay (2014, 2015) and Aronoff (2016), two affixes that are in mutual competition would either lead to the annihilation of one of them, or they may survive in the language with the condition that they find a niche, *i.e.* a specialisation.

In this paper, we will focus on the differences between the suffixes *-dura*, *-mento* and *-ido*, specifically with respect to their selectional restrictions and the secondary meanings of 'state' and

'concrete result' of the respective deverbal nouns. The analysis of these meanings is based on the exploration of corpora (Corpus do Português, Corpus de Referência do Português Contemporâneo, Corpus Informatizado do Português Medieval). Although the three suffixes produce event nouns (in some cases from the same verbal base), the meanings of 'concrete result' of products with *-dura* mainly designate 'wounds', 'portions' and 'residues' (*maçadura* 'bruise', *envergadura* 'wingspan', *serradura* 'sawdust'). Nouns with the suffix *-ido* indicate sounds (*rosnido* 'snarl', *ronquido* 'snore').

These properties are the result of specialisations of each one of the suffixes that do not characterise the other suffixes.

Apart from the meaning differences, the niches of the suffixes are also based on their selectional restrictions: *-ido* only operates with unergative verbs of emission of sound; *-dura* shows a preference towards verbs of causation with the meaning of 'to reduce to fragments', which goes back to medieval Portuguese, as observable in the analysis of the lexicon of veterinary treatises, as Giraldo (1318).

The analysis of the niches or specialisations of suffixes with the same word formation rule/schema is consistent with the idea that word formation is a dynamic domain which is dependent on patterns that speakers deduce from the language usage. A word-formation rule/schema may be seen as a macro-pattern, for which the relation between the category of the base, the category of the product and the meaning of the latter build the pattern. In this sense, event deverbal nouns correspond to a macro-pattern. Within those macro-patterns, micro-patterns may be observed. Those micro-patterns correspond to the niches of each suffix operating within the same macro-pattern. Micro-patterns are built, among other factors, according to selectional restrictions that regulate the adjunction of affixes to bases and according to the possible general and secondary meanings of the products of each one of the suffixes. For instance, the specialisation of the suffix *-ido* concerning both the meaning of 'sound' and its selectional restrictions constitute a micro-pattern within the macro-pattern of event deverbal nouns.

References

Aronoff, Mark (2016): Competition and the lexicon. In: Annibale Elia, Claudio Iacobini, & Miriam Voghera (eds.): *Livelli di Analisi e fenomeni di interfaccia.* Atti del XLVII Congresso Internazionale della Società di Linguistica Italiana. Roma: Bulzoni Editore, 39–52.

Aronoff, Mark & Mark Lindsay (2014): Productivity, blocking, and lexicalization. In: Rochelle Lieber & Pavol Štekauer (eds.): *The Oxford handbook of derivational morphology*. Oxford: Oxford University Press, 67–83.

Aronoff, Mark & Mark Lindsay (2015): Partial organization in languages: la langue est un système où la plupart se tient. *Proceedings of Décembrettes 8.*
(https://linguistics.stonybrook.edu/faculty/mark.aronoff).

Mestre Giraldo ([1318] 1909): *Livro d'alveitaria*. In: Pereira, Gabriel (ed.): Revista Lusitana XII. 1–60.

Lindsay, Mark & Mark Aronoff (2013): Natural selection in self-organizing morphological systems. In: Fabio Montermini; Gilles Boyé & Jesse Tseng (eds.): *Morphology in Toulouse: Selected Proceedings of Décembrettes 7*. München: Lincom, 133–153.

Rodrigues, Alexandra Soares (2008). *Formação de substantivos deverbais sufixados em português*. München: Lincom.

Corpora

Corpus de Referência do Português Contemporâneo [http://www.clul.ul.pt/pt/recursos/183-reference-corpus-of-contemporary-portuguese-crpc]

Corpus do português [www.corpusdoportugues.org]

Corpus Informatizado do Português Medieval [http://cipm.fcsh.unl.pt/]

Subjectively veridical predicates, negation and antonymy

Livia Sommer & Kerstin Schwabe

(ZAS Berlin & HU Berlin)

Like other languages, German has predicates (about fifty) that embed polar interrogatives only in the context of a non-veridical operator (**NVO**) – cf. (1) and (2), Adger & Quer (2001), Öhl (2016). A&Q propose that the *if*-clause '$\lambda q\ [(q = \sigma) \vee (q = \neg\sigma)]$' is a complement of a non-overt polarity sensitive determiner '$\lambda R\ \lambda P\ \exists q\ [Rq \wedge Pq]$' that applies it to the matrix clause thus yielding '$\exists q\ [[(q = \sigma) \vee (q = \neg\sigma)] \wedge$ pred q]'. Following Groenendijk & Stokhof (1984) and Giannakidou (2013), Öhl suggests that the *if*-or *ob*-clause, respectively, is an index dependent proposition '$\lambda i\ \lambda a\ [\sigma(i) = \sigma(a)]$' that is licensed by a subjectively veridical predicate (**svp**) and a non-veridical operator. But predicates like *glauben* 'believe' or *behaupten* 'claim' are svp's and do not allow an *if*-clause if they are in the scope of NVO. The paper will address this problem and propose the necessary and sufficient conditions for svp's to embed *ob*-clauses. It also will discuss a so far neglected class of experiencer predicates that are related to svp's and embed *ob*-clauses only under NVO's (2).

Similar to A&Q, the *ob*-clause is regarded as '$\lambda q\ [(q = \sigma) \vee (q = \neg\sigma)]$'. It quests for a true answer, either σ or $\neg\sigma$. Its combination with an objectively veridical predicate like *wissen* 'know' results in '[α weiß dass $\sigma \vee \alpha$ weiß dass $\neg\sigma$] & [(α weiß dass σ) $\Leftrightarrow \sigma$]', thus indicating that a true answer is given. This is not the case if the *ob*-clause combines with an svp like *sicher sein* 'be certain'. From '(α ist sicher dass σ) $\vee$ (α ist sicher dass $\neg\sigma$)' neither follows that σ nor that $\neg\sigma$. However, the negation of the disjunction as given in (1) and its paraphrase '$\neg$(α ist sicher dass σ) $\wedge \neg$(α ist sicher dass $\neg\sigma$)' is appropriate. It indicates that there is a scale for the matrix subject's epistemic commitment towards σ and that *sicher sein dass σ* and *sicher sein dass $\neg\sigma$* are antonymous epistemic states. This antonymy entails other epistemic states that relate to '$\lambda q\ [(q = \sigma) \vee (q = \neg\sigma)]$'. Since antonymy is also given with respect to deontic svp's like *entscheiden* 'decide' and prospective svp's like *absehen* 'forsee', these predicates also allow *ob*-clauses when being in the scope of a NVO (1). The similar holds for antonymous experiencer verbs like *kümmern* 'bother' (2). Here, σ and $\neg\sigma$ are related to an svp and they are antecedents of an implication as in '($\sigma \Rightarrow [\neg\alpha$ kümmert dass σ]) $\wedge$ ($\neg\sigma \Rightarrow [\neg\alpha$ kümmert dass $\neg\sigma$])'. If svp's like *glauben dass σ* 'believe' or *glauben dass $\neg\sigma$* are related to a commitment scale, they are complementary. That is, it is only valid '(α glaubt dass σ) $\vee$ (α glaubt dass $\neg\sigma$)'. This entails '(α glaubt dass $\neg\sigma$) $\Leftrightarrow$ ($\neg\alpha$ glaubt dass σ)' or neg-raising, respectively. But *glauben dass σ* and, for instance, *sicher dass σ* 'be certain' are compatible as well as *glauben dass $\neg\sigma$* and *sicher dass $\neg\sigma$*.

(1) *Es ist nicht sicher /entschieden   /absehbar, ob Maria kommt.*
     it is not certain/decided/forseeable if Maria comes

(2) *Es kümmert mich nicht (und begeistert auch nicht), ob Max gewinnt oder nicht.*
     it bother me not (and excits   also not) if Max wins   or   not

References

Adger, D. & Quer, J. 2001.The syntax and semantics of unselected embedded questions. *Lanuage* 77/1, 107-133.

Giannakidou, A. 2013. Inquisitive assertions and nonveridicality. In M. Aloni, M. Franke, & F. Roelofsen (eds), *The dynamic, inquisitive, and visionary life of phi, ?phi, and possibly phi*. A festschrift for Jeroen Groenendijk, Martin Stokhof and Frank Veltman. 115-126.

Groenendijk, J. and Stokhof, M. 1984. Question. Studies in the Semantics of Questions and the Pragmatics of Answers. Dissertation, University of Amsterdam.

Öhl, P. 2016. THAT vs. IF – on the Semantics of Complementisers. Talk at ZAS Berlin, 16/04/04.

Egophoric marking in Sinitic languages: the case of Baoding

Na Song
(INALCO-CRLAO)

Egophoricity generally concerns personal knowledge, experience, or involvement of a conscious self in an event or situation (San Roque et al, to appear). Egophoric is considered as a special evidential category of 'ego' evidentiality by some scholars such as DeLancey (2001:372), Garrett (2001:102); Tournadre (2008:284). Egophoric domain is already widely investigated in many languages such as Tibeto-Burman languages (Newar by Hale (1980)), whereas little attention has been paid to Sinitic languages. So far, only one Sinitic Language is reported to have egophoric system: Wutun[9] in the Northwest of China (San Roque et al, to appear). However, Wutun has developed an egophoric system closely resembling that of the Tibetan language (San Roque et al, to appear), due to language contact with Amdo Tibetan and Bonan (a mongolic language) (Sandman 2016:2). Whereas, Baoding, belonging to Ji-lu Mandarin, a variety completely different from Wutun, develops an emergent egophoric system.

This study focuses on the sentence-final particle *ia* in the Baoding dialect and its egophoric function, which is typologically rare among Sinitic Languages. Person hierarchy governing *ia* structure shows the following distribution pattern: *ia* can co-occur with first person in declarative sentences as well as second person in interrogative sentences. As for third person, only associated people can co-occur with *ia*.

(1a) $uɤ^{213}$ ($*ni^{213}/*t^ha^{45}$) tso^{21} ia
      1SG (2SG/3SG) go EGO
      I am going away. (I tell you that I am going away.)

(1b) ni^{213} tso^{213} $iã?^{10}$
      2SG go EGO$_{INT}$ INT$_{CONF}$
      Are you going away?

Sentence- final particle *ia* in declarative sentences, reported speech, as well as in interrogative sentences will be examined to demonstrate its egophoric function. *ia* in reported speech has the interpretation that the subject of the main clause is coreferential with the subject of the complement clause. As for the correlation between *ia* and interrogatives, Baoding, differing from Standard Mandarin (no grammaticalized evidentials (San Roque et al 2015)), belongs to the type of languages

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[9] Sandman (2016: 2) Wutun is unintelligible to the speakers of other forms of Mandarin, including the varieties of Northwest Mandarin and it is therefore not a 'dialect' but a distinct Sinitic language.

[10] *iã* is the syllable contraction form of two distinct particles *ia* (egophoric) and *ã* (polar question).

having a symmetrical system with the same markers in declarative sentences and interrogative sentences. From these perspectives, although the egophoric function of *ia* is restricted to certain predicates, which could be evidence of a really emergent egophoricity, the Baoding dialect has a typological significance for our understanding of the way Sinitic languages mark egophoric evidential.

References

DeLancey, Scott. 2001. The mirative and evidentiality. *Journal of Pragmatics* 33.3:371-384.

Hale, Austin. 1980. Person markers: Finite conjunct and disjunct verb forms in Newari. In R.L. Trail (ed.), *Papers in South-East Asian linguistics*,vol. 7, 95–106. Canberra, Australian National University.

Garrett, Edward. 2001. *Evidentiality and assertion in Tibetan,* PhD, University of California, Los Angeles.

Sandman, Erika. 2016. *A Grammar of Wutun*. Phd dissertation. University of Helsinki

San Roque, Lila, Simeon Floyd & Elisabeth Norcliffe. 2015. Evidentiality and interrogativity. *Lingua.*

San Roque, Lila, Floyd, Simeon & Norcliffe, Elisabeth to appear Egophorcity: an introduction

Tournadre, Nicolas. 2008. Arguments against the concept of 'conjunct'/'disjunct' in Tibetan. In Huber, B., M. Volkart,& P. Wildmer (eds.), *Chomolangma, Demawend und Kasbek: Festschrift für Roland Bielmeier zu seinem 65.Geburtstag*. 281-308. Halle: IITBS.

Sorting the Irrealis: Slovene *naj* between mood and force

Barbara Sonnenhauser

(University of Zurich)

Slovene *naj* (coarsely: 'let') functions as mood marker, modal particle, adverbial conjunction and clausal complementizer (cf. Roeder & Hansen 2006). The present paper aims at elaborating this functional diversity, focusing on the delimitation of *naj* from the imp(erative) and cond(itional) moods, and on its position within the system of comp(lementizers).

That *naj* does not simply supplement the imp paradigm (as suggested in Toporišič 2004) can be seen from the fact that both are attested for all persons, differing in that for *naj*, source and addressee need not be part of the same communicative situation, (1) vs. (2) (all examples from gigafida.net):

(1)   *Delajmo*$_{imp}$ skupaj, *delajmo*$_{imp}$ razumno.
        '*Let's act* jointly, *let's work* intelligently.'
(2)   Mi, kmetje, pa *naj bomo*$_{prs1pl}$ lepo tiho in *naj delamo*$_{prs1pl}$
        'We, farmers, *shall* better *be quiet* and *shall work.'*

Moreover, *naj* is not just another exponent of [–factivity] alongside the cond 'be+*l*-participle' (as suggested in Topolińska 2003), since both may co-occur, (3). This may result in meanings of conjecture or hearsay, which are oftentimes ascribed to *naj* alone (e.g. Gradišnik 1981):

(3)   […] AK47, ki *naj bi* si ga […] *prisvojil*$_{cond}$ neki ameriški vojak (Greenberg 2006, 133)
        'an AK-47, which *was supposedly acquired* by some American soldier'

That *naj* may combine with the default comp *da* indicates its unstable status as comp. In (4), *da* introduces indirect speech, while *naj* contributes volitionality. However, *naj* also works alone, (5), and appears as main clause comp, (6) (cf. Ammann & van der Auwera 2004, who do not consider Slovene):

(4)   je […] dejal, *da naj izbrskamo*$_{\text{prs1pl}}$ naše posebnosti
        'he said *that we* should foreground our perculiarities'
(5)   nam je včeraj dejal, *naj počakamo*$_{\text{prs1pl}}$ do ponedeljka
        'yesterday he told us *to wait* until Monday'
(6)   *Naj spomnimo*$_{\text{prs1pl}}$, kako je Plevnikova doživljala nesrečni dan
        '*Let us remember*, how Plevnikova erxperienced this desastrous day'

In (7) and (8), *da*, *naj* and cond/imp are 'stacked', which shows their mutual independence:

(7)   Pri Nikonu trdijo, *da naj bi* baterija *zdržala*$_{\text{cond}}$ vsaj 250 posnetkov, (Gigafida)
        'At Nikon they maintain *that* the battery *allegedly has a capacity* of 250 pictures.'
(8)   […], ki nas spodbujajo, *da naj uživajmo*$_{\text{imp1pl}}$ življenje
        'which motivated *that we enjoy* live'

Putting the pieces together, cond, imp and *naj* appear as different manifestations of Irrealis (understood as 'non-assertion', cf. Palmer 2001): deontic – covering 'volitional' (*naj*) and 'imperative' (imp) – and counterfactual/hypothetical (cond). The various functions of *naj* relate to its different syntactic positions: adverbial modifier in I', adverbial conjunction and embedded speech marker in specCP, comp in C.

Combining sentence force as encoded in the C-position with the discourse context and thus marking illocutionary force (cf. Portner 2004), *naj* as comp indicates the external (discourse) relation of the main clause and the embedding characteristics of the subordinate clause (Zimmermann 2009). This suggests that *naj* has been moving along the 'complementizer cycle' (van Gelderen 2009), which distinguishes it from cognate markers in Slavic and comparable markers in other languages (e.g. Hungarian *hadd*, Péteri 2012).

References
Ammann, A. & J. van der Auwera. 2004. Complementizer-headed main clauses for volitional moods in the languages of south-eastern Europe. Mišeska Tomić, O. (ed.). *Balkan syntax and semantics*. Amsterdam, 293–314

Gelderen, E. van. 2009. Renewal in the left periphery: economy and the complementizer layer. *Transactions of the Philological Society* 107/2, 131–195

Gradišnik, J. 1981. Domneve z 'naj'. *Jezik in Slovstvo* 2/1, 23-24

Greenberg, M.L. 2006. *A short reference grammar of contemporary Standard Slovene*. Kansas

Palmer, F.R. 2001. *Mood and modality*. Cambridge

Péteri, A. 2012. The Hungarian imperative particle *hadd*. *Acta Linguistica Hungarica* 59/4, 439–463

Portner, P. 2004. The semantics of imperatives within a theory of clause types. Watanabe, K. & R. Young (eds.). *Proceedings of Semantics and Linguistic Theory 14*. Ithaca

Roeder, C. & B. Hansen. 2006. Modals in contemporary Slovene. *Wiener Slavistisches Jahrbuch* 52, 153–170

Topolińska, Z. 2003. Means for grammatical accommodation of finite clauses: Slovenian between South and West Slavic. *Sprachtypologie und Universalienforschung* 56/3, 306–322

Toporišič, Jože. 2004. *Slovenska slovnica*. Maribor

Zimmermann, I. 2009. Satzmodus. Kempgen, S. et al. (eds.). 2009. *Die slavischen Sprachen*. Berlin, Boston, 484–509

Constructional change in the lifetime: *it*-cleft foci as a case study for change in individuals

William Standing
(University of Antwerp)

While grammatical changes have primarily been examined for language as an abstract system, they are essentially the result of changes in the mental grammars of actual language users. In constructionist approaches to change, grammatical items are modelled as schematic nodes in a hierarchical and dynamic associative network, which implies inter alia that constructions and the links between them are subject to change through analogical attraction, both in terms of formal and semantic make-up, but also in terms of frequency (Hilpert 2014). While such changes have been attested at the community level, it is still unclear to what extent similar processes are at work in language change in individuals. We tackle this key problem through analysis of individual-level change in the case of *it*-clefts, and the ramifications for related constructions, information structure and communicative function.

Data come from a sample of the EMMA-corpus (*Early-Modern Multiloquent Authors*), a new large-scale longitudinal corpus comprising the writings of 50 individuals from the 17th-century London-based elite, all of whom were prolific over a prolonged period of time during their adult lives. Features of the *it*-cleft construction undergo substantial change during the period in question with the rise of new possible foci in clefts, such as the time adverbial in (1), as well as new performative uses of the construction which exhibit backgrounding of subject matter and opinion-as-fact framing functions (demonstrated in (2)).

1) "*It is not yet that the general Rule fails, because of this Exception...*" (L'Estrange, 1680, *The Answer to the appeal expounded*)
2) *Aman. Pray be so just then to me, to believe, 'tis with a World of Innocency I wo'd enquire, Whether you think those Women we call Women of Reputation, do really 'scape all other Men* (1696 VANBR-E3-P1, 43.108 from Patten, 2012)

The growth of permissible focus types in the *it*-cleft seems to proceed systematically with adverbials of means and reason attested in the construction prior to those of time and place (Patten 2012). I present corpus evidence that tentatively suggests that the same development is also manifested at the level of the adult individual. Loss of various functions of word order variation during the rigidification of the SV(O) word order may have contributed to the growth of acceptable types of adverbial foci as other strategies, such as inversion, became less viable. It is explored how this shift, which takes place in the syntactic system at large, interacts with more functional motivations specific to clefts. Information structural licensing strategies, such as contrastive focus, are increasingly used to frame marked foci types and increase their rates of acceptability. A possible motivation underlying such extensions is the desire for higher expressivity (e.g. Haspelmath 1999). The interplay of factors allows for new foci to become a productive element of the construction. The analysis of the interaction between clefts, information structure and the grammar at large will add to our understanding of inter-construction (paradigmatic) relations in a constructionist perspective.

References

Haspelmath, M. 1999. *Why is Grammaticalisation Irreversible?*. Linguistics 37.6: 1043-68.

Hilpert, M. 2014. *Construction Grammar and its Application to English*. Edinburgh: Edinburgh University Press.

L'Estrange, R. 1680. *The Answer to the Appeal Expounded*. Oxford, UK: Text Creation Partnership (2005).

Patten, A. 2012. *The English It-Cleft: A Constructional Account and Diachronic Investigation.* Berlin: De Gruyter.

Discourse states, not syntactic feature assignments, control ellipsis formation

Volker Struckmeier & Dennis Ott

(University of Cologne & University of Ottawa)

We present evidence that syntax does not designate ellipsis sites, contrary to some well-established theories. Rather, deletion is based on common ground properties and discourse functions.

Building on Ross (1969), Merchant (2001, 2004) proposes fragment answers (1a) to derive analogously to sluices (1b): In his *move-and-delete* (MDA) approach, materials from islands (that cannot syntactically evacuate a TP that is *E*-marked for deletion) are excluded as fragments (1c):

1.   a) Q: Who did John kiss?   –   A: [$_{CP}$ Mary   [$_E$ John kissed t]]
       b) John kissed someone   –   guess   [$_{CP}$ who [$_E$ John kissed t]]
       c) Q: Would John hire somebody who tries to fix a car with a hammer?
          A: *No, a monkey wrench [$_E$ John would hire somebody [$_{CP\ island}$ who tries a car with t]]

We present two observations that are anathema for the MDA: Firstly, German modal particles (MPs) cannot be focussed (3a), nor move (alone, or with associated materials, 3b). But contrary to MDA predictions, they appear in fragments (3c) alongside foci$_F$ (CAPS = nuclear stress):

2.   a) Q: How likely would John kiss Mary?   –A: *   (John hat) WOHL$_{+F}$ (Maria geküsst)
                                                       John has probably Maria kissed
       b) A:*WOHL$_{+F}$/wohl hat John Maria geküsst./   A: *   Maria WOHL hat John geküsst.
       c) Q: Who did John kiss?   –   A: MaRIA$_{+F}$ wohl.
       Intended reading for all answers: 'John has probably kissed Maria'

We propose that deletable materials are *discourse recoverable*: Elements that *happen* not to be given in a certain discourse (+F) form a natural class with elements that *cannot* be F-marked (MPs).

Recoverable (-F) elements optionally delete – but crucially, *in situ*, i.e. without vacating an E-site:

3.   a) Peter asked Bob about syntax. – And who$_{+F}$ did he ask$_{-F}$ [about phonology]$_{+F}$?
       b) Peter went to to the movies, but I don't know who$_{+F}$ he went to the movies$_{-F}$ with$_{+F}$.

Without MDA movements, (3a) does not require problematic multiple movements, and swiping (3b) reduces to preposition stranding. As for the restriction in (1c), witness our second observation:

4.   Q: Would John hire a man [who tries to fix a car with a hammer]?

a) A: Would J. hire sb. [who tries to fix a car with a hammer]? Yup, sounds like our John!

b) A'Would J. hire sb. [who tries to fix a car with a [SCREW driver]], you mean? I guess so!

The relative clauses in (4a/b) are not different structurally from the island structure in (1c). But:

- In (1c), the answer particle 'no' has *rejected* the Q proposition a CG status under the focus value of the *at-issue* DP '[somebody [who ...]]'. Thus, 'a screwdriver' asserts a (nonsensical) alternative to the (whole) object DP (i.e. answers a *new* question under discussion, *qud*).
- However, the questions in (4b/c) do *not* deny the proposition in Q a recoverable status (and do *not* move on to a new *qud*), but confirm CG status directly (4a), or *modulo* a correction (4b).

Ellipsis should thus be modelled by semanto-pragmatic mechanisms. Additional syntactic restrictions lines are theoretically unnecessary (note: *focus* – of all things! – triggers the movement in MDA analyses!), and empirically problematic (as central MDA predictions are not borne out).

References

Merchant, Jason 2001: *The syntax of silence*. OUP.

Merchant, Jason 2004: "Fragments and ellipsis". *Linguistics & Philosophy* 27.6, 661-738.

Ross, John R. 1969. "Guess who?" In *CLS 5:* eds. Robert Binnick, Alice Davison, Georgia Green, and Jerry Morgan, 252–286. CLS, Chicago.

A pinch of ingenuity, a dash of courage and a speck of luck - The case of vague non-numerical quantifiers denoting small quantity (English-Czech Interface)

Jarmila Tárnyiková

(Palacky University Olomouc)

The paper focuses on vague non-numerical quantifiers of small quantity (VNQ_{sq}) in the structural sequence (Det_{indef} + VNQ_{sq} + of + NP), as in *an atom of truth*, used in the figurative (metaphoric) meaning and approached as one of the possible manifestations of vague language discussed in Channell (1994).

The methodology of approach and data processing copies to a significant degree my previous contribution to the field (Tárnyiková, 2010), in which attention was paid to a cross-language (English-Czech) analysis of forms, functions and distribution of VNQ_{sq} of large quantity (immensity) as emergent from the BNC and CNK (Český národní korpus – Czech National Corpus) data. The present contribution aims at offering   a mirror image to the already 'mapped' domain of large quantity by focusing on the other pole of the vague non-numerical quantification, i.e. small quantity. The cross-language quantitative and qualitative analysis of typologically different languages used in different socio-cultural settings is hoped to reveal both differences in the degrees of semantic saturation within the small quantity space (with the expectations of a more elaborate scale of delicacy in Czech), and differences in collocability, ranging from ad hoc occurrences of VNQ_{sq} + Nouns - to frozen phrases. Consequently, the research questions concern (1) differences in the semantic saturation of the small quantity pole in the compared languages, and (2) the impact of the typological differences of the

compared languages on the spectrum of VNQ$_{sqs}$, and (3) the similarities and differences in collocability preferences in the respective language communities (cf. *not an atom of truth* vs. *ani špetka pravdy* [not a speck of truth] in Czech). The data analysis is based on the activation of both the paradigmatic axis of alternations in VNQ$_{sq}$ (*bit/atom/touch//iota/snippet…*) and the syntagmatic axis of co-occurrences of VNQ$_{sq}$ with quantified entities (*bit of luck/fun/information/money…*). The results, applicable to translation studies and cross-language comparison, should contribute to a better understanding of one domains of language use in which precision is not a priority and vagueness is a vivid contribution to our everyday encounters, in which, as Channell puts it, *what matters is that vague language is used appropriately* (1994:3).

References

Channell, J. (1994). Vague Language. Oxford: Oxford University Press.
Tárnyiková, J. (2010). *Bags of Talent, a Touch of Panic, and a Bit of Luck:* The Case of Non-Numerical Vague Quantifiers. *Linguistica Pragensia,* 20,2, pp. 71-86.

Russian quotatives in Udmurt internet communications

Denys Teptiuk

(University of Tartu)

Recent cross-linguistic studies show that both typologically similar and different languages often share similar markers, signaling the presence of reported discourse (Buchstaller & Van Alphen 2012: XI-XII). Often such a similarity is the outcome of the influence of a more prestigious language of a linguistic area on the choice of a concrete quotative index.

In colloquial Udmurt (Permic branch of Uralic), quotative strategies can be divided into autochthonous ones and those where Russian influence is visible. Autochthonous strategies imply the use of the quotative particle *pe*, the self-quoting particle *pöj*, and complementizer strategy with *verba dicendi* and the clause-final fact type complementizer *šuysa* (Winkler 2011: 138). Russian influence is realized in replication of the Russian quotative particles *mol* (cf. (1)) and *deskat',* and the new quotative index *tipa* 'type of, like'. In complementizer strategy, the Russian complementizers *čto* (cf. (2)) and *budto* 'as if' are used identically to the Russian quotative strategy with *verba dicendi*.

(1) *Nu   tatyn   izvińaťśa   kari,   **mol**   jangyšaj.*
     well   here   appologize.inf (Rus.)   do.pst.1sg   like/qi fail.pst.1sg
     'Well, I apologized here **like/saying** I was wrong' (vk.com).

(2) *Tak   voobšče**šuizy**,   **čto**   630   ad'ami   gurtazy.*
     ptcl   completely   say.pst.3pl   comp   num   person   village.ine3pl
     'So altogether they said, [that] there are 630 people in their village' (Blog subcorpora)

The question arises what are the motivations for the appearance of Russian quotative indexes in colloquial Udmurt. Previous studies show that the use of mixed code in Udmurt (*suro požo* 'mixture, blending') is considered as an attempt to build a new identity associated with urban Udmurt youth and their own code, often referred to as a *city slang* (Edygarova 2013: 11; also Egygarova 2014).

For a deeper understanding of how the choice between autochthonous and Russian quotatives reflects on the new substandard variety of Udmurt, qualitative research is carried out. Data deriving

from social network sites are used as basic material. The choice is motivated by the consideration that the language used in internet communications is the closest written variant of actually spoken language, combining both standard and colloquial speech inside one text (Hellasvuo *et al.* 2014: 13; Pischlöger 2014b: 144).

The research outcomes show that some quotative strategies are used as the result of language contact between Russian and Udmurt (e.g. a collocation of complementizers *čto* and *budto* with speech and non-speech verbs), while others are used to fill in gaps (cf. Matras 2009: 106, 138, 149-150) in substandard Udmurt and provide the material for new quotative strategies (e.g. new quotative *tipa* 'type of, like'). Several markers are used concurrently (indigenous quotative particle *pe* vs. Rus. *mol* and *deskat'*), although the difference can be still pointed out in epistemic meanings that these markers bear. As a result, the appearance of quotative particles in different contexts can be observed.

References

Buchstaller, Isabelle & Ingrid Van Alphen (2012). "Introductory Remarks on New and Old Quotatives". In: Isabelle Buchstaller and Ingrid van Alphen (eds.). Quotatives: Cross-linguistic and cross-disciplinary perspectives. Amsterdam: John Benjamins, XII – XXX.

Edygarova, S.V. (2013). "Об основных разновидностях современного удмуртского языка [On main varieties of the modern Udmurt language]", Ежигодник финно-угорских исследований [Yearbook of Finno-Ugric research], (3).

Edygarova, Svetlana (2014). "The varieties of the modern Udmurt language". FUF 62, 376-398.

Helasvuo, Marja-Liisa, Marjut Johansson ja Sanna-Kaisa Tanskanen (2014) (toim.). "Kieli verkossa: Näkökulmia digitaaliseen vuorovaikutukseen [Language in the web: Viewpoints on digital interaction]". Helsinki: Suomalaisen Kirjallisuuden Seura, 9-29.

Matras, Yaron (2009). Language contact. Cambridge: Cambridge University Press.

Pischlöger, Christian (2014b). "Udmurtness in Web 2.0: Urban Udmurts resisting language shift". Finnisch-Ugrische Mitteilungen 38, 143-162.

Winkler, Eberhard (2011). Udmurtische Grammatik. Wiesbaden: Harrassowitz.

High and Higher Datives – Experimental insights on the Romanian Ethical Dative

Alina Tigau & Mihaela Tănase-Dogaru
(University of Bucharest & University of Köln & University of Bucharest)

The literature on Romanian dative clitics differentiates between core (subcategorized) (CD) and non-core datives (NCDs), also known as high datives (HDs) on account of their occupying a high applicative phrase above *vP/VP* (Pylkkänen 2002, 2008 a.o.). Among the latter, one distinguishes between datives of (inalienable) possession, benefactive/adversative, affected/experiental and ethical datives.

This paper aims at providing new insights into the syntactic characteristics of Romanian ethical dative clitics, which we distinguish from other types of NCDs (cf. Jouitteau & Rezac 2008 a.o.), and at paving the way towards an appropriate analysis of these elements. The proposed account rests on newly obtained experimental data uncovering the special status and behaviour of EDs. Indeed, there

exist a number of properties setting EDs aside from other NCDs: EDs are 'non-actantial' datives, since they are not part of the valency of the verb but have an expressive function, grounding 'the event structure in relation to the speech participants' (Delbecque & Lamiroy 1996). As such, they do not affect the truth conditions of the sentence in which they occur, unlike the other NCDs, but merely invoke the addressee or the speaker as a witness or as a vaguely affected party. Furthermore, EDs allow multiple clitic clusters:

(1). Dar nici   Greuceanul nu se   lăsă mai prejos: unde nu se încordă odată
      But neither Greuceanu not refl. gave up: where not refl. strained once

și   când **mi ți-l**   apucă   pe zmeu de umeri   și   dădu cu el   de pământ,
and when **me.ED you.ED**-him.acc grabbed *pe* ogre by shoulders and threw with him to the ground,

praf și pulbere se   făcu   netrebnicul.
dust and ashes refl. became wicked.the
ʹBut Greuceanu rose up to the challenge grabbed the ogre and threw him tot he ground so that the wocked one perished.ʹ

This is not possible with other instances of NCDs. Note, moreover, that the multiple clusters of EDs may only contain a 1st and a 2nd person pronoun. When a third person dative clitic pronoun appears in the cluster, it may be interpreted as an argumentative, a possessive, beneficiary or affected dative. Lastly, unlike other NCDs, EDs do not allow a full corresponding DP pronominal.

The properties uncovered above urge one to draw several conclusions: a) co-occurrence with other NCDs points to the existence of distinct hosting projections. b) the fact that EDs anchors the Speaker/Addresse may prompt one to conclude that EDs merge within the CP, as it has been assumed for German (Abraham 1972). There is, however, strong evidence that EDs are actually merged lower i.e., their occurrence in embedded clauses (infinitives included) and in questions. We are thus led to conclude that EDs merge within TP, in a special projection wherefrom they may be bound by abstract Speaker/Addresse operators from within CP (Sigurðsson 2004) and thus be interpreted as denoting the Speaker/Addresse. Thus, in line with Baker (2008), we propose person to be a derivative notion, the result of operator-variable agreement. Furthermore, in line with Harbour (2006), Michelioudakis (2012) we claim that ED clitics are specified as [+Participant,±author] and that these specifications amount to the interpretable, lexically valued features probed for by the Speaker/Addresse operators in CP. Moreover, given their featural make up, EDs merge into an ApplP carrying an uninterpretable [+Participant] feature, situated below T but above the HighApplP hosting other NCDs.

The analysis makes several correct predictions: the co-occurrence between EDs and other NCDs, the fact that EDs may never surface as fully fledged DPs, their anchoring the Speaker/Addressee to the event denoted by the verb.

References

Abraham, W. 1972. 'The ethic dative in German'. In: F. Kiefer & N. Ruwet (Hg.), *Generative Grammar in Europe*. Dordrecht 1972, 1-20.

Baker, M. 2008. *The syntax of agreement and concord.* Cambridge: C.U.P.

Delbecque, Nicole and Lamiroy, Beatrice. 1996. ʹTowards a typology of the Spanish dativeʹ. In William van Belle and Willy van Langendonck, eds. *Case and grammatical relations across languages: The Dative,* 73-117. Amsterdam: John Benjamins.

Harbour, D. 2006. Person hierarchies and geometries without hierarchies or geometries. Presentation at Leipzig Morphology Colloquium. Available as Queen Mary's OPAL#6.

Jouitteau, M. and M. Rezac. 2008. The French Ethical Dative. 13 syntactic tests, *Bucharest Working Papers in Linguistics*, IX (1): 97-108.

Pylkkänen, L. 2002. *Introducing Arguments.* Doctoral Dissertation, MIT.

Pylkkänen, L. 2008. *Introducing arguments*. MIT Press: Cambridge, MA.

Negative participles in Kambaata

Yvonne Treis

(CNRS-LLACAN)

Kambaata is a Cushitic language of Ethiopia. It has a rich verbal, nominal and adjectival morphology; in the verbal domain, it makes an important morphological distinction between (i) clause-final, fully finite and (ii) clause-medial, semi-finite or infinite verb forms. Converbs are a salient verb type of Kambaata; as semi-finite medial verbs they are used exclusively in adverbial function and marked for switch-reference. Whereas converbs are widespread in the languages of North Africa (Azeb Amha & Dimmendaal 2006; Ebert et al. 2008) and have hence been extensively studied, there are very few languages in Africa that have **true participles** (verb-adjective hybrids).

However, Kambaata has **true negative participles**, a special type of participle that has attracted little attention in the typological and theoretical literature so far. The Kambaata negative participles have no direct affirmative counterparts. They can be formed on the basis of *any* verb in the language, except the defective '(locative) be'-verb, and they can be based on active and passive verbs.
My paper first demonstrates what makes negative participles verbal and adjectival.

Figure 1. Simplified morphological structure of negative participles

Verbal stem	Verbal agreement (with the subject of the clause)	Participle morpheme *-umb*	Adjectival agreement (with the head noun)

Verbal:
- In the first agreement slot after the verbal stem, we find the regular subject agreement morphemes, which are found on all (semi-)finite verbs of the language.
- Negative participles retain the verbal argument structure (/case frame) of their verbal bases completely.

Adjectival:
- In the second agreement slot, we find morphology that is typical of adjectives in the language. Negative participles are marked for masculine/feminine gender and nominative/accusative/oblique case; they thus display gender and case agreement with their head noun.
- All aspectual distinctions (e.g. between imperfective and perfective aspect) are neutralized in the paradigm of negative participles.

The second part of my paper examines in which syntactic functions negative participles are used. They are prototypically used in noun-modifying (relative) clauses (1). If the head noun is dropped, the participle itself receives the nominal inflection – either directly or after having been nominalized.

(1)   [*mát-it*   *maccoocc-i-níi*   *kas-∅-**úmb**-ut*]   *láag-at*Head noun
       one-fNOM   hear-1sPCO-ADD   do_ever-3m-**NEG.PTC**-fNOM voice-fNOM

       gisan-áachch   *báqq*   *át-t*   *ke'-is-soo'-é*   *j-áata* (…)
       sleep-fABL   wake   do-3fPCO   rise-CAUS-3fPVO-1sO.REL   time-fACC

       'When a voice that I had never heard before woke me up from (my) sleep (…).'

As most (non-converbal) subordinate clauses go back to noun-modifying constructions, we find participles in various types of negative adverbial clauses in Kambaata. In combination with the ascriptive/identificational copula (COP2), negative participles are used as the predicate of main clauses and thus express a quality of the subject (2).

(2)   *Út-u-s*   *mexxurr-á*   *kaa'll-∅-**úmb**-u-a*
       thorn-mNOM-DEF   nothing-mACC help-3m-**NEG.PTC**-mPRED-mCOP2
       'The thorn is of no use (lit. is (one which) does not help nothing).'

    The paper is based on a corpus of natural fieldwork data as well as data from elicitation and from local Kambaata publications. It intends to draw attention to a little discussed type of participles and to contribute to broadening the empirical database of the workshop on participles.

References

Azeb Amha & Gerrit J. Dimmendaal 2006. Converbs in an African perspective. In: Ameka, Felix K., Alan Dench & Nicholas Evans (eds), *Catching Languages: Issues in Grammar Writing*, pp. 393-440. Berlin: Mouton de Gruyer.

Ebert, Karen H., Johanna Matthissen, Rafael Suter (eds) 2008. *From Siberia to Ethiopia. Converbs in a Cross-Linguistic Perspective*, pp. 185-220. Zürich: Universität Zürich.

Gender Assignment to French Loanwords in German: A Quantitatively Informed, Principles-Based Approach

Heleen Van Mol & Torsten Leuschner
(Ghent University)

A time-honoured issue at the intersection of language contact with lexicology is the assign-ment of gender to borrowed nouns. Take French nouns in German: since any noun in German must be assigned one of three genders, nouns borrowed from French will be either masculine (*der Balkon < le balcon* 'balcony') or feminine (*die Nuance < la nuance* 'nuance') or neuter (e.g. *das Bataillon < le bataillon* 'bataillon'). However, as French has only two genders (masculine and feminine), the question arises why a particular gender is assigned to a given French loanword when it enters the German lexicon. The issue is all the more intriguing because the assigned gender can seem quite unpredictable, as illustrated e.g. by *le bagage*, which is masculine in French but feminine in German (*die Bagage*), and *la gelée*, which is feminine in French but both masculine and neuter in German (*der/das Gelee*). In other cases there are at least discernible tendencies, as with inanimate masculine nouns in French, which tend to be neuter in German (*das Defizit < le déficit*; Eisenberg 2012: 235) Approaches to the assignment of gender to French loanwords in German have so far been purely qualitative in nature, working from the assumption that gender is assigned to loanwords on the basis of

interacting principles, some of which are semantic in nature and some formal (see most prominently Schulte-Beckhausen 2002). Different (sets of) principles have been proposed by different authors, however (cf. ebd., Rothe 2012), so a systematic investigation is called for to draw the threads together. More importantly, any principles of gender assignment have so far been tested systematically (by Wawrzyniak 1985) only on a sample of 108 French loanwords assembled almost 30 years ago. The time is therefore right for a new, up-to-date sample of French loanwords in German and for quantitative techniques in order to determine the actual significance and interaction of different principles.

Moving beyond a pilot study carried out earlier by Van Mol (in press), the present paper provides fresh answers to both sets of problems by investigating the relative significance of ten principles of gender assignment (four semantic, six formal) in a new sample of 861 current French loanwords drawn from Duden (2015) and checked against the *Deutsches Referenzkorpus* (accessed through the Cosmas2 client, https://cosmas2.ids-mannheim.de/cosmas2-web/). Additionally, special attention will be paid to the relationship of the assigned gender in German with the original gender in French, whose significance has been downplayed in the literature (e.g. Wawrzyniak 1985) even though it shows a highly significant overlap, as this raises difficult questions regarding the potential status of "gender copying" as an additional "principle" of gender assignment. The relevance and efficiency of each principle (cf. Heringer 1986, whose third parameter, validity, is discounted for reasons of logical consistency) is checked per loanword, and hierarchies showing respectively the range and efficiency of each principle are established and then compared.

Afterwards, a bivariate and a multivariate analysis are carried out. The results of the bivariate analysis indicate that out of the eleven tested principles (including "gender copy"), ten do indeed show a statistically significant correlation with the German gender. The next step consists of a multivariate analysis on the basis of a decision tree, which is generated automatically and includes only these principles whose influence on the gender assignment in the whole sample is computed to be statistically significant. Out of the ten principles that proved significant in the bivariate analysis, only four seem to be statistically significant in the whole sample; surprisingly, "gender copying" is among them. More generally, the results confirm the predominance of formal principles over semantic ones, something Eisenberg (2012: 233) suggests is characteristic of gender assignment to loanwords from French as opposed to loanwords from English.

References

(Duden 2015 =) Dudenredaktion (ed., 2015): *Duden Fremdwörterbuch*. 11th, completely revised and updated edition. Berlin: Dudenverlag.

Eisenberg, Peter (2012): *Das Fremdwort im Deutschen*. 2nd, revised edition. Berlin: de Gruyter.

Heringer, Hans Jürgen (1995): "Prinzipien der Genuszuweisung." In: Popp, Heidrun (ed.): *Deutsch als Fremdsprache. An den Quellen eines Faches. Festschrift für Gerhard Helbig zum 65. Geburtstag*. Munich: Iudicum, 203-216.

Rothe, Astrid (2012): *Genus und Mehrsprachigkeit. Zu Code-Switching und Entlehnung in der Nominalphrase*. Heidelberg: Winter.

Schulte-Beckhausen, Marion (2002): *Genusschwankung bei englischen, französischen, italienischen und spanischen Lehnwörtern im Deutschen. Eine Untersuchung auf der Grundlage deutscher Wörterbücher sei 1945*. Frankfurt (Main): Lang.

Van Mol, Heleen (in press): "Das Genus von Gallizismen im Deutschen. Reichweite, Validität und Dominanz von Prinzipien der Genuszuweisung." In: *Germanistische Mitteilungen* 43, 5-30.

Wawrzyniak, Udo (1985): "Das Genus französischer Lehnwörter im Deutschen." In: *Zeit-schrift für Sprachwissenschaft* 4, 201-217.

Differential possessive marking of arguments in action nominalizations: A typological survey

Eva van Lier & Marlou van Rijn
(University of Amsterdam)

Traditionally, the distribution of alienable versus inalienable possessive marking over the core arguments of action nominalizations is accounted for in terms of the semantic factor of 'control': The relationship between agentive (S_A and A) arguments coded as possessors and their 'possessum' – the event denoted by the verb – is viewed as controlled, and hence the alienable construction is used. By contrast, patientive arguments (S_P and P) are viewed as having no control over the relationship to their predicate and are therefore encoded as inalienable possessors (Capell 1949: 172ff; Seiler 1983a: 22, 1983b; Koptjevskaja-Tamm 1993: 210ff; Palmer 2011).

However, early studies on Polynesian languages already show that in many cases agentive arguments of action nominalizations (S_A and/or A) can be encoded as inalienable possessors (Chung 1973; Clark 1981). Moreover, in a pilot study on Central-Eastern Oceanic languages, we found that the effect of control on the possessive coding of arguments in nominalizations is relative rather than absolute. It can be described in terms of a hierarchy of argument types, as given in (1) below: If in a particular language an argument on this hierarchy may be encoded with an inalienable possessive construction, then all arguments to its left will either also take inalienable possessive coding or sentential coding, but not alienable coding.

(1) $P > S_P > S_A > A$

In this paper, we test whether the generalization in (1) also holds for a world-wide sample of ca. 80 languages, using data from relevant WALS chapters (Koptjevskaja-Tamm 2013; Nichols & Bickel 2013), from reference grammars, and from our own earlier work on possessive constructions.

We evaluate the results in light of the traditional 'control' approach to differential possessive coding, and our modified account. In addition, we will draw attention to the role of transitivity and to the fact that certain language-specific patterns are not straightforwardly compatible with the general explanatory principle sketched above, which suggests that such patterns are not all shaped by identical functional factors. Finally, we assess various explanations proposed for possessive coding asymmetries: as is well-known, the expression of alienable possessive marking is cross-linguistically more complex than inalienable possessive marking (Haspelmath 2008 and references therein). We will show how are data support accounts of this asymmetry in terms of frequency as well as iconicity, (cf. Croft 2008).

References

Capell, A. 1949. The concept of ownership in the languages of Australia and the Pacific. *Southwestern Journal of Anthropology* 5(3). 169–189.

Chung, S.1973. The syntax of nominalizations in Polynesian. *Oceanic Linguistics* 12. 641–686.

Clark, R. 1981. Inside and outside Polynesian nominalizations. In J. Hollyman & A. Pawley (eds.), *Studies in Pacific languages and cultures in honour of Bruce Biggs,* 65–81. Auckland: Linguistics Society of New Zealand.

Croft, W. 2008. On iconicity of distance. *Cognitive Linguistics* 19(1). 49–57.

Haspelmath, M. 2008. Frequency vs. iconicity in the explanation of grammatical asymmetries, *Cognitive Linguistics* 19(1).1–33.

Koptjevskaja-Tamm, M. 1993. *Nominalizations.* London: Routledge.

Koptjevskaja-Tamm, M. 2013. Action Nominal Constructions. In M.S. Dryer & M. Haspelmath (eds.), *The world atlas of language structures online*. Leipzig: MPI EVA.

Nichols, J. & B. Bickel 2013. Possessive classification. In M.S. Dryer & M. Haspelmath (eds.), *The world atlas of language structures online*. Leipzig: MPI EVA.

Palmer, B. 2011. Subject-indexing and possessive morphology in Northwest Solomonic. *Linguistics* 49(4). 685–747.

Seiler, H. 1983a. *Possession as an operational dimension of language.* Tübingen: Gunter Narr.

Seiler, H. 1983b. Possessivity, subject and object. *Studies in Language* 7(1). 89–117.

Competition between event nominalizations in Italian

Rossella Varvara & Roberto Zamparelli
(University of Trento – CIMeC)

Event nominalizations (also called *action nouns* or *nomina actionis*, Comrie and Thompson, 2007) have long been of interest for linguists, due to their mixed nominal and verbal properties. Among the world's languages many different types of nominalizations have been identified and studied, on the basis of their argument realization, meaning extensions and aspectual properties (see Koptjevskaja-Tamm, 1993, 2003 for a typological survey). In most languages, more than one type of nominalization is available.

In Italian, a variety of suffixes can derive nouns from verbs (-*ione*, -*mento*, -*ggio*, etc., collectively "*event deverbal nominals*", henceforth **EDN**s, ex.1). In addition, the infinitive verb form can be directly used as a nominal, both with an article ("*nominalized infinitive*", **NI**) and without ("*bare nominalized infinitive*", **BNI**), ex.2. Since only EDN and NI can express the external argument, we focus on them and disregard BNI.

1.   La costruzione di una relazione richiede impegno.
       The construction of a relation requires dedication.
2.   (Il) costruire una relazione richiede impegno.
       (The) construct-INF a relation requires dedication.

In this paper we investigate the productivity and semantic differences between the EDN and NI in Italian, using corpus analyses. Our aim is to understand the rationale behind the choice of one form instead of the other. Although Italian EDNs have been frequently studied (Gaeta, 2002, 2004; Thornton, 1990; Melloni, 2007; Jezek, 2007), their relation with NIs has not received the deserved attention (but see Skytte, 1983; Zucchi, 1993; Simone, 2004; Fiorentino, 2008; Gaeta, 2009).

Our research question is twofold. In which cases can the two strategies be applied to the same verbal root? When both NIs and EDNs are formed, how do they differ in meaning, if they differ at all?

After discussing their productivity indices (computed as in Baayen, 2009), we use a linear regression analysis conducted on a sample of 1000 base verbs extracted from the corpus ITWAC (Baroni et al., 2009) to show that the (in)transitivity of the base verb predicts the frequency of the two nominalization patterns: NIs are preferred with intransitive verbs, whereas EDNs are mainly derived from transitive ones.

In a second study, we inspect the cases in which both patterns are attested, considering a sample of 30 pairs of nominalizations. We perform a collocation analysis (with log- likelihood as association measure, Dunning, 1993; Evert, 2005) of the arguments of NIs and EDNs to detect any significant semantic difference. The analysis reveals that the two patterns realize different senses of the base verb, and that NIs usually express more metaphorical and abstract senses, whereas EDNs encode more concrete and literal ones.

We check these insights by comparing the concreteness scores of the two groups of arguments of NIs and EDNs, under the assumption that more abstract and metaphorical readings will in turn tend to select less concrete arguments. Concreteness values, collected using a Likert scale from 1 to 7, are extracted from two existing dataset, Della Rosa et al. (2010) and Lexvar (Barca et al., 2002). According to a U-test, the median concrete- ness coefficients for NIs and EDNs are very significantly different (Della Rosa: W 9860, $p - value two-tailed < 0.001$, Lexvar: $W=15056$, $p - value two-tailed < 0.01$), confirming our qualitative observation.

References

Baayen, R. H. (2009). Corpus linguistics in morphology: morphological productivity. In A. Lüdeling and M. Kyto (Eds.), *Corpus linguistics. An international handbook*, pp. 900–919. Berlin: De Gruyter Mouton.

Barca, L., C. Burani, and L. S. Arduino (2002). Word naming times and psycholinguistic norms for Italian nouns. *Behavior Research Methods, Instruments, & Computers* 34 (3), 424–434.

Baroni, M., S. Bernardini, A. Ferraresi, and E. Zanchetta (2009). The WaCky wide web: a collection of very large linguistically processed web-crawled corpora. *Journal of Language Resources and Evaluation* 43 (3), 209–226.

Comrie, B. and S. A. Thompson (2007). Lexical nominalization. In *Language Typology and Syntactic Description vol. III: Grammatical Categories and the Lexicon*, pp. 334– 381. Cambridge University Press.

Della Rosa, P., E. Catricalà, G. Vigliocco, and S. F. Cappa (2010). Beyond the abstract–concrete dichotomy: Mode of acquisition, concreteness, imageability, familiarity, age of acquisition, context availability, and abstractness norms for a set of 417 Italian words. *Behavior Research Methods* 42(4), 1042–1048.

Dunning, T. (1993). Accurate methods for the statistics of surprise and coincidence. *Computational linguistics* 19(1), 61–74.

Evert, S. (2005). *The statistics of word cooccurrences : word pairs and collocations*. Ph. D. thesis, University of Stuttgart.

Fiorentino, G. (2008). Action nouns and the infinitive in Italian. *Romanische Forschungen* 120(3), 3–28.

Gaeta, L. (2002). *Quando i verbi compaiono come nomi. Un saggio di Morfologia Naturale*. Milano, Franco Angeli.

Gaeta, L. (2004). Derivazione nominale deverbale. In M. Grossmann and F. Rainer (Eds.), *La formazione delle parole in italiano*. Tubingen: Max Niemeyer Verlag.

Gaeta, L. (2009). A metà tra nomi e verbi: i nomi d'azione tra morfologia, sintassi e semantica. In E. Lombardi Vallauri and L. Mereu (Eds.), *Spazi linguistici. Studi in onore di Raffaele Simone*, pp. 111–123. Roma: Bulzoni.

Jezek, E. (2007). Polysemy of italian event ominals. *Faits de Langues, Numéro special "Nominalisations"* 30, 251–264.

Koptjevskaja-Tamm, M. (1993). *Nominalizations*. London: Routledge.

Koptjevskaja-Tamm, M. (2003). Action nominal constructions in the languages of Europe. In F. Plank (Ed.), *Noun phrase structure in the languages of Europe*, pp. 723–759. Berlin: Mouton de Gruyter.

Melloni, C. (2007). *Polysemy in word formation: the case of deverbal nominals*. Ph. D. thesis, University of Verona.

Simone, R. (2004). L'infinito nominale nel discorso. In P. D'Achille (Ed.), *Generi, architetture e forme testuali: atti*, pp. 73–96. Firenze: Cesati.

Skytte, G. (1983). *La sintassi dell'infinito in italiano moderno*. Museum Tusculanum Press.

Thornton, A. M. (1990). Sui deverbali italiani in-mento e -zione (I). *Archivio glottologico italiano* 75(2), 169–207.

Zucchi, A. (1993). *The Language of Propositions and Events. Issues in the Syntax and the Semantics of Nominalization.* Number 51 in Studies in Linguistics and Philosophy. Netherlands: Springer.

Evidentiality, Reported Discourse, and Grammatical Constructions: The case of the (Dutch) *inquit*-construction

Arie Verhagen

(Leiden University)

Evidentiality, the expression of source of information, is conceptually (and sometimes also historically) linked to reported discourse, the representation of the speech or thought of others whom a speaker/writer is talking/writing about (Aikhenvald 2004: 132ff). Several lexical and grammatical constructions in several languages exhibit properties of one as well as the other. For German, for example, Vanderbiessen (2016) proposes a "cline" from reported discourse to evidentiality, on which several constructions occupy different positions. Following the line of thinking developed in Croft (2001), this raises the theoretical question whether it actually makes sense to consider evidentiality and reported discourse as general (cross-linguistically valid) functional (let alone formal) *categories*, as a language can have several constructions exhibiting some features of both, and such constructions are moreover language specific. In fact, this issue already arises on the side of speech and thought representation (STR; cf. Lu & Verhagen 2016). This paper reports on a usage-based investigation of different grammatical patterns involved in STR and evidentiality in Dutch (in most detail) and in English.

Examples of the standard STR categories (Dutch with English translations) are :

- Direct Discourse (DD): [*Donald dacht*] *"Volgend jaar kan ik president zijn"* ('Donald thought: "Next year I may be president"');
- Indirect Discourse (ID): [*Donald dacht*] *dat hij het volgende jaar president kon zijn* ('Donald thought that he might be president the next year');
- Free Indirect Discourse (FID): [*Donald werd steeds zenuwachtiger –*] *Volgend jaar kon hij president zijn*, 'Donald got more and more nervous – Next year he might be president').

There are linguistic features distinguishing these types of STR, but an analysis of usage shows that there are more grammatical properties than the usual ones, which also make a difference for the distribution of responsibility for different parts of the relevant discourse fragments.

Usually, sentences of the type *He said: Today I am announcing my resignation* and of the type *Today I am announcing my resignation, he said* are both categorized as DD, while *Today he was announcing his resignation, he said* is categorized as FID. However, distributional and conceptual considerations support the view that the latter two are instances of a single construction [X$_{[V2\text{-clause}]}$- Reporting clause] in Dutch – the *inquit*-construction–, which allows (variation in the) mixing of viewpoints in X and has certain evidential characteristics, while the construction [Reporting clause- X$_{[V2\text{-clause}]}$] – the citation-construction– signals a complete shift to the perspective of a character. The data are taken from the subcorpus of periodicals in the Dutch SONAR corpus (about 300 instances of each pattern).

Finally, the situation in English is slightly different, as the postposed reporting clause comes in two variants: S-V and V-S ('inversion'), the slots of which do not have exactly the same distributional and functional profile. Thus, even closely related languages do not 'cut up' the conceptual space of evidentiality/reportativity in exactly the same way, reinforcing the conclusion that this space does not contain categorical boundaries (though it may contain attractor points).

References

Aikhenvald, Alexandra Y. (2004). *Evidentiality*. Oxford: Oxford University Press.
Croft, William (2001). *Radical Construction Grammar. Syntactic Theory in Typological Perspective*. Oxford: Oxford University Press.
Dancygier, Barbara, Wei-lun Lu, Arie Verhagen (eds.) (2016). *Viewpoint and the Fabric of Meaning*. Berlin/New York: De Gruyter Mouton.
Lu, Wei-lun, & Arie Verhagen (2016). Shifting viewpoints: How does that actually work across languages? An exercise in parallel text analysis. In: Dancygier et al. (2016), pp.169-190.
Vanderbiessen, Jeroen (2016). Mixed viewpoints and the quotative-reportive cline in German: Reported speech and reportive evidentiality. In: Dancygier et al. (2016), pp.41-91.

Correlates of restructuring in Bantu gender systems

Annemarie Verkerk & Francesca Di Garbo

(Max Planck Institute for the Science of Human History & Stockholm University)

The Bantu languages are well known for their remarkable gender systems (a.k.a. noun class systems). These are non-sex-based and typically consist of more than five distinctions with semantic and formal assignment. Gender markers are prefixal, they display cumulative exponence with number, and are very pervasive in discourse: nouns are overtly marked for gender, and various types of adnominal modifiers, pronouns, and predicative expressions inflect in agreement with the gender of nouns (Maho 1999, Katamba 2003). While this type of gender system is attested in most Bantu languages (e.g., Duala, ISO: dua), some languages within the family display instances of restructuring: partially animacy-based gender marking (e.g., Swahili, ISO: swh); heavily animacy-based gender marking (e.g., Kinshasa Lingala, ISO: lin), and no gender marking at all (e.g., Komo, ISO: kmw).

This paper is a diachronic typological study of the Bantu gender marking systems. The following questions are addressed: (1) what are the patterns of language change that account for the transition(s) from the Duala to the Swahili, Kinshasa Lingala, and Komo systems? (2) How do we explain this variation and its distribution? In order to answer these questions, we look at a sample of 120+ Bantu languages, the majority of which is spoken in the northernmost Bantu-speaking area, where heavily

reduced systems are attested (Maho 1999). Each language is coded for: how many gender distinctions are marked on nouns and outside nouns; the word classes that carry gender marking besides nouns; whether (and where) animacy plays a role in the gender marking system; whether neighboring languages are Bantu, non-Bantu, both.

Some preliminary results are presented in the Figure. The sample languages are plotted based on two variables: "Traditional vs. Restructured systems" and "Genealogical affiliation of neighboring languages''. The map shows that, in the northernmost Bantu-speaking regions, languages with restructured systems (animacy-based and/or heavily reduced) tend to cluster geographically, and to be also surrounded by non-Bantu-speaking neighbors. This distribution is in line with Nichols' (2003: 303) observation whereby "languages that lose gender are neighbors of each other and/or have non-sisters as neighbors". However, contact with non-Bantu languages cannot be the only explanation. Restructured gender systems are also found further south, where they are surrounded by Bantu languages only. Furthermore, in the south, many languages with both Bantu and non-Bantu neighbors have traditional gender marking systems. In order to address these issues, we intend to study the emergence and distribution of restructured gender marking systems by means of phylogenetic comparative methods, using Grollemund et al.'s (2015) phylogenetic tree as a reference genealogy. We expect to find that animacy encroaches the gender marking system starting from anaphoric pronouns and gender markers on verbs, and that gender marking on nouns is more stable than gender marking on other word classes. In addition, we expect that a variety of demographic variables interacts with changes in the Bantu gender marking systems, e.g., contact with non-Bantu communities, number of second language speakers, and potential substrate effects from non-Bantu neighboring communities in the past.

The language sample
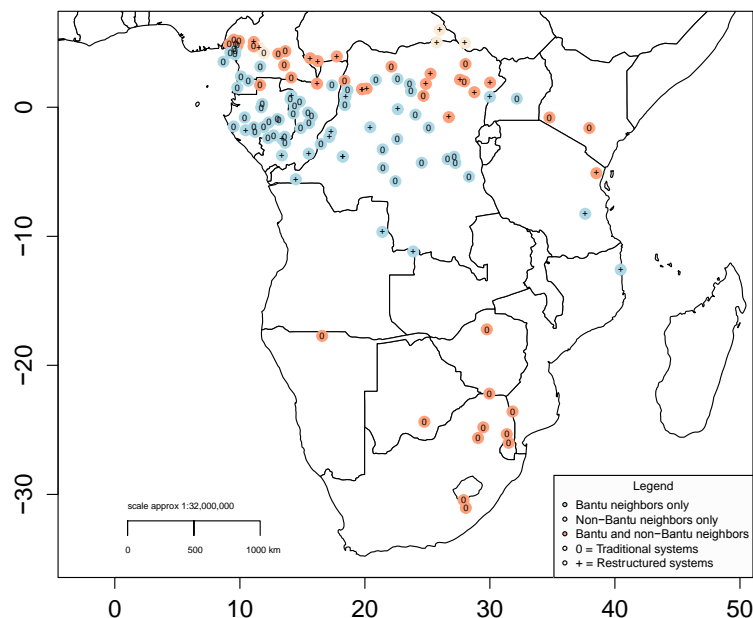
References

Grollemund, Rebecca, Branford, Simon, Bostoen, Koen, Meade, Andrew, Venditti, Chris, & Pagel, Mark. 2015. Bantu expansion shows that habitat alters the route and pace of human dispersals. *Proceedings of the National Academy of Sciences,* 112(43): 13296–13301.

Katamba, Francis. 2003. Bantu nominal morphology. In Nurse, D. & Phillipson, G. (Eds.), *The Bantu languages*, pp. 103-120. London: Routledge.

Maho, Jouni. 1999. *A comparative study of Bantu noun classes*. Göteborg: Acta Universitatis Gothoburgensis.

Nichols, Johanna. 2003. Diversity and stability in language. In Janda, R. D. & Joseph, B. D. (Eds.), *Handbook of historical linguistics*, pp. 283-310. London: Blackwell.

English-Estonian code-copying: Combining contact linguistic and cognitive approach

Anna Verschik

(Tallinn University)

The paper combines usage based approach as suggested by Backus (2012, 2015) with code-copying framework (CCF) developed by Johanson (1992). My departure points is that changes in morphosyntax and lexicon are to be considered in the same terminological framework, as is done by Johanson, because there is the same underlying cognitive mechanism (copying) at work. I am going to take further the line of argument suggested by Backus and Verschik (2012) who reconsider traditional borrowing hierarchies and claim that the type of meaning and frequency affect the degree of copying that can be global (lexical borrowing or codeswitching in traditional terminology), selective (structure, pattern) or mixed.

I am using data from Estonian fashion and life-style blogs (about 150,000 tokens). Being monological asynchronous genre, blogs provide a window into individual language use, multilingual repertoire, entrenchment of English items and patterns (Backus 2012) and evolution of multilingual speech. According to Matras (2009, 2012) and Backus (2012), change in use starts from a multilingual individual and this is why contact linguistics should focus on such individuals in addition to multilingual communities.

It will be shwon that not only semantically specific or transparent items (analytic verbs, compounds) are attractive for copying (in the sense of Johanson 2002). Pragmatic prominence, perceived novelty, metaphoricity and expressive connotation are factors promoting global copying. The data show that the presence of code alternation (stretches in another language, Johanson 2002, Muysken 2000) is better explicable by meaning than by structural factors or macro-sociolinguistic factors, such as typological distance, proficiency in each language, prestige, dominance in use, type of community etc (Muysken 2000: 247 ff) because English alternations in the blogs are mostly idioms, fixed expressions or syntactically autonomous units with a strong emotional colouring. I assume that the difference between insertions and alternations is not always clear; it is possible that both are brought about by certain types of meaning.

References

Backus, Ad. 2012. A usage-based approach to borrowability. Tilburg Papers in Culture Studies. Paper 27.https://www.tilburguniversity.edu/research/institutes-and-research-groups/babylon/tpcs/download-tpcs-paper-27.pdf.htm

Backus, Ad. 2015. A usage-based approach to code-switching: a need to reconcile structure and function. In Gerald Stell and Kofi Yakpo (eds.), *Code-switching between structural and sociolinguistic perspectives,* 19–37. Berlin: Mouton de Gruyter.

Backus, Ad and Verschik, Anna. 2012. Copyability of (bound) morphology. In Lars Johanson and Martine Robbeets (eds.) *Copies versus cognates in bound morphology*, 123–149. Leiden: Brill.

Johanson, Lars. 1992. *Strukturelle Faktoren in türkischen Sprachkontakten* (Sitzungsberichte der Wissenschaftlichen Gesellschaft an der J. W. Goethe-Universität Frankfurt am Main, 29: 5). Stuttgart: Steiner.

Johanson, Lars. 2002. Contact-induced change in a code-copying framework. In Mari C. Jones and Edith Esch (eds.), *Language change. The interplay of internal, external and extra-linguistic factors*, 286–313. Berlin, New York: Mouton de Gruyter.

Matras, Yaron. 2009. *Language Contact*. Cambridge, New York: Cambridge University Press.

Matras, Yaron. 2012. An activity-oriented approach to contact-induced language change. In Claudine Chamoreau and Isabelle Léglise (eds.), *Dynamics of contact-induced language change*, 17–52. Berlin: Mouton de Gruyter.

Muysken, Pieter. 2000. *Bilingual Speech: A Typology of Code-mixing*. Cambridge: Cambridge University Press.

Expectations shaping grammar: Searching for the link between tense-aspect and negation

Ljuba Veselinova
(Stockholm University)

In many languages there is a distinction between the plain negation of a situation and the negation of a situation with expectation for its realization. For instance, in Digo, a Bantu language from Kenya and Tanzania, negation is expressed by the prefix *ta-* for a number of tenses, including the anterior, cf. (1b). When the speaker intends to communicate that an event has not yet occurred but it may, the suffix–*dzangbwe-* has to be used, cf. (1c). It replaces the anterior marker *–ka-* and it is a bound, negative polarity item. For a brief discussion of similar expressions, see Comrie (1985), Contini-Morava (1989), van der Auwera (1998), Zeshan (2004), the list of references given here is minimal.

(1)   Digo [Glottocode digo1243] (Nicolle 2013: 150, 135)
  a.   *u-ka-rim-a*   b.   *ta-m-ka-fwih-a*
        2SG-ANTERIOR-farm-FINAL_VOWEL   NEG-2PL-ANTERIOR-dance-
        'You have farmed/you farmed'   'You have not danced'
  c.   *ta-ri-dzangbwe-dung-a*
        NEG-5-INCEPTIVE-pierce-
        'It has not yet pierced'

In most languages of Europe the distinction outlined above is optional. In many other languages of the world, the distinction based on presence or absence of speaker's expectations for the occurrence of a non-realized situation has a more categorical status. That is, it has to be expressed, just as temporal reference has to be expressed for verbs in Germanic languages by means of different tenses. The term *not-yet gram* refers to the grammatical encoding of speaker's expectations for the realization of a non-realized event. The main goal of this work is to gain a better understanding of the spread, functions and evolution of not-yet grams in the languages of the world.

The results reported here are based on data obtained from several different sources: (i) grammars for a stratified sample with world coverage which consists of 81 languages (S1); (ii) a convenience

sample of parallel texts (S2); (iii) a questionnaire which I use to work with speakers. A not-yet gram is identified as such when all or most of the following conditions are met: (i) it replaces the SN-marker; or (ii) it is part of an invariant construction; (iii) it can be demonstrated to form oppositions with other tense-aspect (TA) grams in its language; (iv) its use is obligatory. Not-yet grams are identified in 28 languages (34.6%) of S1. Thus they appear as a stable cross-linguistic phenomenon since they cover a solid one third of a stratified sample. They incorporate expectations that a non-realized situation may materialize; there are also languages where not-yet grams are also used to indicate imminent future. Not-yet grams appear to evolve often as a frequency effect of common (erstwhile) collocation between a negator and another word such as 'still/yet/in time'. In many languages the gram shows a considerable amount of *maturation,* cf. Dahl (2004), in that it is no longer a transparent univerbation but rather an independent morpheme. There are also instances of metaphorical transfer such as Vietnamese *chửa* 'pregnant' > *chửa* 'not-yet gram'. In many grammatical descriptions not-yet grams are described as negative correspondents of the PERFECT. However, among the 28 languages where they are observed, there are 10 languages with a not-yet gram but the language in question has no corresponding PERFECT or a related category in the affirmative. This shows that not-yet grams may emerge independently and form functional oppositions in the domain of negation only.

Apart from bringing to light a hitherto relatively neglected lexico-grammatical category, with this work I also seek to pave the way for a more systematic study of the asymmetries between TA systems in the affirmative and in the negative domain.

References

Comrie, Bernard. 1985. *Tense* Cambridge: Cambridge University Press.

Contini-Morava, Ellen. 1989. *Discourse Pragmatics and Semantic Categorization: The Case of Negation and Tense-aspect with Special Reference to Swahili* Berlin: Mouton de Gruyter.

Dahl, Östen. 2004. *The growth and maintenance of linguistic complexity*. Amsterdam/Philadelphia: John

Benjamins Publishing Company.

van der Auwera, Johan. 1998. Phasal adverbials in the languages of Europe. *Adverbial Constructions in the Languages of Europe*, ed. by J. van der Auwera & D.P. Ó Baoill, 25-145. Berlin/New York:

Mouton de Gruyter.

Zeshan, Ulrike. 2004. Hand, head, and face: Negative constructions in sign languages. *Linguistic Typology* 8.1-58.

Is a New IPA Sibilant Symbol Needed?

Aurelijus Vijūnas

(National Kaohsiung Normal University)

Among the sibilants of the languages of the world, one frequently attested sibilant does not possess a special IPA symbol. This sibilant is normally denoted with the letter *s* in languages that have it, and since it often represens the only phonological sibilant in these languages, it may be successfully denoted by the symbol /s/ phonologically. However, *phonetically*, this sibilant is very different from the familiar dentialveolar sibilant [s] as found in English, French, German, Russian, Norwegian, and many other languages, being much more hushing. Its hushing character results from a more retracted position of the tongue, as the point of contact is in the post-alveolar region (as can be seen from

palatograms), and a much wider channel forming between the blade of the tongue and the palatal/alveolar region than the channel observed in the articulation of the dentialveolar ("English") *s*. From the point of view of articulation, this sibilant may be said to occupy an intermediate position between the hissing dentialveolar [s] and the hushing palato-alveolar [ʃ], and it is audibly different from both.

This fricative is well attested among the languages of the world, including many of the Formosan languages of Taiwan (Tsou, Bunun, Seediq, etc.), the Inuit languages, Greek, Castilian Spanish, Finnish, Danish, Faroese, and it is especially prominent in Icelandic, where it is the only sibilant in the whole system, both phonemically and phonetically.

This consonant is routinely represented with the symbol [s] in scholarly literature (Tung 1964, Lockwood 1977, Brink et al. 1991, Gíslason & Þráinsson 1993, Alarcos Llorach 1994, Rögnvaldsson 1994, Þráinsson 1995, Thráinsson et al. 2004, Zeitoun 2005, to mention a few), which is inaccurate, as the articulation of the typical dentialveolar [s] and the retracted "Icelandic" kind of *s* is so different that replacing one with the other creates an impression of a strong foreign accent, and the audible difference between them is much more obvious than the difference between such pairs as [m] vs. [ɱ], [ʃ] vs. [ɕ], or [ʋ] vs. [w].

For the sake of precision and clearer distinction between the hissing dentialveolar [s] and the retracted ("Icelandic") *s*, introduction of a special phonetic symbol for the retracted kind of *s* may be considered, along with an adjustment of the places of articulation in the IPA consonant chart. For systematic purposes, it would also be desirable to design a new symbol for the voiced variant of this sibilant, a retracted *z*. Although this voiced consonant is probably not as widely attested as its voiceless counterpart, it does occur sporadically in some voiced environments in Spanish, e.g. *Is̱landia* 'Iceland'.

References

Alarcos Llorach, E. 1994. *Gramática de la lengua Española*. Madrid: Espasa Calpe.

Brink, L.; J. Lund; S. Heger; N. J. Jørgensen. 1991. *Den store danske udtaleordbog.* Under medvirken af Harry Andersen, Ebbe Nielsen og Suzanne Strange. København: Munksgaards Ordbøger.

Gíslason, I. and H. Þráinsson. 1993. *Handbókin um íslenskan framburð*. Reykjavík: Rannsóknastofnun Kennaraháskóla Íslands.

Lockwood, W. B. 1977. *An Introduction to Modern Faroese.* Tórshavn: Føroya skúlabókagrunnur.

Rögnvaldsson, E. 1994. *Íslensk hljóðfræði.* Kennslukver handa nemendum á háskólastigi. Reykjavík: Málvísindastofnun Háskóla Íslands.

Thráinsson, H., et al. 2004. *Faroese: An Overview and Reference Grammar.* Tórshavn: Føroya Fróðskaparfelag.

Tung, T'ung-ho. 1964. *A Descriptive Study of the Tsou Language, Formosa*. Institute of History and Philology, Academia Sinica. Special Publications No. 48. Taipei, Taiwan, China.

Þráinsson, H. 1995. *Handbókin um málfræði.* Reykjavík: Námsgagnastofnun.

Zeitoun, Elizabeth. 2005. "Tsou". In Adelaar, K. Alexander and Nikolaus Himmelmann, eds. 2005. *The Austronesian languages of Asia and Madagascar*. London: Routledge.

A usage-based approach to demonstrative reinforcement cycles

Urd Vindenes

(University of Oslo)

In general terms, grammaticalization can be described as a process which creates grammatical elements from lexical items. Certain parts of the grammar however, including demonstratives and some negation markers, do not seem to emerge through grammaticalization, but through other processes. Diessel (1999) suggests, on the basis of a large sample of typological and diachronic data, that demonstratives do not develop from lexical expressions such as nouns or verbs. The question then arises as to how demonstratives come about.

In this paper, I will present an analysis of the development of North Germanic demonstratives, which might shed new light on possible and probable developmental paths of demonstratives. The analysis is based on spontaneous speech data obtained from the Nordic Dialect Corpus (Johannessen et al., 2009), but it also includes cross-linguistic considerations.

I hypothesize that one possible source of new demonstratives is *reinforcement* of older demonstratives. Demonstrative reinforcement is a common phenomenon in both Germanic and Romance languages (cf. Bernstein, 1997 and van Gelderen, 2011), as well as in other language families (cf. Diessel, 1999 p. 28–32). For instance, object demonstratives ('this'/'that') can be reinforced by adverb-like elements:

1) ***den herre*** *boka*   (Norwegian)
    that here   book-the
    'this book'
2) ***ce*** *livre-**là***   (French)
    that book-there
    'that book'

Furthermore, in the Trøndelag variety of Norwegian, the original demonstrative *den* 'that' may be omitted, and the former intensifier may function as a demonstrative on its own: ***herre*** *boka* 'this book'. The development of *herre* (lit. 'here') as an adnominal demonstrative in Trøndelag resembles the well-known *negative cycle* (also *Jespersen's cycle*, cf. Dahl, 1979), by which new negation markers develop through lexical reinforcement of the original negation marker. Demonstratives and negatives share many characteristics in addition to their tendency to be reinforced by other linguistic elements: They are both acquired early in child language, and are both associated with gestures.

Reinforcement of demonstratives is the first step in cyclic renewal. I do not assume that reinforcement is motivated by a need to strengthen a demonstrative, for instance after it has developed into a definite article or personal pronoun, as indicated by, among others, Greenberg (1978). Instead, I argue that we need to look at the basic communicative function of demonstratives, i.e. to identify referents by locating them in discourse space, in order to explain how reinforcement cycles are propelled. The grammaticalization of demonstratives, on the other hand, may happen in parallel with, or subsequent to, reinforcement. Thus, the cyclic development of demonstratives is assumed to resemble a push chain rather than a drag chain. Possible motivations and mechanisms behind the subsequent stages in the cycle, such as competition between constructions and the principle of contrast, will also be addressed.

References

Bernstein, J. B. (1997): Demonstratives and reinforcers in Romance and Germanic languages. *Lingua 102*, p. 87–113.

Dahl, Ö (1979): Typology of sentence negation. *Linguistics 17*, p. 79–106.

Diessel, H. (1999): *Demonstratives: Form, Function and Grammaticalization*. Amsterdam: John Benjamins Publishing Company.

Greenberg, J. H. (1978). How does a language acquire gender markers? *Universals of human language 3*, p. 47–82.

Johannessen, J. B., J. Priestley, K. Hagen, T. A. Åfarli, and Ø. A. Vangsnes (2009). The Nordic Dialect Corpus – an Advanced Research Tool. In Jokinen, K. and E. Bick (eds.): *Proceedings of the 17th Nordic Conference of Computational Linguistics NODALIDA 2009*.

van Gelderen, E. (2011). *The Linguistic Cycle*: *Language Change and the Language Faculty*. Oxford: Oxford University Press.

Verbs of Closing and Opening: Towards a Lexical Typology[11]

Olga Vinogradova, Egor Kashkin, Maria Sidorova, & Daria Zhornik

(National Research University Higher School of Economics; V. V. Vinogradov Russian Language Institute of RAS, Lomonosov Moscow State University; & Lomonosov Moscow State University)

This paper deals with the lexical typology of verbs which refer to closing (cf. English *close, shut, lock, cover,* etc.) and opening (*open, uncover, unlock, unwrap,* etc.). The former domain includes situations of preventing access to a static object by creating a barrier, whereas the latter deals with creating access to a static object by removing a barrier.

We adopt the frame-based approach to lexical typology (Rakhilina, Reznikova 2013, 2016; Koptjevskaja-Tamm et al. 2015), clustering the lexemes and the extralinguistic situations they describe by carrying out collocational analysis. Our current sample (to be enlarged) includes English, Swedish, Russian, Polish, Komi, Khanty, and Hill Mari. Our data sources are typological questionnaires, dictionaries and corpora.

This domain has not been studied in lexical typology so far with the exception of some initial contribution in Bowerman, Choi 2001; Bowerman 2005. However, this lexical area is important primarily due to its wealth of interacting arguments. Previous research on lexical typology mostly embraced situations with one or two participants, cf. all projects on qualities (e.g. Koptjevskaja-Tamm (ed.) 2015) focusing on the variation of a noun in an attributive construction, or on posture with Figure and Ground (Newman 2002), as well as animal sounds with Sound source (Rakhilina et al. (eds.) 2017), etc. For some domains their complicated argument structure was partly outside the research scope, cf. the discussion of cutting & breaking in Majid et al. 2007. Our domain includes a vast inventory of arguments: in addition to Subject ('**Mother** closed the house', '**The tree** obstructs the house') and Object ('to close **the door**'), it includes Blocked space ('to lock **the room**'), Instrument ('to cover a child **with a blanket**'), Type of access ('to close the room **to strangers**' – motion vs. 'to block **someone's view** of the entrance' / 'to hide the entrance **from sb's eyes**' – visual perception). In addition, these arguments may be tied in various relations, cf. contact of Blocked space and Instrument ('[to cry and] cover one's face with hands') vs. distance between them ('to cover one's face with hands [to protect it from a ball]'). Finally, different frames can have various argument sets,

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cf. no Instrument for "self-closing" eyes or mouth. We will discuss how lexical typology can handle such patterns both with respect to our data and in a more general perspective.

In particular, we have singled out the following situations involved in lexical oppositions:

- Barrier in a building (door, window), sometimes requiring Instrument (cf. English *lock*).
- Barrier for the motion, cf. a special Russian verb *perekryt'* (*perekryt' vodu* 'to cut off the water', *perekryt' dorogu* 'to block the road').
- Barrier for the visual perception of a functional part (book, newspaper): cf. the use of Swedish dominant *öppna* 'to open' about a book and impossibility of *stänga* 'to close' (also dominant) in this context.
- "Self-closing" body parts (eyes, mouth), cf. Hill Mari *kᵊmaš* 'to close (eyes)' or Russian *zažmurit'* applicable only to eyes with the additional semantics of intensity.
- Covering (in contact with a surface), with further distinctions between complete and partial coverage, flexible and inflexible Instrument (see Khanty *laŋkti* 'to cover' requiring a flexible Instrument).
- Containers (pan, bag): sometimes the same verb as used for covering with sth. flexible.
- Hole (cf. Izhma Komi *tupkyny* for this frame only), with a possible difference between filling in a 3-D space (English *to plug*) and just covering a split or fracture in a flat surface (English *to seal*).
- Barrier for the visual perception or for impact, e. g. Polish *osłonić*

Some situations of closing can be conceptualized by lexemes from other domains, cf. the references to the same situation in Russian with a verb which primarily describes creating a barrier (*zakryt' zontik* 'lit.: to close an umbrella') or with a verb of changing shape (*složit' zontik* 'lit.: to fold an umbrella'). Examples of this kind (to be elaborated on in the talk) contribute to the discussion on how different domains are related and on the lexicalization process in general, see some background in Langacker 2013: 27–54.

Verbs of opening, as will be shown in the talk, are often asymmetrical to verbs of closing, which provides a cross-linguistic confirmation and some new perspectives to the idea of asymmetry between antonyms (Apresjan 1995; Croft, Cruse 2004). In our case the asymmetry concerns particular lexical collocations, the general structure of semantic oppositions, and constructional patterns.

References

Apresjan, Jury D. 1995. *Leksicheskaja semantika: sinonimicheskie sredstva jazyka* [Lexical semantics: synonymic tools of language]. Moscow: Nauka.

Bowerman, Melissa, Choi, Soonja. 2001. Shaping meanings for language: Universal and language-specific in the acquisition of semantic categories. In M. Bowerman, S. Levinson (eds.). *Language acquisition and conceptual development.* Cambridge: Cambridge University Press, 475–511.

Bowerman, Melissa. 2005. Why can't you "open" a nut or "break" a cooked noodle? Learning covert object categories in action word meanings. In L. Gershkoff-Stowe, D. Rakison (eds*.). Building object categories in developmental time.* Mahwah, NJ: Erlbaum, 209–243.

Croft, William, Cruse, D. Alan. 2004. *Cognitive linguistics.* Cambridge: Cambridge University Press.

Koptjevskaja-Tamm, Maria (ed.). 2015. *The Linguistics of Temperature*. Amsterdam, Philadelphia: Benjamins.

Koptjevskaja-Tamm, Maria, Rakhilina, Ekaterina, Vanhove, Martine. 2015. The semantics of lexical typology. In N. Riemer (ed.). *The Routledge Handbook of Semantics*. Routledge, 434–454.

Langacker, Ronald W. 2013. *Essentials of Cognitive Grammar.* Oxford, NY: Oxford University Press.

Majid, Asifa, Bowerman, Melissa, Van Staden, Miriam, Boster, James. 2007. The semantic categories of cutting and breaking events: a crosslinguistic perspective. *Cognitive linguistics* 2, 133–152.

Newman, John (ed.). 2002. *The linguistics of sitting, standing, and lying.* Amsterdam, Philadelphia: Benjamins.

Rakhilina, Ekaterina, Kor Chahine, Irina, Merle, Jean-Marie (eds.). 2017. *Verba sonandi. Représentation linguistique des cris d'animaux*. Aix-en-Provence: Presses Universitaires de Provence.

Rakhilina, Ekaterina, Reznikova, Tatiana. 2013. Frejmovyj podhod k leksicheskoj tipologii [A frame-based approach to lexical typology]. *Voprosy jazykoznanija* 2, 3–31.

Rakhilina, Ekaterina, Reznikova, Tatiana. 2016. A Frame-based methodology for lexical typology. In P. Juvonen, M. Koptjevskaja-Tamm (eds.). *The lexical typology of semantic shifts*. Berlin: Mouton de Gruyter (see the preprint at http://www.hse.ru/data/2015/02/12/1092528126/18LNG2014.pdf, accessed on 11.01.2017).

Language Change without Innovation

Ferdinand von Mengden
(Freie Universität Berlin)

In this paper, I would like to argue for an emergent view on language and language change as sketched by Hopper 1987. In contrast to structuralist tenets, which see language as a pre-established system that exists prior to usage ('langue', 'competence'), Emergent Grammar implies that the linguistic system "is always deferred, always in a process but never arriving, and therefore emergent" (Hopper 1987: 141).

While recent approaches to language change have taken the variability and the dynamic character of language into consideration, they have remained structuralist in spirit in that they still see language change as a transition between default stages ('while A becomes B, there is a transitory period in which A and B coexist'). Concepts like 'bridging contexts', 'switch contexts' (Heine 2002; Diewald 2002) and the idea of invited inferences (Traugott/Dasher 2002) suggest that, when a linguistic form changes its function or meaning, this requires contexts in which both, old and new function form part of the interpretation of an utterance. For example, English *since*, usually encodes causality on the basis of a temporal relation on the propositional level. This view has been a great advantage over earlier accounts on language change, in which change is simply seen as a difference between an earlier and a later "stage" in a language's history without making any statement on how form or meaning of expressions change.

This view, however, does not account for the fact (among other things) that those attestations of *since* which are unambiguously either exclusively temporal or exclusively causal, are extremely rare. In my talk, I would therefore like to go a step further. I will argue that the linguistic sign is inherently negotiable, underspecified and subject to interpretation. Rather than striving for logical clarity, interlocutors generally handle ambiguities through clues provided by the respective context. Language change, then, does not require innovation but 'recontextualization' – that is, the use of an existing sign / construction in a different context (rather than the use of a new or altered sign). I will discuss well-documented cases of language change and demonstrate that canonical types of changes (e.g. the grammaticalization / reanalysis in *I'm going to Zurich > I'm gonna like Zurich*) do not require any innovative behaviour on part of a speaker, but reflect the use of one and the same construction being

constantly recontextualized. A beneficial theoretical side effect of this claim is that the notion of 'recontextualization' is well-compatible with other systems that have been described as 'emergent' in various fields outside linguistics.

Because, as Emergent Grammar implies, language does not exist outside usage, and since context is part of usage, context is essential for (rather than external to) the linguistic sign. Rather than speaking of an impact of context on language change, Emergent Grammar suggests a symbiotic relationship between the sign and the context of usage. Context, in other words, is a necessary ingredient of language which allows for communication with inherently vague, variable and ambiguous signs.

References

Diewald, Gabriele. 2002. A model for relevant types of contexts in grammaticalization. In *New Reflections on Grammaticalization*. Edited by Ilse Wischer & Gabriele Diewald. Typological Studies in Language. 49. Amsterdam: Benjamins. 103-20.

Heine, Bernd. 2002. On the role of context in grammaticalization. In *New Reflections on Grammaticalization*. Edited by Ilse Wischer & Gabriele Diewald. Typological Studies in Language 49. Amsterdam; Philadelphia, Pa.: Benjamins. 83-101.

Hopper, Paul J. 1987. Emergent Grammar. In *Berkeley Linguistic Society. Proceedings of the Thirteenth Annual Meeting, February 14-16, 1987: General Session and Parasession on Grammar and Cognition*. Edited by Jon Aske, Natasha Beery, Laura Michaelis, Hana Filip. 13. Berkeley: Berkeley Linguistic Society. 139-57.

Traugott, Elizabeth C. & Robert B. Dasher. 2002. *Regularity in Semantic Change*. Cambridge Studies in Linguistics 96. Cambridge: CUP.

Exceptions to V2 in Estonian and Kiezdeutsch

George Walkden & Virve-Anneli Vihman
(University of Konstanz & University of Tartu)

V2 is a signature property of the Germanic languages, but outside Indo-European is much more sparsely attested. In this paper we investigate deviations from strict V2 in the Finno-Ugric language Estonian, and compare them to those found in Germanic, particularly in contemporary urban vernaculars. Estonian differs from Germanic in various ways, including a rich case-marking system, frequent null arguments and various constructions with "quirky" case-marking, but it is known to exhibit a tendency toward V2 order in affirmative declarative main clauses, as in ex. (1) (Vilkuna 1998; Ehala 2006; Lindström 2005).

(1) Kiiresti   lahkusid   õpilased   koolimajast.
     quickly   leave-pst-3pl students-nom   schoolhouse-ela
     'The students left the schoolhouse quickly.'   (Erelt et al. 1997: 432)

Non-subject-initial V2 is reported to be found more robustly in spoken than written Estonian (Lindström 2005), yet violations of V2 are also more frequent overall in spoken than written Estonian

(in our data, 39% vs 29%, cf Vilkuna 1998: 180). In these clauses, the verb appears most often in third position, as in (2); this paper focuses on V3 clauses of this type.

(2)   eile   ma   nägin   tõelist   kummitust
        yesterday   I-nom   see-pst-1sg true-par.sg   ghost-par.sg
        'I saw a real ghost yesterday.'   (Balanced corpus of Estonian; fiction)

At first sight, these examples might suggest that V2 is simply absent or non-categorical in Estonian and that the parallels with Germanic cannot be upheld. However, Germanic urban vernaculars such as Kiezdeutsch also exhibit this type of V2 violation, as in (3).

(3)   morgen   ich   geh   arbeitsamt
        tomorrow   I-nom   go   job.centre
        'Tomorrow I will go to the job centre'   (Kiezdeutsch; Wiese 2009: 787)

Detailed empirical work has established that the occurrence of V2 and V3 in Kiezdeutsch is not random but conditioned by syntactic and information-structural factors: V3 orders are found only in declarative main clauses, and the immediately preverbal constituent is usually a deaccented personal pronoun subject (Wiese 2009; Freywald et al. 2015), leading to the characterization of this position as reserved for familiar topics. In this paper we investigate the hypothesis that the same functional motivation and syntactic analysis can account for V2 violations in Estonian and Kiezdeutsch (see Walkden 2016). Notably, (2) contrasts markedly with (4), with a strong (emphatic) pronominal subject; clauses like (4) were nearly absent in the data analysed thus far.

(4)   ?eile   mina   nägin   tõelist   kummitust
        yesterday   I-nom-strong see-pst-1sg true-par.sg   ghost-par.sg
        'I saw a real ghost yesterday.'

Estonian data is drawn from the University of Tartu's Spoken Language Corpus and Balanced Corpus of Written Estonian (http://cl.ut.ee/korpused). The V3 pattern in (2) is frequent only in the spoken data, as illustrated in Figure (1).

We posit that V2 violations in Estonian are not of a type that is alien to Germanic, but rather provide additional evidence for a "relaxed V2" syntactic subtype (cf. Cognola 2015, Wolfe 2016), the core of which is also attested in Germanic and which is sensitive to information-structural considerations.

Figure 1: Verb position in written (N=750, on the left) and spoken Estonian (N=200, on the right)
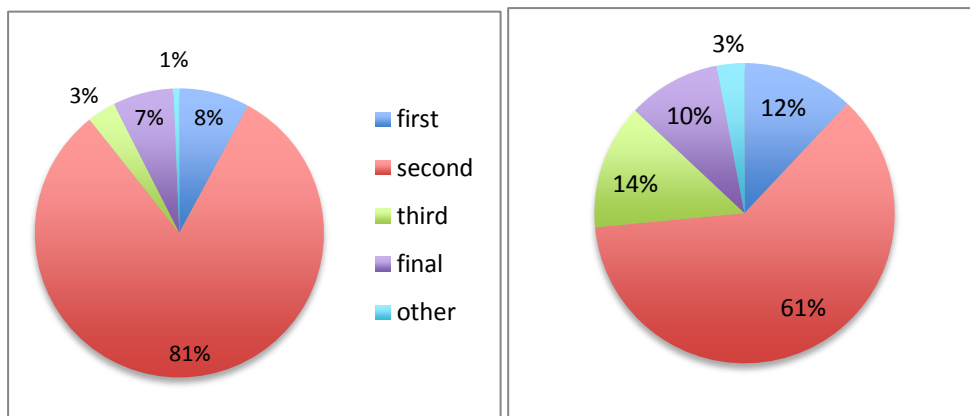
References

Cognola, Federica. 2015. How to define relaxed V2 languages and how to distinguish them from non-V2 languages: a reply to Brandtler. *Nordic Journal of Linguistics* 38, 93–100.

Ehala, Martin. 2006. The word order of Estonian: implications to universal language. *Journal of Universal Language* 7: 49–89.

Erelt, Mati, Tiiu Erelt & Kristiina Ross. 1997. *Eesti Keele Käsiraamat [Handbook of Estonian]*. Tallinn: Eesti Keele Sihtasutus. www.eki.ee/books/ekk09/.

Freywald, Ulrike, Leonie Cornips, Natalia Ganuza, Ingvild Nistov, and Toril Opsahl. 2015. Beyond verb second – a matter of novel information-structural effects? Evidence from German, Swedish, Norwegian and Dutch. In *Language, youth and identity in the 21st century: linguistic practices across urban spaces*, ed. Jacomine Nortier and Bente A. Svendsen, 73–92. Cambridge: Cambridge University Press.

Lindström, Liina. 2005. *Finiitverbi asend lauses. Sõnajärg ja seda mõjutavand tegurid suulises eesti keeles [The position of the finite verb in the sentence. Word order and factors affecting it in spoken Estonian]*. PhD dissertation, University of Tartu.

Vilkuna, Maria. 1998. Word order in European Uralic. In *Constituent order in the languages of Europe*, ed. Anna Siewierska, 173-233. Berlin: de Gruyter.

Walkden, George. 2016. Language contact and V3 in Germanic varieties new and old. Ms., University of Manchester.

Wiese, Heike. 2009. Grammatical innovation in multiethnic urban Europe: new linguistic practices among adolescents. *Lingua* 119: 782–806.

Wolfe, Sam. 2016. On the left periphery of V2 languages. Ms., University of Cambridge.

The diachrony of ellipsis in affirmative responses: evidence for an affirmative cycle

Phillip Wallage

Holmberg (2015) proposes that English affirmative responses have the ellipted structure in (1B), rather than an analysis as a sentence fragment, as in (2B).

(1)   A: Is John here?

        B: $_{CP}$[Yes $_{TP}$[John is here]]

(2)   B: $_{AdvP}$[Yes]

Here, I propose that both (1B) and (2B) are instantiated in earlier English. Competition between them underpins changes in the distribution of YES. Changes in the availability of ellipsis (1B) result from processes of morphosyntactic strengthening and weakening affecting affirmative particles.

Wallage and van der Wurff (2013) argue that YES originates in univerbation of a full clause GEA IS SWA first used in affirmative response to negative questions. Data from a range of historical corpora show bare YES subsequently generalises to neutral and negative questions before becoming restricted to neutral questions, as in (4).

(4)	**Neutral question**	**Negative question**
a. 6th-8th centuries	GEA$_{[uAff]}$ [$_{TP}$ … $_{[iAff]}$]	GEA $_{[uAff]}$ [$_{TP}$ pro IS SWA$_{[iAff]}$]
b. 9th-14th c.	GEA$_{[uAff]}$ [$_{TP}$ … $_{[iAff]}$]	GYSE$_{AdvP [iAff]}$
c. 15th-16th c.	YES$_{AdvP [iAff]}$	YES$_{AdvP [iAff]}$
d. 17th c.-present	YES$_{[uAff]}$ [$_{TP}$ … $_{[iAff]}$]	YES$_{[uAff]}$ + TP $_{[iAff]}$ (ie. *Yes, I did*)

(4) describes a cycle, similar to the Jespersen Cycle in Wallage (2017), in which an affirmative clausal response undergoes univerbation (4a>4b), grammaticalisation (4b>4c), and weakening/reinforcement (4c>4d).

Competition between affirmative particles with different morphosyntactic feature specifications derives the availability of ellipsis in (4). Ellipsis only occurs when the polarity of response and preceding question match. This provides a diagnostic for ellipsis – indicating ellipsis at stages (4a,b,d) but not (4c). In (4a-4b) GEA has an uninterpretable affirmative feature [*u*Aff], as does YES at stage (4d). [*u*Aff] affirmative particles are part of a clause – [*u*Aff] agrees with [*i*Aff] on the clause's polarity head. Thus the polarity head containing the [*i*Aff] feature is only ellipted under identity with the question's polarity head. YES has an interpretable affirmative feature [*i*Aff] at stage (4c), therefore it functions as an affirmative response, irrespective of the question's polarity. It does not agree with any other element, and stands independently as an LF-interpretable sentence fragment. The spread of YES$_{[iAff]}$ eliminates ellipsis from affirmative responses, until morphosyntactic weakening of the newly univerbated fragment (adverbial) YES$_{[iAff]}$>YES$_{[uAff]}$ causes it to be reanalysed as an overt C-head followed by an ellipted TP.

References

Holmberg, Anders (2015) *The Syntax of YES and NO*. Oxford: Oxford University Press.

Wallage, Phillip W. and Wim van der Wurff (2013) 'Saying YES in Anglo-Saxon England'. *Anglo-Saxon England* 42: 183—215.

Wallage, Phillip W. (2017) *A History of English Negation: grammatical and functional change*. Cambridge: Cambridge University Press.

Analogies between the diachrony of *wh*-questions and of negation in French

Richard Waltereit

According to Hansen (2009), Old French bipartite negation (*ne...pas*) was used to negate a proposition already activated in previous discourse (discourse-old), and contrasted with simple negation (*ne*) for non-activated propositions. In Modern French, bipartite negation is used whether the negated proposition is discourse-old or not. Hansen furthermore hypothesizes that in the generalization of bipartite negation, "janus-faced" contexts played a crucial role. In "janus-faced" contexts, there is ambiguity with respect to whether the contextually activated proposition precedes or follows the negation.

In my contribution, I want to show that the history of French *est-ce que* interrogatives shows important analogies to the process described above. Diachronically, *est-ce que*-marking in wh-questions preceded the use of this formative in yes/no-questions (Foulet 1921). My data (from *Base de français médiéval* and *Frantext* corpora) show that *est-ce que* marking was used first for *what*-questions before being extended to other *wh*-questions.

Firstly, early occurrences of *what*-interrogatives with *est-ce que* are discourse-old in that the pronoun *ce* 'that' refers deictically or anaphorically to previous discourse:

*Et li vaslez le tenoit pris au pan de l'hauberc, si le tire : « Or me dites, fet il, biau sire, **qu'est ce que vos avez vestu ?***
'And the servant held him by the side of the neck-cover, and draws it to him: "Now tell me, sir, **what is this that you are wearing**?" (Chrétien de Troyes, *Conte du Graal*, end of C12)

Even today, *est-ce que* questions have a number of discourse-pragmatic properties (Behnstedt 1973, Hansen 2001) that I will argue qualify as discourse-old, and indeed they continue to be pragmatically strong alternatives to other forms of interrogative marking. Hence, while there is a competition between discourse-old and non-discourse-old interrogative marking strategies just as with negation, the discourse-old variant has not, unlike with negation, dislodged its non-discourse-old alternative.

Secondly, the reversal of anaphoric direction inherent in the notion of "janus-headed" contexts is relevant also for the generalization of *est-ce que* questions. Whereas in the above example, the pronoun *ce* is backward-looking (anaphoric), there is some ambiguity with respect to its direction in early *est-ce que* interrogatives that are not *what*-questions:

*Li rois dist qui voleit assegier Thabarie. Et Balyan li dist : « **Par cui consel est ce que vos volés faire ce** ?***
'The king said that he wanted to besiege Tiberias. Balyan told him: "**On whose advice is it that you want to do that**?"' (*Continuation de Guillaume de Tyr*, ca. 1200)

Here, it is not entirely clear whether *ce* in *est-ce que* refers backwards to what the king wants to do or forwards to the upcoming clause (*que vos volés faire ce*). In contemporary French, a literal reading of *ce* in conventionalized *est-ce que* can only be interpreted in the latter way.

More broadly, my study suggests important shared characteristics of the history of frequently occurring clause-level communicative functions such as interrogation and negation, and adds thus to other known similarities between these two functions.

References

Ball, R. 2000. *Colloquial French Grammar*. London.

Behnstedt, P. 1973. *Viens-tu? Est-ce que tu viens? Tu viens? Formen und Strukturen des direkten Fragesatzes im Französischen*. Tübingen.

Coveney, Aidan. 1996. *Variability in Spoken French: a sociolinguistic study of Interrogation and negation*. PhD thesis U Newcastle-upon-Tyne.

Foulet, Lucien. 1921. "Comment ont évolué les formes de l'interrogation". *Romania* 47. 243-348.

Hansen, M.-B. M. 2001. "Syntax in interaction. Form and function of yes/no interrogatives in Spoken Standard French", *SiL* 25, 463-520.

- 2009. "The grammaticalization of negative reinforcers in Old and Middle French: a discourse-functional approach." *Current trends in diachronic semantics and pragmatics*, ed. By M.-B. M. Hansen, J. Visconti.

-2014. Cyclicity in semantic/pragmatic change: Old French 'ja' between Latin IAM and Modern French 'déjà'. Ch. Ghezzi, P. Molinelli, eds. *Pragmatic markers from Latin to Romance*. Oxford . 139-165.

Myers, L.L. 2007. *WH-Interrogatives in Spoken French: a Corpus-Based Analysis of their Form and Function.* PhD thesis U Texas Austin.

Schwenter, S. 2002. Pragmatic variation between negatives: Evidence from Romance. *UPenn WPiL* 8, 249-2

Seelbach, Dieter. 1983. "Fokussierung mit der *est-ce que*-Frage". *Grammatik, Konversation, Interaktion. Beiträge zum Romanistentag 1983,* ed. by E. Gülich & Th. Kotschi, 277-312. Tübingen.

Söll, Ludwig. 1971. "Der neufranzösische direkte Fragesatz in einem Corpus der Kindersprache". *Sprache und Geschichte. Festschrift für Harri Meier zum 65. Geburtstag,* ed. by E. Coseriu & W.-D. Stempel, 493-506. München.

Waltereit, R., Detges. U. 2008. Syntactic change from within and from without syntax. *The paradox of grammatical change: Perspectives from Romance*. U. Detges, R. Waltereit (eds). 13-30. Amsterdam.

Zanuttini, R. 1997. *Negation and clausal structure: a comparative study of Romance languages*. Oxford.

Diversity of argument coding and transitivity in western Austronesian languages: typology and geography

Tobias Weber

(University of Kiel & University of Zurich)

Western Austronesian languages (for the present purpose defined as Austronesian without Oceanic) display a large variation in argument coding patterns for transitive constructions, not only across languages, but in many instances also within languages, especially as there exist different voice constructions.

The present paper investigates the following domains:

1. Case-marking: Which arguments are case-marked in a given construction? Are all arguments of a specific semantic role marked or just a subset thereof (e.g. only pronouns)?
2. Agreement: Which arguments are cross-referenced on the predicate in a given construction?
3. Constituent order of predicate, agent-like argument and patient-like argument (of a given construction)
4. Number of voices (focusing on voices that are not changing the semantic valency, thus excluding causatives, applicatives and anticausatives).

The cross-linguistic distribution of these patterns is not random. In fact, there are clear geographical (and genealogical) tendencies, which can often be explained in terms of language contact and further sociolinguistic factors. Some of the more general observations are the following:

1. Philippines and Taiwan (and adjacent areas in Borneo and Sulawesi): case-marking prominent, agreement also present in some languages; predicate-initial word order; three or more voices;
2. Mainland Southeast Asia: no case marking, no agreement, predicate-medial word order, no voice alternations;
3. Western Island Southeast Asia: case-marking and agreement not prominent; predicate-medial (but also some predicate-initial) word order; two voices;
4. (South-)Eastern Island Southeast Asia: case-marking marginal, agreement prominent; predicate-medial word order; no voice alternations.

The paper also seeks to assess the role of the following factors for the current distribution of the argument coding patterns:

1. The influence of other languages: many instances of argument coding patterns of western Austronesian languages can be explained as the result of the influence of languages of other families, e.g. the lack of case and agreement in Chamic languages (being the result of contact with Austroasiatic languages), or the prominence of agreement in eastern Indonesia (being the result of contact with local Papuan languages).
2. Factors affecting language complexity, most notably second language acquisition: languages spoken by many L2 speakers are expected to be simplified (cf. e.g. Kusters 2003, Trudgill 2012). With regard to argument coding, simplification is manifested in the loss of case and agreement and in the Austronesian context often associated with a shift from predicate-initial to predicate-medial word order and a loss of voice distinctions. Examples for this process include varieties of Malay or the languages of Flores (cf. McWhorter 2011).

Data are drawn from a sample representing western Austronesian languages of all low-level genealogical groups.

References

Kusters, Wouter. 2003. *Linguistic complexity: The influence of social change on verbal inflection*. PhD Dissertation, University of Leiden.
McWhorter, John H. 2011. *Linguistic simplicity and complexity: Why do languages undress?* Berlin: de Gruyter Mouton.
Trudgill, Peter. 2012. *Sociolinguistic typology: Social determinants of linguistic complexity*. Oxford: Oxford University Press.

How to do things with quotes in Russian parliamentary discourse

Daniel Weiss
(University of Zurich)

The last years witnessed an increasing interest in the semantics, pragmatics and discourse properties of intertextual references. This does not come as a surprise: as one of the most fundamental indirect communicative strategies, intertextual references are ubiquitous in oral and written genres. They serve manifold purposes, such as argumentation from analogy or contrast, delegitimisation of others, evaluation of the source itself, self-staging, entertaining the audience, or building social identity.

The present paper seeks to examine a sample of about 500 quotations used by deputies of the Russian State Duma taken from 35 debates covering the period from 2008 to 2014. This is not a random choice: due to the logocentric character of Russian culture and especially the Russian educational system, intertextuality plays a much more prominent role than in other political discourses. The quotations refer to virtually any kind of sources, to mention but: pop songs, films, TV serials, slogans, ads, jokes, literary fiction, proverbs, fairy tales, dictionaries, philosophical, scientific, political, religious and legal texts. The paper focuses on the different types of contextual embedding and their impact on the interpretation, which will be analysed within the framework of classical pragmatics and Relevance Theory.

(i) Quotes may be explicitly introduced. Typical markers announce a parallel between the quotation and the ongoing debate. However, it will be shown that argumentation by analogy may also be realised without such an introduction, with other contextual cues such as metaphors and comparisons enhancing the intended reading.

(ii) The quotation may be accompanied by the full or partial identification of the source or else completely lack such an indication. The choice between these options partly depends on the speaker's assumptions about the background knowledge of the audience, but an incomplete or missing identification may also be due to the speaker's own insufficient knowledge. It will be illustrated how a full vs. partial identification impacts the understanding and what challenge this poses to Relevance Theory.

(iii) Besides the identification of the origin, mentioning the source can also serve additional purposes more directly related to the issue at hand. A cue to such an intended meaning is sometimes provided by a seeming violation of the Quantity Maxim (circuitous reference to the author of the quotation).

(iv) The quotation may be anticipated or simply fictitious. The borderline dividing the latter type from authentic sources is not always clear-cut. This raises the general question in what sense spontaneous direct quotations can be said to be non-serious actions (Clark & Gerrig 1990).

(v) A quotation is often part of an evaluative strategy in a twofold sense: the speaker either expresses his (dis)approval of the source itself, or he indirectly praises or criticizes other politicians by means of the quotation. These two sub-strategies may also intermingle, yielding four different cases according to the relation of analogy or contrast holding between the source and the targeted object, and interact with verbal humour or irony.

Finally, an overarching question will be addressed: how is the lack of explicitness compensated by other effects of the intertextual referencing strategy, including delegitimisation of other, self-staging or entertaining the audience, and how far can Relevance theory prove helpful in formulating the answer?

References

Arendholz, Jenny, Wolfram Bublitz & Monika Kirner-Ludwig (eds.). 2015. *The Pragmatics of Quoting Now and Then*. Berlin: de Gruyter Mouton.

Bayley, Paul (ed.). 2004. *Cross-Cultural Perspectives on Parliamentary Discourse*. Amsterdam/Philadelphia: John Benjamins.

Bell, David M. 1997. Innuendo. *Journal of Pragmatics* 27: 35-59

Brendel, Elke, Jörg Meibauer & Markus Steinbach (eds.). 2011. *Understanding Quotation.* Berlin: Mouton de Gruyter.

Buchstaller, Isabelle & Ingrid van Alphen (eds.). 2012. *Quotatives: Cross-linguistic and cross-disciplinary perspectives*. Amsterdam-Philadelphia: John Benjamins.

Cappelen, Herman, and Ernest Lepore. 2007. *Language turned on itself: the semantics and pragmatics of metalinguistic discourse*. Oxford: Oxford Univ. Press.

Clark, Herbert H., & Richard J. Gerrig. 1990. Quotations as demonstrations. *Language*, 66 (4), pp. 764-805.

Čmejrková, Světla, and Jana Hoffmannová. 2012. Intertextuality as a means of positioning in a talk-show. In Lorda C.U., and Zabalbeascoa P. (eds.), *Spaces of polyphony*, 161–172. Amsterdam/Philadelphia: John Benjamins.

Constantinescu, Mihaela. 2012. The Use of Quotations in the Romanian Parliamentary Discourse. In L. Ionescu-Ruxăndoiu, M. Roibu, and M. V. Constantinescu (eds.), *Parliamentary Discourses across Cultures: Interdisciplinary Approaches*, 263–282. Cambridge: Cambridge Scholars Publishing.

Dušenko, Konstantin Vasil'evič. 1997. *Slovar' sovremennyx citat. 4300 xodjačix citat XX veka, ix istočniki, avtory, datirovka*. Moskva: Agraf.

Elistratov, Vladimir Stanislavovič. 1999. *Slovar' krylatyx slov (russkij kinematograf).* Moskva:
Russkie slovari.

Fetzer, Anita & Elisabeth Reber. 2015. Quoting in Political Discourse: Professional Talk Meets Ordinary Postings. In Jenny Arendholz, Wolfram Bublitz & Monika Kirner-Ludwig (eds.). *The Pragmatics of Quoting Now and Then.* Berlin: de Gruyter Mouton, 97–124.

Fokina, Ol'ga Vladimirovna. 2008 *Istočniki intertekstual'nyx vključenij v jazyke sovremennyx gazet* ('Sources of intertextual references in the language of contemporary newspapers'). Moskva.

Gruber, Helmut. 2012. Establishing intertextual references in Austrian parliamentary debates. A pilot study. In Anita Fetzer, Elda Weizman & Elisabeth Reber (eds.), *Follow-ups across Discourse Domains: A Cross-cultural Exploration of their Form and Function*. Proceedings of the EFC strategic workshop, Würzburg (Germany), 31 May–2 June 2012, 86–107. Universität Würzburg: OPUS. http://opus.bibliothek.uni-wuerzburg.de/ frontdoor/index/index/docId/6116.

Ilie, Cornelia (ed.). 2010. *European parliaments under scrutiny*. Amsterdam/ Philadelphia: John Benjamins.

Kotthoff, Helga. 2002. Irony, quotation, and other forms of staged intertextuality. Double or contrastive perspectivation in conversation. In Karl Friedrich Graumann & Werner Kallmeyer (eds.), *Perspective and Perspectivation in Discourse*, 201–229. Amsterdam: Benjamins.

Levinson, Stephen C. 2000*: The Theory of Generalised Conversational Implicature*. Cambridge, MA: MIT Press Hay.

Sivenkova, Maria. 2012. Metacommunication and Intertextuality in British and Russian parliamentary answers. In Lorda Clara-Ubaldina, Zabalbeascoa Patrick (eds.), Spaces of polyphony, 129–160. Amsterdam/Philadelphia: John Benjamins.

Sperber, Dan, Deirdre Wilson. 1981. *Irony and the Use-Mention Distinction*. In Peter Cole (ed.), *Radical Pragmatics*, 295–318. New York: Academic Press.

Sperber, Dan, Wilson Deirdre. [2]1995. *Relevance. Communication and Cognition*. Oxford: Blackwell.

Thielemann, Nadine. 2010. Arguing by *anekdot* – jocular accounts in Russian media interaction. Zeitschrift für slavische Philologie 67. 185–215.

Weiss, Daniel. 2012. Deputaty ljubjat citaty. In *Rusistika segodnja, vypusk 5: Problemy rečevogo obščenija*, Nina N.Rozanova (ed), 64-75, Moskva: Flinta-Nauka.

Weiss, Daniel. 2016. Quotations in the Russian State Duma: types and functions. In: D.Weiss (guest editor), *Contemporary Eastern European political discourse, ZfSl 1/2016, Special issue,* 2016, 184-214.

Wilson, Deirdre, Sperber, Dan, (Eds.). *Meaning and Relevance*. Cambridge: Cambridge University Press

Nominalizing verbal infinitives in Middle High German and beyond

Martina Werner

(Austrian Centre for Digital Humanities (ÖAW) and University of Vienna)

Nominalized infinitives (NIs, such as *(das) Gehen* 'walking', *(das) Abschneiden* 'cutting off') are one of the most frequent nominalization patterns in present day German (PDG). Apart from some formal restrictions (cf. Blume 2004 for more details), the NIs are involved in different constructions in PDG, especially in light-verb constructions (such as *ins Rollen kommen* 'to get going'), in the progressive (such as *Er ist am Arbeiten*), and potentially (cf. e.g. Engelberg 2004) in absentive constructions (such as *Er ist Arbeiten/arbeiten* 'he is working but not here'). Although synchronic studies on MHG already exist (such as Monsterberg-Münckenau 1885, Koning 1933, Kloocke 1974) the question of when NIs became productive in the history of German is an unanswered issue especially with respect to the exact emergence of the NI, i.e. its morphosyntactic development and its general, grammatical motivation.

The rise of NIs began in MHG, probably in the $13^{th}/14^{th}$ century which has been attributed to influence of French (Kloocke 1974). In contrast, Wilmanns (1906: 123) argues from a language-internal point of view by pointing to the decrease of the infinitive-particle *zu* in MHG. None of the approaches is confirmed by empirical data. To answer this question, the talk deals with first instances of infinitives in MHG which are ambiguous due to being located at the interface of syntax and morphology (1-2 from Koning 1933: 91):

(1) durch$_P$ miden$_{INF}$ [en wip] $_{NP\text{-}ACC.}$ lit. ‚by avoiding a woman'
(2) durch$_P$ behalten$_{INF}$ [den lip]$_{NP\text{-}ACC.}$ lit. ‚by keeping the life'

The ambiguity of these infinitival constructions is provided by the fact that they function as the complement of a PP which requires the status of an NP whereas the accusative case of the subordinated NP indicates that the infinitives are a VP. The examples suggest the instance of a language change towards the development of a new nominalization pattern since in late MHG and beyond, a general case drift of the subordinated NP from accusative (>VP such as PDG *den Raum reinigen* 'clean(ing) the room') to genitive can be observed as in PDG *(das) Reinigen des Raumes*$_{GEN}$ '(the) cleaning of the room'. With respect to case assignment, the case drift from accusative to genitive can clearly be interpreted as an enhancement of nouniness since deverbal nouns typically avoid accusative objects.

Empirically, the talk provides new data (from historical corpora such as *Referenzkorpus Mittelhochdeutsch* on MHG, *Austrian Baroque Corpus* on early New High German, among others) which serve as the basis for generalizations being contrasted with theoretical results from morphological theory (especially with respect to nominalization patterns in MHG and beyond) and syntax in the history of German. The data suggest the development of a new nominalization pattern in MHG which seems to be in parallel to the decrease of related nominalization patterns (especially *-ung*-nouns, cf. Demske 2000) and the continuous development of a morpho-syntactic word-lengthening in

German as already attested for related word-formation processes in German (see e.g. Scherer 2005 on synthetic compounding).

References

Blume, K. (2004): *Nominalisierte Infinitive: Eine empirisch basierte Studie zum Deutschen.* (*Linguistische Arbeiten* 487). Tübingen: Niemeyer.

Demske, U. (2000): „Zur Geschichte der -ung-Nominalisierungen im Deutschen. Ein Wandel morphologischer Produktivität". *PBB* 122: 365–411.

Engelberg, S. (2004): The Structural Ambiguity of PPs Containing Nominalized Infinitives. In: Moskovsky, C. (ed.): *Proceedings of the 2003 Conference of the Australian Linguistics Society.* Permanent URL: http://www.als.asn.au/.

Kloocke, H. (1974): *Der Gebrauch des substantivierten Infinitivs im Mittelhochdeutschen*. Göppingen: Kümmerle.

Koning, W. (1933): Substantivierte infinite Verbformen mit verbaler Rektion. *Die neueren Sprachen 41*, 90–98.

Monsterberg-Münckenau, S. von (1885): *Der Infinitiv in den Epen Hartmanns von Aue*. Nachdruck der Ausgabe Breslau, 1977. Hildesheim: Olms.

Pottelberge, J. v. (2004): *Der am-Progressiv. Struktur und parallele Entwicklung in den kontinentalwestgermanischen Sprachen.* Tübingen: Narr.

Scherer, C. (2005): Wortbildungswandel und Produktivität. Eine empirische Studie zur nominalen -er-Derivation im Deutschen. Tübingen: Niemeyer.

Wilmanns, W. (1906): *Deutsche Grammatik. Gotisch, Alt-, Mittel- und Neuhochdeutsch.* vol. 3 (Flexion) Strassburg: Trübner.

Paul Widmer

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Using social-media data to investigate morphosyntactic variation and change

David Willis
(University of Cambridge)

While data from social-media platforms such as Twitter and Facebook have been used by linguists to investigate lexical variation and change (Gonçalves & Sánchez 2014, Russ 2012 etc.), their use for morphosyntax has been relatively limited to date. This paper aims to extend their use to this domain, to examine ways of dealing with methodological problems, and to test whether it is possible to replicate results produced by traditional methods of investigating geospatial variation in morphosyntax (dialect surveys and spoken corpora) using social-media data.

I consider two case studies. The first concerns the dialect distribution of the Welsh strong second-person singular pronoun *chdi*. This occurs in northwestern Welsh dialects in various syntactic contexts (after an uninflecting preposition, in fronted focus position, as subject of an auxiliary etc.), with the exact set of possible syntactic environments varying from dialect to dialect according to an implicational hierarchy of the following kind:

(1)   *efo chdi* 'with you' > independent use (focus fronting etc.) > *i chdi* 'to, for you' > object of inflected preposition > subject of auxiliary > *gynno chdi* 'with you'

Studies using traditional methods (e.g. Willis 2017) show a wave-like distribution, with a core dialect in which *chdi* is permitted in all these environments, and successively more distant dialects allowing it in fewer and fewer of them, consistent with a historical pattern of contagious diffusion (cf. Britain 2013) from this central core.

Using a corpus of Twitter data collected over a total of 50 days during 2016, I extracted all tweets containing second-person singular pronouns and tagged them for syntactic context and user's geographic origin. The overall hierarchy of syntactic contexts that emerge is very similar to that in (1), demonstrating the general viability of this approach. Furthermore, when these data are plotted geographically, the dialect distribution of this variable can be established with remarkable accuracy, provided that data are manually geolocated using users' self-provided location and user-description data. Automatically geotagged data were insufficient to establish the relevant distribution.

Secondly, I will compare another morphosyntactic variable, namely, deletion of auxiliaries before subject pronouns in spoken Welsh. While the focus of interest here is not primarily on dialect variation, this variable allows us to test whether social-media data provide a good proxy for spoken data. In comparison with a spoken corpus (the Siarad Corpus, Deuchar et al. 2014), Twitter data emerge as a good, but not perfect, guide to spoken usage: while auxiliary deletion in the second-person singular occurs with a frequency over 90% in spoken corpora, its frequency in Twitter data is around 70%.

Finally, I discuss possible ways to overcome possible data-reliability concerns, such as whether the data accurately reflect speakers' geographic origins and whether the data accurately reflect or approximate to spoken patterns of usage e.g. by excluding certain categories of data (institutional accounts) or by adopting a more selective approach to data collection (e.g. limiting collection to a 'panel' of easily localizable users).

References

Britain, D. 2013. Space, diffusion and mobility. In J. K. Chambers & N. Schilling (eds.), *Handbook of language variation and change*, 471–500. Chichester: Wiley–Blackwell.

Deuchar, M. et al. 2014. Building bilingual corpora. In E. M. Thomas & I. Mennen (eds.), *Advances in the study of bilingualism*, 93–111. Bristol: Multilingual Matters.

Gonçalves, B. & D. Sánchez. 2014. Crowdsourcing dialect characterization through Twitter. *PLoS ONE* 9(11). e112074. doi:10.1371/journal.pone.0112074.

Russ, B. 2012. Examining large-scale regional variation through online geotagged corpora. Paper presented at the Annual Meeting of the American Dialect Society, Portland.

Willis, D. 2017. Investigating geospatial models of the diffusion of morphosyntactic innovations: The Welsh strong second-person singular pronoun *chdi*. *Journal of Linguistic Geography* 4.

The perfect non-nominative subject: the Accusative Numeral Subject in Polish

Jacek Witkoś

(Adam Mickiewicz University, Poznań)

The question: In Polish, ACC numeral subjects (ANS) behave exactly like NOM subjects but for case (ACC) and default agreement on $T_{3SG.N.}$, which challenges case theory:

(1)   Te pięć tancerek widziało maskaradę.
    these-$_{ACC}$ five-$_{ACC}$ dancers-$_{GEN.PL}$ saw-$_{3SG.N}$ masquerade-$_{F.ACC.SG}$
    'These five (female) dancers saw the masquerade.'

(2)   a. $T_{[u\phi]} \rightarrow [_{vP} DP_{[i\phi, case]} \dots]$ (NOM)
    b. $T_o/v_{[u\phi]} \rightarrow [_{VP} V DP_{[i\phi, case]}]$ (ACC)

The ANS and NOM share many properties, e.g.: (**a**) they require rigorous binding of reflexive possessives, (**b**) they can be coordinated, (**c**) they participate in the NOM(ACC)/GEN alternation in existential constructions, (**d**) they undergo subject raising, (**e**) they license pro-drop in the subject position of the finite clause, (**f**) they control into adjuncts and (**g**) they license *pro* for the resumptive pronoun in relative clauses introduced by the uninflected complementizer *co* 'WHAT'.

Analysis: I assume that T bears two separate probes: one for ϕ-features and the other for [structural] case. The latter is unvalued, though interpretable (cf. Pesetsky and Torrego 2007). The case feature on NP is internally structured:

(3)   nominative case: [structural > nominative]

(4)   accusative case: [structural]

Structural case means ACC by default, while NOM is its subset. Both the ϕ-features and the case feature are copied from the nominal goal onto the T probe (Benmamoun et al. 2009; Marusić, et. al. 2015):

(5) $T_{\{[\phi:][case: structural]\}} \dots \leftrightarrow \dots [_{vP} \dots [_{KP} NP_{\{[\phi\text{-features}][case: \dots structural>nom]\}}]$

(6) $T_{\{[\phi: \phi\text{-features}][case: structural>nom]\}} \dots \leftrightarrow \dots [_{vP} \dots [_{KP} NP_{\{[\phi\text{-features}][case: \dots structural>nom]\}}]$

Internally to head T, both of its probes are compared for the maximal effect of matching and valuation, in line with Economy:

(7)   Maximize the matching effect, so that $[_T \{[\phi + val] \leftrightarrow [case: structural>nom]\}]$

There is a positive correlation between full exposition of the ϕ-features on T and the value [structural>nom] copied from the goal onto its other case probe. The nominal goal is placed in an articulated Kase$_{Sequnces}$ and NP rises a given position in Kseq overtly:

(8) $[_{InsP} [Inst [_{LocP} [Loc [_{DatP} [Dat [_{GenP} [Gen [_{AccP} [Acc [_{NomP} [Nom [NP]]]]]]]]]]]]]$.

The ANS in Polish bleeds Maximize in (7), for its bottom projection is truncated and lacks NomP, as a residue of a diachronic change, whereby the higher numerals switched from the nominal paradigm to the adjectival one:

(9) $\dots [_{GenP} Gen [_{AccP} Acc [NumP]]]$

The features of the ANS goal are compatible with the ones on the T probe but when they are compared internally to head T, Maximize of (7) is not met, as the case feature is only [case: structural] rather than [case: structural>nom]:

(10) $T_{\{[\phi: -val][case: structural]\}} \dots \leftrightarrow \dots [NumP_{\{[\phi\text{-features}][case: structural]\}}]$

Although the features are compatible (so the derivation converges) the ϕ-features of T come out as default ([-val]). I take the non-distinctness of the structural cases on T_{fin} probe (cf. 5), Maximize in (7) and the defective structure of the case domain of the higher numerals (cf. 9) to lie behind properties (**a-g**) above: structural ACC is second best to NOM and takes over its morpho-syntactic function if the latter is absent from the declension paradigm; ANS is licensed in [spec,T_{fin}].

Selected references

Babby, Leonard. 1987. Case, prequantifiers, and discontinuous agreement in Russian. *Natural Language and Linguistic Theory* 5, 91–138.

Bailyn, John. F. 2004. *The case of Q*. In Olga Arnaudova (ed.), *Proceedings of Formal Approaches to Slavic Linguistics*: *The Ottawa Meeting 2003*,1–36. Ann Arbor, MI: Michigan Slavic Publications.

Bejar, Suzana. 2003. *Phi-syntax: A theory of agreement*. Ph.D. dissertation, University of Toronto.

Benmamoun Elabbas, Archna Bhatia & Maria Polinsky. 2009. Closest conjunct agreement in head final languages. *Linguistic Variation Yearbook* 9, 67–88.

Bošković, Željko. 2006. Case and agreement with genitive of quantification in Russian. In Cedric Boeckx (ed.), *Agreement Systems,* 99–120. Amsterdam: John Benjamins.

Bošković, Željko. 2010. Conjunct-Sensitive Agreement: Serbo-Croatian vs. Russian. In Gerhild Zybatow, Philip Dudchuk, Serge Minor & Ekaterina Pschehotskaya (eds.), *Proceedings of FDSL 7.5*, 31–48. Frankfurt am Main: Peter Lang.

Burzio, Luigi.1986. *Italian Syntax*. *Dordrecht:* Reidel.

Caha, Pavel. 2009. *Nanosyntax of case*. Ph.D. dissertation, University of Tromso.

Caha, Pavel. 2010. The parameters of case marking and Spell-Out driven movement. http://ling.auf.net/lingbuzz/001026 (accessed 15 Feb 2011).

Caha, Pavel. 2013. Czech numerals and no bundling. http://ling.auf.net/lingbuzz/001723 (accessed 10 Feb 2013).

Chomsky, Noam. 2000. *Minimalist inquiries*. In Roger Martin, David Michaels, Juan Uriagereka & Samuel J. Keyser (eds.), *Step by step: Essays on minimalist syntax in honor of Howard Lasnik,* 89–156. Cambridge, MA: The MIT Press.

Chomsky, Noam. 2001. Derivation by phase. In Michael Kenstowicz (ed.), *Ken Hale: A life in language,* 1–52. Cambridge, MA: The MIT Press.

Chomsky, Noam. 2008. On Phases. In Robert Freidin, Carlos Peregrín Otero & Maria L. Zubizarreta (eds.), *Issues in linguistic theory: Essays in honor of Jean-Roger Vergnaud*. 133–166. Cambridge, MA: The MIT Press.

Danon, Gabi. 2011. Agreement and DP-internal feature distribution. *Syntax* 14, 297–317.

Danon, Gabi. 2012. Two structures for numeral-noun constructions. *Lingua* 122 (12).

Dziwirek, Katarzyna. 1994. *Polish subjects*. New York: Garland.

Franks, Steven. 1994. Parametric properties of numeral phrases in Slavic. *Natural Language and Linguistic Theory* 12, 597–674.

Franks, Steven. 1995. *Parameters of Slavic morphosyntax*. New York: Oxford University Press.

Marušič, Franc L., Andrew Nevins & William Badecker. 2015. The grammars of conjunction agreement in Slovenian. *Syntax* 18, 39–77.

Matushansky, Ora. 2005. Going through a phase. In Martha McGinnis & Norvin Richards (eds.), *Perspectives on Phases*, 157–182. Cambridge, MA: The MIT Press.

Miechowicz-Mathiasen, Katarzyna. 2014. Numeralization of numeral nouns in Polish. In LudmilaVeselovská & Markéta Janebová (eds.), *Nominal Structures: All in Complex DPs,* 48–68. Olomouc: Palackỳ University.

Nikolaeva, Ludmila. 2014. The secret life of pronouns. Doctoral dissertation. MIT Cambridge, MA.

Pereltsvaig, A. 2006. Small nominals. *Natural Language and Linguistic Theory* 24: 433-500.Pereltsvaig, 2006.

Pesetsky, David. 2013. *Russian case morphology and the syntactic categories*. Cambridge: The MIT Press.

Pesetsky, David & Esther Torrego. 2001. T-to-C movement: Causes and consequences. In Michael Kenstowicz (ed.), *Ken Hale, a Life in Language*, 355–426. Cambridge, MA: The MIT Press.

Pesetsky, David & Esther Torrego. 2007. The syntax of valuation and interpretability of features. In S. Karimi, V. Samiian, and W. Wilkins (eds.), *Phrasal and clausal architecture: Syntactic derivation and interpretation*, 262-294. Amsterdam: John Benjamins.

Preminger, Omer. 2009. *Failure to Agree is not a failure:φ-Agreement with post-verbal subjects in Hebrew*. Manuscript, *MIT/ Harvard*.

Przepiórkowski, Adam. 1999. *Case Assignment and the complement-adjunct dichotomy: A non-configurational constraint-based approach*. Ph.D. dissertation, Universität Tübingen.

Przepiórkowski, Adam. 2001. Predicative case agreement with Quantifier Phrases in Polish. In Adam Przepiórkowski & Piotr Bański (eds.), *Generative Linguistics in Poland: Syntax and Morphosyntax*, 159–169. Warsaw: Polish Academy of Sciences.

Rutkowski, Paweł. 2007. *Hipoteza frazy przedimkowej jako narzędzie opisu składniowego polskich grup imiennych*. Ph.D. dissertation, Uniwersytet Warszawski.

Starke, Michael. 2009. Nanosyntax: A short primer to a new approach to language, *Nordlyd* 36(1), 1–6.

Willim, Ewa. 2000. On the grammar of Polish nominals. In Roger Martin, David Michaels & Juan Uriagereka (eds.), *Step by Step*, 319–346. Cambridge: The MIT Press.

Willim, Ewa. 2015. Case distribution and ɸ-agreement with Polish Genitive of Quantification in the feature sharing theory of Agree. *Poznań Studies in Contemporary Linguistics* 51(2):315-357.

Turkish evidentials in interrogatives

Emine Yarar

Evidentials indicate the source of information, which may be either direct or indirect (Willett, 1988). Direct evidentials reflect the information acquired by the speaker through senses and indirect evidentials refer to information acquired by the speaker through varied ways, including inference, perception or the reports of others. There occurs a significant difference between evidentials used in declaratives and those used in questions (Aikhenvald, 2004). The former constructions are speaker-oriented, whereas the latter hearer- oriented (Aikhenvald, 2004; Murray, 2010). This process is called evidential prespective shift (Dongsik, 2011; San Roque, Floyd and Norcliffe, 2017). In Turkish indirect evidentials have two markers, namely verbal suffix *–mIş* and copular suffix *-(y)mIş,* (Göksel and Kerslake, 2005; Johanson, 2006). The related examples are given in (1) and (2), respectively:

(1)　　*Ali　　okul-a　　git-miş*
　　　　Ali　　school-DAT　　go-EVI
　　　　"Ali has gone to the school/ Ali evidently went to the school."

(2)　　*Ali　　öğrenci-ymiş*
　　　　Ali　　student-EVI
　　　　"Ali is (reportedly) a student."

　　This study aims at describing these evidential markers in Turkish in terms of their evidentiality value in interrogative constructions. Based on this aim, the study attempts to answer the following research question: Do both evidential markers of Turkish, *-mIş* and *–(y)mIş*, contain perspective shift in questions?

Example (3) is a yes-no question in which verbal suffix –*mIş* is used:

(3) *Ali   okul-a   git-miş   mi?*
Ali   school-DAT   go-EVI   Q
"Did Ali evidently go to the school?"

The question in (3) is hearer-oriented in that the answer could be only given by the hearer. Here the evidential marker *-mIş* is followed by the question marker *-mI* and therefore, it is under the scope of question marker. As a result, it questions the hearer's information, not the speaker's information. Example (4) shows the use of copular suffix *-(y)mIş* in a yes-no question as follows:

(4) *Ali   öğretmen   mi-y-miş?*
Ali   teacher Q-EVI
"Is Ali (reportedly) a teacher?"

In (4) *-(y)mIş* occurs before the question marker –*mI* and therefore, it is outside of the scope of negation marker. At the same time, it is not a yes/no question, but an echo question, which is incompatible with perspective shift. In other words, this question does not involve any perspective shift, but can only be asked in a context where the speaker has had different assumptions about Ali's profession. Therefore, the speaker just repeats what he has just heard and this information is totally new to the speaker (Noh, E-J., 1998).

Based on the data above it can be argued that verbal suffix –*mIş* in yes-no questions produces a perspective shift. However, *-(y)mIş* produces only echo questions, which do not contain perspective shift. Therefore, it is safe to argue that these two evidential markers differ in terms of evidentiality value when used in interrogative constructions. It can also be added that interrogative constructions show us the differential evidential value of evidential markers.

References
Aikhenvald, A. (2004). *Evidentiality.* Oxford: Oxford University Press.
Dongsik, L. (2011). Evidentials in interrrogatives. A case study of Korean. In: Ingo Reich et. al. (eds.). *Proceedings of Sinn und Bedeutung 15*, pp. 419-433.
Göksel, A. and C. Kerslake. (2005). *Turkish. A comprehensive grammar.* London: Routledge.
Johanson, L. (2006). Indirective sentence types. *Turkic languages* 10. pp. 72-87.
Murray, S. E. (2010). Evidentials and questions in Cheyenne. In Suzi Lima (ed.), *Proceedings of SULA 5: Semantics of under-represented languages in the Americas*, pp. 139–155. Amherst, MA: GLSA publications.
Noh, E-J. (1998). Echo questions: metarepresentations and pragmatic enrichment. *Linguistics and philosophy* 21, pp. 603-628.
San Roque, L., Floyd, S. and Norcliffe, E. (2017). Evidentiality and interrogativity. *Lingua* 186-197, pp. 120-143.
Willett, T. (1988). A cross-linguistic survey of the grammaticalization of evidentiality. *Studies in language* 12, pp. 51-97.

Evidentiality, epistemic modality, and speaker attitude in Ladakhi

Bettina Zeisler

(Universät Tübingen)

The crosslinguistic concept of 'evidentiality' discriminates between 'direct' and 'indirect' knowledge, or sense perception vs. hearsay and inferences. Alternatively, one could differenciate between *sources* of information (first-hand vs. second-hand) and different *access channels* (visual vs. non-visual vs. inferences), cf. Oisel (2013:31f.). Both models do not fully account for most Tibetic systems, where the domain of direct/first-hand is split up between *internal*, non-sensory knowledge based on acquaintance and control (a.k.a. 'egophoric') and *external*, sensory knowledge.

Various other factors interplay. In Ladakhi, visibility overrides other perceptive channels 0; distance from the observed situation 0 and, in some dialects (cf. also Jones 2009:43f. for Balti), shared observations 0, trigger the non-sensual marker, while shareable/ general knowledge, surprise, counterfatuals, and imagined play roles receive inferential or hedging markers.

Domkhar (2012)

bila-s	*mane*	*ton-en-(n)uk.*	/	*ton-en-(n)ak.*
cat-erg	*maṇe*	utter-cont-**vis**.exist=(prgr).prs		°-cont-**nvis**.exist=(prgr).prs

'The cat is murmuring *maṇe* [prayers] = is purring (as I **see**: the cat is **in view** / as I **hear**: the cat is **out of view**).'

Shara (2016; adapted)

ŋa	*lēb-zane*	*aʧo-se*	*giṭar*	*ʃrok-**duk.***
I	arrive-when	elder.brother-erg	guitar	play-**vis**=prs

tɛne	*jaŋ*	*lok-te*	*ton-zane,*	
then	again	go.back-lb	go.out-when	

aʧo-se	*giṭar*	*ʃrog-en-**hot.***	
elder.brother-erg	guitar	play-cont-**nsens**=prgr.prs	

'When I arrived, the elder brother was playing guitar (speaker is **within** observed situation). When I left again, he was [still] playing guitar (speaker **has left** observed situation).'

Mulbekh (2016)

bja	*bos-**et.***		– *ci*	*duk?*	– *bja*	*bos-e-**in.***
cock	call-**nsens**=prs		– what	**vis**.exist	– cock	call-lb-**nsens**.be

[Cock crowing –] 'A cock is calling.' – BZ: 'What is there?' – 'A cock has called.' (Speaker and BZ are watching the 'Pearstory'.)

In Ladakhi, the choice of auxiliaries is pragmatically conditioned. A speaker's attitude (or stance, a category distinct from epistemic modality, cf. Friedman 1981:18), namely commitment vs. non-commitment, is the dominant factor, while evidential distinctions in the strict sense are restricted to the domain of non-committment, see Fig. 1.

Similar problems with the concept of 'evidentiality' are observed also in other languages (cf., e.g., San Roque & Loughnane 2012), and the questions are thus:

– Do we need to redefine the concept of 'evidentiality' "as a network of independent epistemic categories that all gravitate towards the notion of 'information source'" (as suggested in the workshop call)?

– Are there not other 'gravitation' centres, e.g. speaker's attitude?

– Should we not better describe systems like the Tibetic ones as multicentric, due to the co-grammaticalisation of two or more independent but cross-cutting categories?

Fig. 1: A network of attitude and social pragmatics
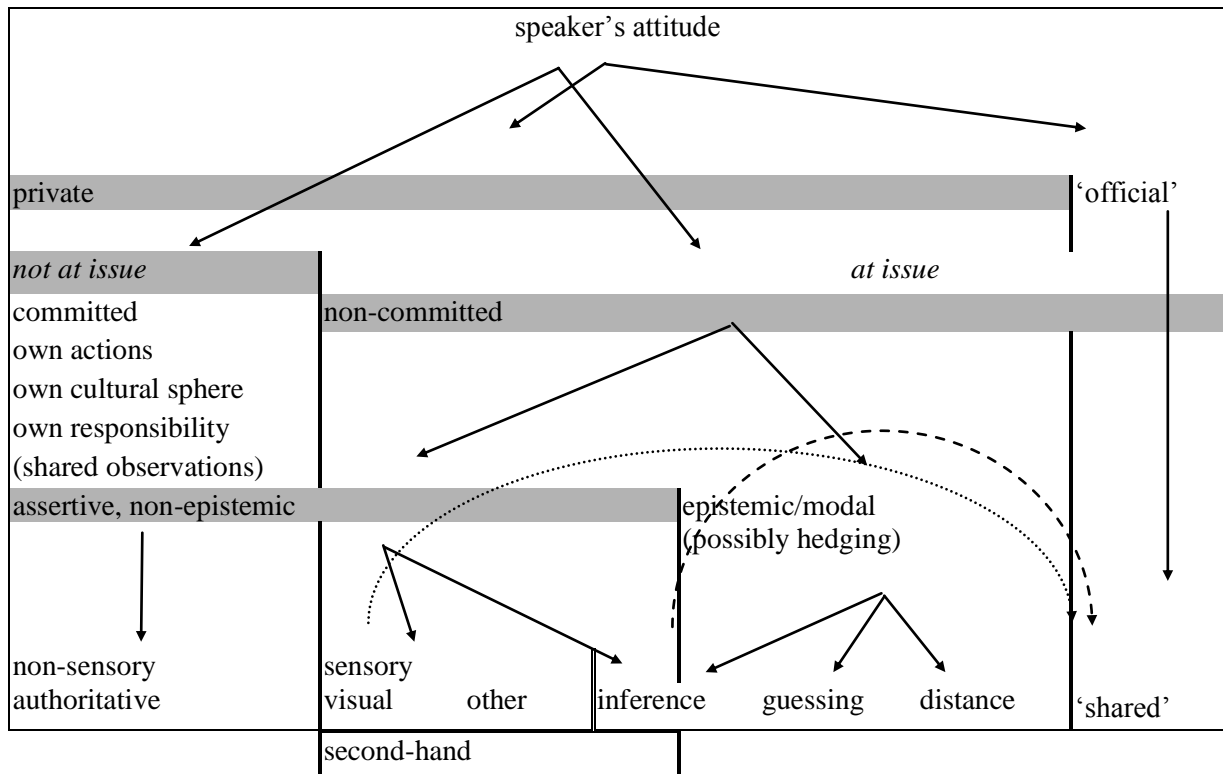
Such more fine-grained distinctions in every-day usage cannot be discovered with a standard framework of 'evidentiality', such as proposed by Aikhenvald (2004). The Ladakhi data was obtained mainly through the informants' spontaneous productions plus subsequent queries and through long-time participating observation. Compare my detailed questionnaire (Zeisler 2016) with earlier literature on Ladakhi, such as Koshal (1979) or Bielmeier (2000).

References

Aikhenvald, A. 2004. *Evidentiality*. Oxford: Oxford University Press.

Bielmeier, R. 2000. Syntactic, semantic, and pragmatic-epistemic functions of auxiliaries in Western Tibetan. In: B. Bickel (ed.), *Person and evidence in Himalayan languages.* Part I. *Linguistics of the Tibeto-Burman Area* 23.2: 79–125.

Friedman, V. 1981. Admirativity and confirmativity. *Zeitschrift für Balkanologie* 17.1: 12–28.

Jones, E. 2009. *Evidentiality and mirativity in Balti.* MA dissertation, School of Oriental and African Studies, University of London.

Koshal, S. 1979. *Ladakhi Grammar*. Delhi etc.: Motilal Banarsidass.

Oisel, G. 2013. *Morphosyntaxe et sémantique des auxiliaires et des connecteurs du tibétain littéraire. Étude diachronique et synchronique.* Thèse de doctorat. Laboratoire du LACITO – CNRS.

San Roque, L. and R. Loughnane. 2012. The New Guinea Highlands evidentiality area. *Linguistic Typology* 16: 111–167. doi: 10.1515/lingty-2012-0003 (accessed 29 January 2015).

Zeisler, B. 2016. Questionnaire. http://tulquest.huma-num.fr/fr/node/41.

Evidential strategies in Latin

Elena Zheltova

(St.Petersburg State University)

Inspite of the long in-depth study, Latin proved to have never been investigated from the angle of evidentiality. The aim of my paper, therefore, is to reveal Latin evidential strategies that seems to be important both for the linguistic typology and for the rethinking and reinterpretation of some grammatical phenomena in Latin.

Methodologically, in my study I will apply an approach to evidentiality as a category which is not necessarily expressed by a restricted number of special markers, but may have different strategies for "the linguistic coding of epistemology" (Chafe, Nichols 1986; Aikhenvald 2004).

The strategies under consideration are a part of Latin grammatical rather than lexical system, if one follows the extended notion of "grammatical system" which can include not only suffixes, clitics or particles, but also auxiliaries and free syntactic forms (Anderson 1986, 275). The Latin grammatical system seems to provide both morphological and syntactic means to convey all the basic sources of knowledge, i. e. direct (attested), indirect inferring and indirect reported evidences (Dendale, Tasmowski 2001, 343). Markers of the indirect evidence may also feature the epistemic evaluation of events.

Concerning the direct evidence, it can be expressed by both the indicative forms and the participle constructions (the so called *"participium praedicativum"*) governed by *verba sentiendi* (*videre 'to see', audire 'to hear'* etc.), as exemplified in (1):

(1) *M. Catonem **vidi** in bibliotheca **sedentem***
'I saw M. Cato seating in the library" (Cic., *Fin.* 3, 2, 7).

The strategy of expressing the inferring evidence includes, among others, the so called *Nominativus cum infinitio* with the verb *videri 'to seem'*, as in (2), and the clauses with present / perfect potential subjunctive, as in (3):

(2) *Ille mi par esse deo **videtur*** (Catull. 51, 1)
'That man **seems** to me to be equal to a god'

(3) *Non tibi sunt integra lintea, non di, quos iterum pressa **voces** malo*
'You have neither unharmed sail, nor images of the gods, that you **could pray** time and again when suffering disaster' (Hor. *Carm*., 1, 14, 9-10).

As regards the reported evidence, the Latin language can convey it by the forms of the subjunctive mood in the reported speech, the accusative / nominative with the infinitive constructions governed by *verba dicendi / sentiendi* (*dicere 'to say', sentire 'to feel', videre 'to see' etc.),* the logophoric use of the reflexive pronouns, etc. The epistemic evaluation is clearly seen from some occurrences of *Attractio modi ' the attraction of the mood'* as well as from the use of the subjunctive instead of the indicative mood in the reason clauses with *quod,* as in (4):

(4) *Aristides . . . nonne ob eam causam expulsus est patria, quod praeter modum iustus **esset?***
'Aristides . . . was not he banished from his country because he **was supposedly** too just?' (Cic. *Tusc.* 5, 105).

To sum up, Latin demonstrates a whole array of grammatical means conveying the basic semantic values of evidentiality.

References

Aikhenvald, A.Y, 2004. *Evidentiality.* Oxford, Oxford UP.

Anderson, L.B., 1986. Evidentials, paths of change, and mental maps: Typologically regular asymmetries, in: Chafe, Nichols 1986, 273-312.

Chafe, W., Nichols, J. (eds.), 1986. *Evidentiality: The linguistic coding of epistemology.* Norwood (NJ): Ablex.

Dendale, P., Tasmowski, L., 2001. Introduction: Evidentiality and related notions, in *Journal of pragmatics,* 33, 3, 339-348.

Understanding text coherence: Implicit discourse relations

Šárka Zikánová

(Charles University, Prague)

Our understanding of texts as coherent units is achieved through different language means. The Penn Discourse Treebank, a corpus of English texts with annotations of discourse relations, classifies one subgroup of coherence relations, so called *discourse relations* between sentences (discourse arguments), in the following way (Prasad et al., 2007, simplified):

- explicit discourse relations are marked with discourse connectives;
- implicit discourse relations cover cases where no discourse connective is present, but it can be inserted according to the semantics of both discourse arguments and to the semantics of the relation between them;
- entity-based relations connect an argument and an entity, typically a noun phrase, rather than two complete discourse arguments;
- the label "no relation" is assigned to the connection between two adjacent discourse arguments where no type of discourse relation can be identified.

In the course of the application of this scheme to Czech texts interesting questions have arisen. While the discourse connectives form a relatively well-defined group and the explicit discourse relations thus can be easily identified, the other types of connections need certain explanation. How do we recognize implicit discourse relations from the cases of "no relation" neighborhood? Is the possible insertion of a discourse connective a sufficient criterion? Other questions are connected with the strength of relations. Is it possible that the strength of the relations varies, e.g. is every occurrence of a relation between an entity and a discourse argument important for establishment of a discourse relation?

The present contribution provides an analysis of the pilot annotation of implicit relations, which was carried out on 1100 Czech sentences from journalistic texts in the Prague Dependency Treebank (Bejček et al., 2013). It deals especially with occurrences of inter-annotator disagreement, classifying typical cases of disagreement, such as:

- disagreement on the existence of a discourse relation (typically in dialogues, topic-shifts etc.)
- disagreement on the type of a discourse relation between the arguments, e.g. vague, broad semantic link of a loose continuation, cf. the following example.

<Arg 1: *V době, kdy se mezi našimi spisovateli těší oblibě sebestředné, autobiografické téma, dostává se k nám v českém překladu jedna z úhelných knih tohoto žánru: Věk dospělosti (TORST) francouzského básníka a etnologa Michela Leirise (1901–1990).>*
<Arg 2: *Frankofonní literatura, která v současné Evropě představuje cosi jako mocnost slovesného sebezkoumání, má v reflexi vlastního já dlouhou tradici: od Michela de Montaigne po Marcela Prousta...>*

<Arg 1: *At this time when a self-centered, autobiographical theme is still popular among our writers, one of the cornerstones of books in this genre appears in the Czech translation: The Age of Man (TORST) by French poet and ethnologist Michel Leiris (1901–1990).>*
<Arg 2: *Francophone literature, representing kind of a power in verbal self-examination currently in Europe, has a long tradition in the self-reflection: from Michel de Montaigne to Marcel Proust...>*

The results of the analysis help to set criteria for delimitation of an implicit relation and to treat border-line cases in the classification consistently.

References

Bejček, E. et al. 2013. Prague Dependency Treebank 3.0. Prague: Institute of Formal and Applied Linguistics.

Louis, Annie – Joshi, Aravind – Prasad, Rashmi – Nenkova, Ani. 2010. Using Entity Features to Classify Implicit Discourse Relations. *Proceedings of the SIGDIAL 2010 Conference*. Tokyo, Japan. Available from http://www.seas.upenn.edu/~pdtb/publications.shtml.

Pitler, Emily – Louis, Annie – Nenkova, Ani. 2009. Automatic Sense Prediction for Implicit Discourse Relations in Text. *Proceedings of the Joint Conference of the 47th Annual Meeting of the ACL and the 4th International Joint Conference on Natural Language Processing.* Singapore. Available from http://www.seas.upenn.edu/~pdtb/publications.shtml.

Prasad, Rashmi – Webber, Bonnie – Joshi, Aravind. 2014. Reflections on the Penn Discourse TreeBank, Comparable Corpora, and Complementary Annotation. *Computational Linguistics,* 40(4), 921–950.

Prasad, Rashmi – Miltsakaki, Eleni – Dinesh, Nikhil – Lee, Alan – Joshi, Aravind – Robaldo, Livio – Webber, Bonnie. 2007. *The Penn Discourse Treebank 2.0 Annotation Manual.* Technical Report IRCS-08-01. Philadelphia: Institute for Research in Cognitive Science, University of Pennsylvania. Available from http://www.seas.upenn.edu/~pdtb/index.shtml.

POSTER PRESENTATIONS

Typology, Motifs and Grammar of Bridge Names - A Pilot Study on the Bridge Names of Switzerland

Sandro Bachmann

Until now, bridge names have not received a lot of attention in the literature of onomastics. Introductions, surveys and handbooks on onomastics have so far not included bridge names (cf. Hough 2016; Nübling et al. 2015; Debus 2012; Brendler & Brendler 2004; Eichler et al. 1996). In cases where they are subsumed under the class of street names (hodonyms), they are – with one exception (Naumann 2004: 519) – not explicitly elaborated on, even when street names or place names are further categorised (cf. Fuchshuber-Weiß 1996: 1468; Neethling 2016; Naumann 2004: 495–496; 2001: 707–708). Therefore, a pilot study on the bridge names of Switzerland was conducted to present an overview of the typology, motifs and the grammar of German-language bridge names for the first time.

For the pilot study presented here, all German bridge names have been extracted from *swissNAMES³ᴰ* (available online[12]; cf. also BfL 2015), a database by the *Bundesamt für Landestopografie swisstopo* (BfL)[13] containing vector-based, georeferenced topographical names in Switzerland. For each name in the database, information on word formation, morphological complexity and etymology have manually been assigned.

Drawing from this data, the poster will highlight (1) the motifs of naming bridges, such as nearby places or mountains, crossing rivers or valleys, etc., (2) a typology of bridge names according to their compound head, such as *-brücke, -steg, -viadukt* etc., as well as (3) a brief insight into their grammar on the basis of determination structure (complexity and headedness of compounds).

References

BfL (2015) = Bundesamt für Landestopografie swisstopo (2015): Produktinformation swissNAMES³ᴰ. [Available online: https://www.swisstopo.admin.ch/content/swisstopo-internet/de/home/products/landscape/names3d/_jcr_content/contentPar/tabs/items/dokumente/tabPar/downloadlist/downloadItems/819_1464686062535.download/20150703swissnames3dproduktinfodebarrierefrei.pdf — last access: 09.01.2017]

Brendler, Andrea; Brendler, Silvio (Hrsg.) (2004): Namenarten und ihre Erforschung. Ein Lehrbuch für das Studium der Onomastik. (Lehr- und Handbücher zur Onomastik 1). Hamburg: Baar.

Debus, Friedhelm (2012): Namenkunde und Namengeschichte. Eine Einführung. Berlin: Erich Schmidt.

Eichler, Ernst; Hilty, Gerold; Löffler, Heinrich; Steger, Hugo; Zgusta, Ladislav (Hrsg.) (1996): Namenforschung. Ein internationales Handbuch zur Onomastik. 2. Teilband. (Handbücher zur Sprach- und Kommunikationswissenschaft 11.2). Berlin: De Gruyter. [DOI: 10.1515/9783110148794.2]

Fuchshuber-Weiß, Elisabeth (1996): Straßennamen: deutsch. In: Eichler, Ernst; Hilty, Gerold; Löffler, Heinrich; Steger, Hugo; Zgusta, Ladislav (Hrsg.): Namenforschung. Ein internationales Handbuch zur Onomastik. 2. Teilband. (Handbücher zur Sprach- und Kommunikationswissenschaft 11.2). Berlin: De Gruyter. 1468–1475. [DOI: 10.1515/9783110148794.2.16.1468]

Hough, Carole (Hrsg.) (2016): The Oxford Handbook of Names and Naming. Oxford: Oxford University Press. [DOI: 10.1093/oxfordhb/9780199656431.001.0001]

Naumann, Horst (2004): Namen von Verkehrswegen und Plätzen. In: Brendler, Andrea; Brendler, Silvio (Hrsg.): Namenarten und ihre Erforschung. Ein Lehrbuch für das Studium der Onomastik. (Lehr- und Handbücher zur Onomastik 1). Hamburg: Baar. 491–526.

Naumann, Horst (2001): Geographische Namen. In: Fleischer, Wolfgang; Helbig, Gerhard; Lerchner, Gotthard (Hrsg.): Kleine Enzyklopädie Deutsche Sprache. Frankfurt am Main: Peter Lang. 684–711.

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[12] http://www.swisstopo.admin.ch/internet/swisstopo/de/home/products/landscape/swissNAMES3D.html
[13] ‚Federal Office of Topography swisstopo'

Neethling, Bertie (2016): Street Names: A Changing Urban Landscape. In: Hough, Carole (Hrsg.): The Oxford Handboook of Names and Naming. Oxford: Oxford University Press. 144–157. [DOI: 10.1093/oxfordhb/9780199656431.013.50]
Nübling, Damaris; Fahlbusch, Fabian; Heuser, Rita (2015): Namen. Eine Einführung in die Onomastik. 2. überarb. und erw. Aufl. Tübingen: Narr Francke Attempto.

Disambiguating Left Peripheral Ellipsis in Romanian

Gabriela Bîlbîie

(University of Bucharest & Laboratoire de Linguistique Formelle, Paris)

When studying ellipsis, a problematic aspect in a typological perspective is the fact that languages have sometimes ambiguous configurations which a priori are candidates for more than one elliptical construction. Here we deal with so-called 'Non-Constituent Coordination' such as (1a), for which two competing analyses have been proposed cross-linguistically: (i) *Left Peripheral Ellipsis* (Sag 1976, van Oirsouw 1987, Wilder 1997, Beavers & Sag 2004, etc.) with an ordinary coordination of two verbal/clausal constituents and an ellipsis of the main verb in the second conjunct (1b), or (ii) *Argument Cluster Coordination* (Dowty 1988, Steedman 2000, Mouret 2007, etc.), with no ellipsis at all, by rather some unordinary coordination of two non-standard constituents in the scope of a shared predicate (1c).

(1)   a   verb argument1 argument2 conj argument1' argument2'
           b   [verb argument1 argument2] conj [argument1' argument2']
           c   verb [[argument1 argument2] conj [argument1' argument2']]

Some languages have devices to choose between these two competing analyses. In particular, we show that in Romanian one has to distinguish between the patterns with the conjunction *iar* 'and' (a specific clausal coordinator, which is the most frequent conjunction in Romanian elliptical constructions) and the patterns with the conjunction *şi* 'and' (based on various empirical tests, such as agreement, scope of associatve adverbs, scope of relational adjectives, prosody, correlative items). The first pattern with *iar* have to be analyzed as in (1b) and, in particular, both conjuncts have to be treated as clauses (i.e. a clausal coordination), whereas the pattern with *şi* may be analyzed as in (1c), with one single clause and a coordination of sequences (i.e. subclausal cluster coordination).

We propose a construction-based account (HPSG, Ginzburg & Sag 2000) of both patterns by making use of the syntactic categories *fragment* and *cluster*: (1b) is thus a particular type of asymmetric coordination with the first conjunct as being non-elliptical and verbal, and the second conjunct as fragmentary and non-verbal (an analysis required otherwise in Romanian Gapping constructions), whereas (1c) is a particular type of symmetric subclausal coordination of two clusters, in the scope of a shared predicate.

Our data show that the relevance of any approach on ellipsis must be evaluated language-by-language: the same elliptical phenomenon may require different syntactic representations even within the same language (in particular, the distinction between a clausal constituent and a subclausal one is not always trivial, especially for languages with free word order, and have to be established based on various empirical tests). From a theoretical point of view, our data show that it is not always possible to reduce elliptical phenomena to a single mechanism (as usually done in mainstream grammars): some patterns may require an elliptical process, while others, not necessarily.

References

Beavers, J. & I.A. Sag 2004. Ellipsis and apparent non constituent coordinations. In S. Müller (ed.), *Proceedings of the HPSG'04 Conference*. Stanford : CSLI Publications. 48-69.

Dowty, D. 1988. Type raising, functional composition, and non-constituent conjunction. In R. Oehrle, E. Bach & D. Wheeler (eds.), *Categorial grammar and natural language structures*. Dordrecht : Kluwer. 153-198.

Ginzburg, J. & I.A. Sag 2000. *Interrogative investigations : the form, meaning and use of English interrogatives*. Stanford : CSLI Publications.

Mouret, F. 2007. Grammaire des constructions coordonnées. Coordinations simples et coordinations à redoublement en français contemporain. Thèse de doctorat. Université Paris 7.

Sag, I.A. 1976. *Deletion and Logical Form*. Thèse de doctorat. MIT.

Steedman, M. 2000. *The syntactic process*. Cambridge : MIT Press.

van Oirsouw, R. 1987. *The Syntax of coordination*. London – New York : Routledge.

Wilder, C. 1997. Some properties of ellipsis in coordination. In A. Alexiadou & T. Hall (eds.), *Studies in Universal Grammar and Typological Variation*. Amsterdam : John Benjamins. 59-107.

The extractability of genitive N-complements and its implications for the size of the nominal projection in Polish

Piotr Cegłowski

(Adam Mickiewicz University)

This presentation focuses on the extractability of N-complements in Polish and its potential significance for the size of nominal projections. The point of departure is Bošković's (2014a,b) assumption that extraction of genitive N-complements in NP-languages (Polish, Serbo-Croatian, etc.) is illicit for the same reason why it is licit in DP-languages (English, etc.), i.e., due to Antilocality.

(1) (Bošković 2014b: 48)
 ?*[Ovog grada]$_i$ sam pronašla [$_{NP}$ sliku t$_i$] (SC)
 this city am found picture
 '*Of this city I found a/the picture*'

Given the correlation between the alleged absence of the DP-layer and the extractability of N-complements, Polish should pattern along with SC. However, the judgements are far from clear-cut (2) (see also Rappaport 2001).

(2) [Którego miasta]$_i$ znalazłeś [zdjęcie t$_i$]? ?? (Polish)
 which city (you) found picture
 '*Which city did you find a picture of*?'

Extractability of N-complements across numerals (extraction from QP) constitutes yet another intriguing point. Following the Genitive-of-Quantification scenario (Franks 1994; Bošković 2010, 2014), the presence of QP (a potential phase) is expected hinder N-complement extraction, similar to DP in English, consider (3) and (4), respectively.

(3) $[NP_{GEN}]_i ... [_{QP} *t_i [_{QP} Num(P) [_{Q'} Q [_{FP} t_i [_{F'} F [_{NP} [_{N'} N t_i]]]]]]]$ (*Antilocality)

(4)   Tego miasta   widziałem siedem zdjęć.
        $[this city.GEN]_i$ (I) saw $[_{QP} seven [_{FP} [_{NP} pictures t_i]$
        'Of this city, I saw seven pictures.'

Specifically, Antilocality forces the N-complement to move to the edge of FP. Provided QP is a phase (Despić 2011), the complement should stop over at QP to satisfy Phase Impenetrability Condition (Chomsky 2001). At the same time, Antilocality should block the movement from FP to QP. In turn, any direct extraction from FP, although sufficiently 'antilocal', would be expected to violate the PIC.

In order to test the acceptability of the two types of constructions (extraction of N-complement, extraction of N-complement across a numeral) a Likert scale - based empirical study has been conducted. The subjects (183 native speakers of Polish) were asked to judge the acceptability of the input sentences on a scale from 1 to 5. The results not only revealed that N-complements are (at least marginally) extractable, but also proved the presence of the numeral to increase the its acceptability.

Finally, it should also be observed that Polish also allows movement of the N-complement *within* the nominal (5).

(5) $[[TEGO   MIASTA]_i zdjęcie t_i]_j$ znalazłem t_j w gazecie.
        this   city   picture   (I) found   in newspaper
        'I found a picture of this city in the newspaper.'

The fact that native speaker judgements support the acceptability of sentences like (2) and (4), coupled with the availability of discourse-driven NP-internal fronting (5), provides legitimate reasons to assume that the nominal structure in Polish is fairly elaborate (in any case, richer than NP). It is argued that the structure minimally contains the sequence of projections constituting the discourse domain, which triggers movements like (5) and possibly 'mediates' in further extraction of the N-complement (see Grohmann 2000; Ihsane & Putskás 2001), consider (6).

(6) $[_{DP} [_{TopP} [_{FocP} [_{AgrP} [_{NP} ...]]]]]]$

In a broader perspective, an approach along these lines may offer interesting insights into the (un)grammaticality of other types of extraction, e.g., deep Left Branch Extraction.

Selected references

Bošković, Ž. 2010. "Phases and Left-Branch Extraction". (handout) *Moscow Student Conference on Linguistics* 5. Moscow State University.

Bošković, Ž. 2014a. "Now I am a phase, Now I am Not a Phase: On the Variability of Phases with Extraction and Ellipsis". *Linguistic Inquiry* 45/1. 27-89.

Bošković, Ž. 2014b. "More on the Edge of the Edge". In: Chapman, C., O. Kit, and I. Kučerová (eds.) *Formal Approaches to Slavic Linguistics: The McMaster Meeting 2013 (FASL 22)*. Michigan, MI: Michigan Slavic Publications. 44-66.

Chomsky, N. 2001. "Derivation by phase". In: Kenstowicz, M. (ed.) *Ken Hale: A life in language*. Cambridge, Mass.: MIT Press. 1-52.

Despić, M. 2011. *Syntax in the absence of determiner phrase*. Doctoral dissertation. University of Connecticut.

Franks, S. 1994. "Parametric properties of numeral phrases in Slavic". *Natural Language and Linguistic Theory* 12. 570-649.

Gavrusheva, E. 2000. "On the syntax of possessor extraction". *Lingua:* 110. 743-772.

Grohmann, K. 2000/2003. *Prolific domains: on the anti-locality of movement dependencies.* Amsterdam: John Benjamins.

Ihsane, T. & G. Putskás. 2001. "Specific is not definite". *Generative Grammar in Geneva* 2. 39-54.

Rappaport, G. 2001. "Extraction from Nominal Phrases in Polish and the Theory of Determiners". In: Willim, E. and P. Bański (eds.) 2003. *Formal Approaches to Polish Syntax.* Special edition of *Journal of Slavic Linguistics*.

Witkoś J. and D. Dziubała-Szrejbrowska. 2015. "A note on the Genitive of Quantification in Polish and derivational phases". *Poznań Studies in Contemporary Linguistics* 51/3. 433-462.

Ambiguous [V + V] sequences in Turkic

Éva Á. Csató, Lars Johanson, & Birsel Karakoç
(Uppsala University, University of Mainz & Uppsala University)

Turkic morphology, known for its exceptional regularity, presents numerous ambiguous forms causing intricate problems for automatic parsers. This talk will deal with some cases of systematic ambiguities of [verb + verb] sequences, focusing on the relation between overtly present syntactic and morphological properties and the range of ambiguity. Possible cross-linguistically consistent treebank annotations of the alternative readings, for instance, in Universal Dependencies (UDD, Csató et al. 2016) will not be presented. The purpose is to spell out the facts needed for defining the alternative annotations.

Syntactic and semantic properties of different types of [verb + verb] sequences have been treated, e.g., in Johanson (1995a and b), Csató (2001, 2003), and Karakoç (2005, 2007). Such sequences serve as targets of typical Turkic grammaticalization processes resulting in the grammaticalization of the second verb—belonging to a limited set of semantic class—as an actionality modifier and/or viewpoint aspect operator. Grammaticalization, however, often results in ambiguity, as the grammaticalized items may not demonstrate any special morphological or syntactic properties distinguishing them from the corresponding lexical items. Accentuation can resolve certain types of ambiguities, but it is normally not coded in digitalized texts.

Types of ambiguities to be discussed:

1. Two juxtaposed finite verb forms, where the second one is listed in a special class. For instance, Turkish *aldı gitti* [take-di.past3sg go-di.past3sg] is ambiguous between the readings
(a) two juxtaposed (coordinated) predications based on two lexical verbs 'X took (it) and went', and
(b) a lexical verb followed by a grammaticalized actionality modifier 'X took (it) (definitively)' (Csató 2001).
The two readings can be accounted for by two different syntactic annotations (paratactic S+S vs. V+advmodifier). Observe that an actionality modifier may be treated as an adverbial modifier but that its cross-linguistic meaning is special, being a grammaticalized category denoting a vague concept which cannot or should not be rendered by an adverb in other languages.

2. A converb and a following inflected (finite) verb; e.g. the expression *alıp gitti* [take-conv go-di.past3sg] is ambiguous between

(a) two predications of which the first is subordinated but semantically not modifying 'X took (it) and X went',

(b) two predications of which the first is modifying 'taking X went',

(c) a lexical verb followed by a grammaticalized actionality modifier (belonging to a limited set) 'X took it (definitively)'.

3. Certain actional modifiers have been further grammaticalized as viewpoint markers. Such constructions can be systematically ambiguous between

(a) an actionality and

(b) a viewpoint reading. For instance, the Noghay construction containing the converb form in *-IP* of a lexical verb and an inflected form of the auxiliary verb *tur[adï]* (< 'to stop, stand'). This construction is systematically ambiguous between a durative (actionality) reading and a high focal intraterminal (viewpoint aspect) reading.

(c) Moreover, the second verb in this Noghay expression may also be used as a lexical verb (see Type 2) (Karakoç 2005: 172).

Examples will be given from Turkic languages, especially Noghay, which makes abundant use of postverbial constructions. In Standard Turkish this ambiguity is less frequent.

References

Csató, Éva Á. 2001. Turkic double verbs in a typological perspective. In: Karen H. Ebert & Fernand Zúñiga (eds.) *Aktionsart and Aspectotemporality in Non-European Languages. Proceedings from a workshop held at the University of Zurich, June 23–25, 2000.* Zürich: Universität Zürich. [Arbeiten des Seminars für Allgemeine Sprachwissenschaft 16]. 175–187.

Csató, Éva Á. 2003. A typology of Turkish double–verb constructions. In: A. Sumru Özsoy (ed.) *Studies in Turkish linguistics*. Istanbul: Boğaziçi University Press. 105–110.

Csató, Éva Á. & Kaşıkara, Hüner & Megyesi, Beáta & Nivre, Joakim 2015. Parallel corpora and Universal Dependency for Turkic. *Turkic Languages* 19, 259–273.

Johanson, Lars 1995a. On Turkic converb clauses. In: Haspelmath, Martin & König, Ekkehard (eds.) *Converbs in cross-linguistic perspective. Structure and meaning of adverbial verb forms – adverbial participles, gerunds*. (Empirical approaches to language typology 13.) Berlin & New York: Mouton de Gruyter. 313–347.

Johanson, Lars 1995b. Mehrdeutigkeit in der türkischen Verbalkomposition. In: Erdal, Marcel & Tezcan, Semih (eds.) Beläk Bitig. Sprachstudien für Gerhard Doerfer zum 75. Geburtstag. (Turcologica 23.) Wiesbaden: Harrassowitz. 81–101.

Johanson, Lars 2011. Grammaticalizaton in Turkic languages. In: Narrog, Heiko & Heine, Bernd (eds.) *The Oxford handbook of grammaticalization*. Oxford: Oxford University Press. 752–761.

Karakoç, Birsel 2005. *Das finite Verbalsystem im Nogaischen*. (Turcologica 58.) Wiesbaden: Harrassowitz.

Karakoç, Birsel 2007. Ein Überblick über postverbiale Konverbien im Nogaischen. In: Boeschoten, Hendrik & Stein, Heidi (eds.) *Einheit und Vielfalt in der türkischen Welt. Materialien der 5. Deutschen Turkologenkonferenz*. (Turcologica 69.) Wiesbaden: Harrassowitz. 215–229.

Megyesi, Beáta & Dahlqvist, Bengt & Csató, Éva Ágnes & Nivre, Joakim 2010. The English-Swedish-Turkish parallel treebank. In: *Proceedings of Language Resources and Evaluation* (LREC 2010), May 2010.

UDD = Universal Dependencies Documentation. http://universaldependencies.org/.

Towards the polysemy of directional case markers: Evidence from Hill Mari

Tanya Davidyuk

(Lomonosov Moscow State University)

There are three locative cases in Hill Mari (a Finno-Ugric language): inessive, illative and lative ([Alhoniemi 1993], [Savatkova 2002]; elative meaning is expressed with a postposition). The most challenging one is lative, which develops a non-standard polysemy. Particularly, it demonstrates a typologically non-trivial shift from its initial directional semantics to causal semantics (cf. [Luraghi 2014]). I will analyze the uses of lative (previously not described in full detail) and put forward a hypothesis explaining its polysemy. My data has been collected mostly by elicitation in fieldwork (the village of Kuznecovo, 2016).

Lative (*-eš*) is diachronically a directional case ([Galkin 1964: 51-52], [Ylikoski 2011: 261-265]). In the modern language, however, the directional meaning is primarily expressed with illative (*-škə̂ / -škə̂*), which has partially common origin with lative [Ylikoski 2011]. Lative is restricted to contexts focusing on the resultant location of a moving entity: among 40 relevant verbs from our sample, it is compatible with verbs like *optaš* 'to pour [water into a glass]', *pə̂dalaš* 'to hammer in [a nail into the wall]', but not with verbs like *keäš* 'to come [into a shop]', *šuaš* 'to throw [a ball at a wall]' which focus only on reaching the endpoint. Illative is possible in both cases, see (1)–(2). The dual nature of lative holds in its semantic shifts (e.g. in temporal uses, to be illustrated in the talk).

(1) *mə̂n'* **xala-škə̂/** ***xala-eš** *tol-ə̂n-am*
     I   city-ill city- lat arrive-pfv-1sg
     'I arrived **in the city**'.

(2) *mə̂n'* **stenä-eš/** **stenä-škə̂** *kartin-ə̂m* *säk-em*
     I   wall-lat/   wall-ill picture-acc hang-npst.1sg
     'I hang a picture **on the wall**'.

Stemming from the semantics of an endpoint with a focused resultant location, lative marks a location itself, competing here with inessive (this shift is probably similar to the goal-bias metonymy like 'to fly over the hill' → 'to live over the hill' see e.g. [Brugman, Lakoff 1988]). However, two locative cases diverge here: whereas inessive describes any kind of location, lative can only refer to a location where a patient-like participant undergoes changes. For example, lative is possible in contexts like 'to be born in Moscow' or 'to cook something in a pan', but not in contexts like 'to live in Moscow' or 'to sleep in bed'. Probably variants of this meaning are the syncretic role of instrument and location (3), and the role of vehicle (but only about a passive motion of a passenger, (4) - (5):

(3) *päšäzə̂* **stanok-eš/** **stanok** **dono** *detal'-ə̂m* *ə̂št-ä*
     worker   machine-lat   machine   with   component-acc do-npst.3sg
     'A worker processes a component **by a machine**'.

(4) *mə̂n'* *šə̂nz-em* *lül'k-ə̂štə̂.* *mə̂n'* **motocikl-eš** *kə̂dal-am*
     I   sit-npst.1sg   sidecar-in   I   motorbike-lat ride-npst.1sg
     'I'm sitting in a sidecar. I'm riding **in a motorbike**'.

(5) *mǝn'* *rul'-ǝm* *kǝč-em.* *mǝn'* **mašinä dono/**
   I steering.wheel-acc hold-npst.1sg I car   with
^{??}**mašin-eš** *kǝdal-am*
  car-lat   ride-npst.1sg
  'I'm holding a steering wheel. I'm driving **a car**'.

   Besides, lative marks the reason of a change. It can be explained as a metaphor from a location where something changes (the semantic class having shifted to any kind of abstract entity). Note that lative expresses only a direct reason (6), while an indirect reason is encoded in other ways (7).

(6) **ǝrlǝxän-eš** *tǝdǝ-n* *licä-eš-ǝžǝ*   *lim* *läkt-ǝn*
  measles-lat he-gen face-lat-poss.3sg   scabe appear-pfv
  'Scabes appeared on his face **because of measles**'.

(7) **ǝrlǝxän verc/** ***ǝrlǝxän-eš** *tǝdǝ* *škol-ǝškǝ* *ak*
  measles because.of measles-lat he school-ill neg.npst.3sg
  kaštǝ
  go
  'He doesn't go to school **because of measles**'.

   As has been stated with reference to [Luraghi 2014], directional cases are not supposed to derive the semantics of reason. Therefore the polysemy of the Hill Mari lative presents a typological challenge. Its development, however, does not seem to be a sudden leap from the directional semantics, but it is rather a result of a gradual semantic evolution (8), being in line with several other uses of lative.

(8) direction / endpoint → endpoint & resultant location → location of change → direct reason of change

Abbreviations

acc — accusative; conv — converb; gen – genitive; ill — illative; in — inessive; lat — lative; npst — nonpast tense; pfv — 2nd past tense; sg — singular

References

[Alhoniemi 1993] - Alhoniemi, A. Grammatik des Tscheremissischen (Mari): mit Texten und Glossar (aus dem Finn. übers. von Hans-Hermann Bartens). - Hamburg: Buske, 1993

[Brugman, Lakoff 1988] - Brugman, C.; Lakoff, G. Cognitive topology and lexical networks // Cottrell, G.W. et al. (eds.), Lexical ambiguity resolution: perspectives from psycholinguistics, neuropsychology and artificial intelligence. San Mateo (CA): M. Kaufman, 1988. PP.477-508

[Galkin 1964] – Galkin I.S. Istoričeskaja grammatika marijskogo jazyka. Morfologija. Čast' I. [Historical grammar of Mari. Morphology. Part I] - Yoshkar-Ola: Marijskoje knižnoje izdatel'stvo, 1964. [Luraghi 2014] – Luraghi S. Plotting diachronic semantic maps: the role of metaphors // S. Luraghi, H. Narrog (eds.) Perspectives on semantic roles. Benjamins, 2014. PP. 99-150.

[Savatkova 2002] – Savatkova A.A. Gornoje narečije marijskogo jazyka [Hill Mari language] - Savariae, 2002

[Ylikoski 2011] - J. Ylikoski. A survey of the origins of directional case suffixes in European Uralic // S. Kittilä, K. Västi, J. Ylikoski (eds.). Case, Animacy and Semantic Roles (Typological Studies in Language, v. 99). John Benjamins, 2011. PP. 235-280.

Acquisition of motion semantics in Russian[14]

Polina Eismont

(Saint Petersburg State University of Aerospace Instrumentation)

The presentation discusses the development of syntax and semantics of the verbs of motion in Russian. The study relies on the results of a series of experiments with Russian native children at the age of 2;7 to 7;6, who had to retell a story, presented to them as a series of toy actions (for 2;7-3;6 year old children), a series of pictures (for 3;7-4;6 year old children) or as a cartoon in a silent mode (for 5;6-7;6 year old children). The total number of 213 children has been studied. The results show that despite children start using verbs of motion quite early, their early language is poor both in lexical units and in different syntactic structures. The presentation focuses on the development of PATH and MANNER [Talmy 1985] representation and emphasizes a significant difference between Russian verbs of movement and verbs of displacement [Tesnière 1959]. The study argues that at the early stages Russian native children tend to omit any specific information about the motion event and choose such "general" verbs of motion as *idti* 'go' or even skip the verbs of motion by labeling the result instead of the motion itself. Russian native children start explicitly differentiate the manner of motion and use a wide range of displacement verbs only at the age of 4;6. As the verbs of movement and the verbs of displacement differ in their syntactic structures, the study also reveals the interconnections between PATH and MANNER acquisition and the use of different syntactic structures and supports the view that the acquisition of syntax gradually develops depending on the increasing number of the acquired verbs of a particular semantic group.

References

Talmy L. Lexicalization patterns: Semantic structure in lexical forms. In T. Shopen (Ed.), Language typology and syntactic description, 1985, pp. 57-149. New York, NY: Cambridge University Press.

Tesnière, L. Eléments de syntaxe structurale. 1959. Paris : Klincksieck.

A Romance perspective on subordination and fragments

Oscar García Marchena & Gabriela Bîlbîie

(University of Bucharest & Laboratoire de Linguistique Formelle, Paris & Ecole Polytechnique & Laboratoire de Linguistique Formelle, Paris)

It is usually assumed – based especially on English data – that some elliptical constructions, e.g. gapping, cannot be embedded within the conjunct it belongs to (Hankamer 1979, Neijt 1979 and the subsequent literature). Therefore, according to Johnson (2009, 2014), there would be a strong syntactic constraint on gapping, i.e. 'the no embedding constraint' (1):

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(1)   *Some <u>had eaten</u> mussels and **she claims** [**that** others shrimp].

We focus here on attested data from two Romance languages (Romanian and Spanish) showing that 'the no embedding constraint' is too strong crosslinguistically. French, like English, can only embed fragments without complementizer, while Romanian and Spanish fragments can be easily embedded.

We first look at fragments with a single remnant (called *stripping* in the literature) and then at *gapping* (i.e. clusters of at least two remnants, lacking the verbal head). Both constructions allow embedding with relatively same kinds of semantic predicates in both Romanian and Spanish. Previous work on Spanish fragments (de Cuba & MacDonald 2013, Fernández-Sánchez 2016) insists on the crosslinguistic relevance of the semantic distinction (factive vs. non factive predicates, cf. Hooper 1974) as a very strong constraint for fragment embedding. Our attested data show that this constraint is too strong : in both Romance languages, fragments and gapping can be embedded under non factive predicates (*think, suppose, imagine*, etc.), but also under semi-factive ones (*find out, know, see,* etc.), being excluded with factive predicates (*regret, forget, amuse,* etc.). We observe however that embedded gapping is sensitive to more criteria than embedded fragments in general (high frequency of true/false and epistemic predicates, symmetrical/reciprocal relations or reinforced semantic contrast), which is expected, since gapping, unlike other fragments, imposes very strong semantic and discursive constraints (Hartmann 2000, Kehler 2002).

We analyze these embedded fragments as a kind of unorthodox embedding : syntactically, a fragmentary clause is embedded under a main clause, but semantically, this main clause has a parenthetic use (i.e. it is the content of the embedded clause that is the main content of the utterance, cf. Hooper 1974 a.o.) and pragmatically, the embedding predicate in the main clause has a discursive function, i.e. an evidential marker (indicating the speaker's grounds for asserting the complement, cf. Simons 2007 a.o.). This recalls the complex interaction of multiple factors (syntactic, semantic and pragmatic) assumed by Green (1976 : 382) to explain the embeddability of so-called Main Clause Phenomena: "A number of syntactic constructions claimed by linguists to be restricted to main clauses are shown to occur, in fact, in a variety of subordinate clause types, but only under certain mysterious conditions – basically, when the speaker desires to be understood as committed to the truth of the subordinate clause."

Our data support a continuum analysis for embedding fragments crosslinguistically. Typologically, there are three kinds of languages with respect to embedded fragments/gapping: languages where embedded gaps are impossible (English, French), languages where embedded gaps are possible only with some kinds of predicates (Romanian and Spanish) and languages where embedded gaps are possible under a wide range of non-parenthetical embedding verbs (Farsi, cf. Farudi 2013).

References

de Cuba, C. & J. MacDonald 2013. On the Referential Status of Embedding Polarity Answers in Spanish. In J. Cabrelli Amaro *et al.* (eds.), *Selected Proceedings of the 16th Hispanic Linguistics Symposium.* 212-223. Somerville, Mass. : Cascadilla Proceedings Project.

Farudi, A. 2013. Gapping in Farsi : a crosslinguistic investigation. PhD Thesis, University of Massachusetts at Amherst.

Fernández-Sánchez, J. 2016. Embedded gapping isn't gapping and embedded stripping, stripping. Paper presented at the *2016 Hispanic Linguistics Symposium*, Georgetown University, Washington D.C.

Green, G. 1976. Main Clause Phenomena in Subordinate Clauses. *Language* 52(2), 382-397.

Hankamer, J. 1979. *Deletion in coordinate structures*. New York : Garland Pub.

Hartmann, K. 2000. *Right node raising and gapping. Interface conditions on prosodic deletion*. John Benjamins.

Hooper, J. 1974. On assertive predicates. In J. Kimball (ed.), *Syntax and Semantics* 4. 91-124. New York : Academic Press.

Johnson, K. 2009. Gapping is not (VP-) ellipsis. *Linguistic Inquiry* 40, 289-328.

Johnson, K. 2014. Gapping. Manuscript, University of Massachusetts at Amherst.

Kehler, A. 2002. *Coherence, Reference, and the Theory of Grammar*. CSLI Publications.

Neijt, A. 1979. Gapping : a contribution to sentence grammar. Dordrecht : Foris.

Simons, M. 2007. Observations on embedding verbs, evidentiality, and presupposition. *Lingua* 117, 1034-1056.

Western Mari conditionals and their camera obscura

Anastasia Gareyshina

(Independent)

Overview. I argue that Western Mari counterfactuals (WM<Mari<Uralic) show unusual TA(M) properties within their verbal complexes. I collected relevant examples during the fieldwork in the Kuznetsovo village, the republic of Mari El, in 2016-2017. I demonstrate counterfactual strategies and propose analysis following (Iatridou 2000), which states that counterfactuals cross-linguistically are fake Aspect environments. I conclude that in WM counterfactuals, fake Tense plays a similar role in obscuring Aspect.

Data. Examples (1)-(4) show ways to compose counterfactuals. In (1), there is a dedicated invariable form 'ǝlgecǝ̈', synthetic conditional verb forms absent in the dialect. (2) shows that 'ǝlgecǝ̈' can be replaced with arguably interchangeable verbs 'ǝl'ǝ̂'/'ǝlǝn', combined with the standard conditional conjunction 'gǝ̈n'(-ǝ̈)'. Lexical verb in (non-)past tense alone lacks counterfactual conditional interpretation; morphologically, WM counterfactuals have no future tense. Apodosis necessarily has 'ǝl'ǝ̂'/'ǝlǝn', apart from main verb (or else (1)-(2) become ungrammatical as counterfactuals). (1) demonstrates that 'ǝl'ǝ̂' is less usual than 'ǝlǝn', allegedly reflecting their root uses. (2) suggests that parallelism in verb forms is preferred, 'ǝl'ǝ̂' in protasis followed by 'ǝl'ǝ̂' in apodosis, the same symmetry holding for 'ǝlǝn'. In (3), present/past counterfactuals are differentiated via the lexical verb tense and the chosen 'ǝl'ǝ̂'/'ǝlǝn' form, only the combination of the past tense and 'ǝlǝn' invariably signaling past counterfactual interpretation. (4) shows the contrast between a non-past lexical verb form and a past one, discriminating between an imperfective and a perfective aspect, respectively.

Analysis. Relying on adverbials and continuations for counterfactuals, we show that protasis is truly future-oriented, due to the 'auxiliaries' 'ǝlgecǝ̈'/'ǝl'ǝ̂'/'ǝlǝn'. We extend Iatridou's analysis to WM conditionals, incorporating the intuition that non-past lexical verb morphology encodes imperfective, whereas past morphology conveys perfective, Tense being the Aspect camera obscura. We attempt at reconciling analyses in (Iatridou 2000) and (Stephenson 2007), tying counterfactuals/indicatives together.

Examples.

(1) ves   xala-škǝ̂   vanž-ǝn-äm   **ǝl-gec-ǝ̈**,   u   täng-vlä-m
    another   town-ILL   relocate-PST2-1SG **be-COND-PST1.3SG** new   friend-PL-ACC
    voj-en-äm   [OK]ǝlǝn/[?OK]ǝl'ǝ̂.
    find-PST2-1SG   be.PST2.3SG/be.NARR.3SG
    'If I relocated to another town, I would find new friends.'

(2) a. ves   xala-škə̂   vanž-ə̈n-äm   **ə̂l'ə̂**   ***(gə̈n')**,   u   täng-vlä-m
     another   town-ILL   relocate-PST2-1SG   **be.NARR.3SG**   **if**   new   friend-PL-ACC
     voj-en-äm   [?OK]ə̂lə̂n/[OK]ə̂l'ə̂.
     find-PST2-1SG   be.PST2.3SG/be.NARR.3SG

     b. ves   xala-škə̂   vanž-ə̈n-äm   **ə̂lə̂n**   ***(gə̈n')**,   u   täng-vlä-m
     another   town-ILL   relocate-PST2-1SG   **be.PST2.3SG**   **if**   new   friend-PL-ACC
     voj-en-äm   [OK]ə̂lə̂n/[?OK]ə̂l'ə̂.
     find-PST2-1SG   be.PST2.3SG/be.NARR.3SG

     Intended: 'If I relocated to another town, I would find new friends.'

(3) a. ves   xala-škə̂   vanž-ə̈n-äm   **ə̂l'ə̂**   **gə̈n'**,   u   täng-vlä-m
     another   town-ILL   relocate-PST2-1SG   **be.NARR.3SG**   **if**   new   friend-PL-ACC
     voj-en-äm   ***ə̂l'ə̂/%ə̂lə̂n**.
     find-PST2-1SG   be.NARR.3SG/be.PST2.3SG

     b. ves   xala-škə̂   vanž-ə̈n-äm   **ə̂lə̂n**   **gə̈n'**,   u   täng-vlä-m
     another   town-ILL   relocate-PST2-1SG   **be.PST2.3SG**   **if**   new   friend-PL-ACC
     voj-en-äm   **%ə̂l'ə̂/[OK]ə̂lə̂n.**.
     find-PST2-1SG   be.NARR.3SG/be.PST2.3SG

     Intended: 'If I had relocated to another town, I would have found new friends.'

(4) a. ekzämen-eš   **jämdel-ält-äm**   ə̂l-gec-ə̂,   a.m
     exam-LAT   **prepare-REFL-NPST.1SG**   be-COND-PST1.3SG   AUX.NEG.PRS.1SG
     amal-ə̂   ə̂lə̂n.
     sleep-CN   be.PST2.3SG

     'If I **had been studying** for an exam, I would not have fallen asleep [while reading].'

     b. ekzämen-eš   **jamdel-ält-en-äm**   ə̂l-gec-ə̂,   mə̈n'
     exam-LAT   **prepare-REFL-PST2-1SG**   be-COND-PST1.3SG   I.NOM
     tə̂m.d-ə̂šə̂   gə̈c   a.m   lüd   ə̂lə̂n.
     learn.CAUS-PRTCP.ACT   from   AUX.NEG.PRS.1SG   fear-CN   be.PST2.3SG

     'If I **had studied** for the exam, I would not fear the teacher.'

References

Bhatt, R. and R. Pancheva. 2006. Conditionals. In: Everaert, M. and H. van Riernsdijk (eds.). *The Blackwell Companion to Syntax, Vol. I.* Blackwell: 638-687.

Iatridou, S. 1991. *Topics in Conditionals.* Ph.D. thesis. Cambridge, MA: MIT.

Iatridou, S. 1994. On the contribution of conditional *then.* In: *Natural Language Semantics*, Vol. 2, 171-200.

Iatridou, S. 2000. The Grammatical Ingredients of Counterfactuality. In: *Linguistic Inquiry*, Vol. 31, No. 2, 231-270.

Kratzer, A. 1986. Conditionals. In: Farley A.M., Farley P.T., and K.-E. McCullough. (eds.). *CLS (Chicago Linguistic Society) 22: Papers from the Parasession on Pragmatics and Grammatical Theory.* Chicago: University of Chicago, 1-15.

Mordashova, D. 2016. *Evidentiality and analytic forms "ə̂l'ə̂"/"ə̂lə̂n" in Western Mari.* Ms., Lomonosov Moscow State University.

Riese, T. 1984. The Conditional Sentence in the Ugrian, Permian and Volgaic Languages. In: Rédei, K. (ed.). *Studia Uralica. Veröffentlichungen des Instituts für Finno-Ugristik der Universität Wien, Band 3.* Wien: Verband der wissenschaftlichen Gesellschaften Österreichs (VWGÖ).

Stephenson, T. 2007. *Towards a theory of subjective meaning.* Ph.D. thesis. Cambridge, MA: MIT.

Grammaticalization of completive in Tupí-Guaraní revisited

Dmitry Gerasimov

Many Tupí-Guaraní (TG) languages have a verbal suffix of 'completive' historically connected to the Proto-TG verb -*paβ* 'to finish'. Cognate suffixes are found in all branches of the subfamily, except Subgroup II, where TAME systems have been completely rebuilt under contact influence. A cross-linguistically common path of grammaticalization from 'finish' to completion [Heine & Kuteva 2002: 134-137] is generally assumed for the protolanguage.

The completive expresses universal quantification over absolutive argument (1-2) or over a semantic scale inherent to the predicate (3); in some, but not all, languages in question it can also be used in terminative meaning reminiscent of the source verb (4). Cf. [Thomas 2007] for the most detailed language-specific account.

Some TG languages, however, lack aforementioned suffix, instead employing a lexical universal quantifier which diachronically is a fossilized 3rd person form of the same phasal verb -*paβ* (5). [Jensen 1990: 148, 1998: 537] assumes that such languages have lost the original completive suffix and substituted it with a lexical item, effectively suggesting a kind of grammaticalization reversal.

Based on the observed variation within the subfamily, we propose a revisited, somewhat more complex scenario for the emergence of completive suffix in TG languages. In particular, we argue that:

(i) Despite its pervasiveness, the suffixal completive is not a proto-TG phenomenon, but represents a parallel development;

(ii) Those languages that lack a dedicated completive suffix haven't lost it: rather, they have never developed it in the first place and are thus closer to the proto-TG situation;

(iii) Most importantly, quantificational and terminative readings of completive markers result from two different grammaticalization processes: while the latter have evolved directly from the phasal verb, grammaticalization of the former involved universal quantifier like the one in (5) as an intermediate stage.

(iv) The first part of the above postulated diachronic evolution, from phasal verb to (nominal) universal quantifier is naturally expected given that quantificational expressions in TG languages have generally shifted in character from predicative to nominal [Vieira 1995; Queixalós 2006].

As an aside, we demonstrate how reconstruction of the diachrony of TG tense and aspect systems, shaped by an interaction of numerous relatively recent grammaticalization processes, could benefit from better understanding of affix ordering and combinatorial properties of verbal suffixes in modern languages — the topic that, in part due to a certain Eurocentric bias, is largely overlooked even in latest grammatical descriptions.

Examples:

Kamaiurá

(1a)   *o-mano-**pap***
       3a-die-compl
       'They all died'.

(1b)   *o-juka-**pap***
       3a-kill-compl
       'He killed everyone'.

Asurini do Tocantins

(2)   *o-Ø-eraa-**pam***   *maʔesiroa*   *toria.*
       3a-3-take-compl   thing   civilized
       'The Brazilians took all the things'.

Arawete

(3)   *te-kutʃaha-pa*   *didi*   *he*   *Ø-ha*
        1sg-study-compl   after   I   rel-go
        'When I am finished with my studies, I will go'.

Paraguayan Guaraní

(4a)   *O-ky-pa*.
        3a-rain-compl
        'It stopped raining'. (can be uttered even if the rain can be expected to resume any minute now)

Mbyá Guaraní

(4b)   **o-ky-pa*
        3a-rain-compl
        Intended: 'It stopped raining'.

Urubu-Kaapor

(5)   *kaʔa*   *kɛ*   *upa*   *ŋã*   *Ø-wirɔk*   *ʔi*
        forest   obl   uq   people 3-clear   perf
        'People have cleared the forest entirely'.

Abbreviations:

1, 3 – person; a – cross-reference marker of the active series; compl – completive; obl – oblique; perf – perfect; rel – relational; sg – singular; uq – universal quantifier.

References

Heine & Kuteva 2002 — B. Heine, T. Kuteva. World lexicon of grammaticalization. Cambridge: Cambridge University Press, 2002.

Jensen 1990 — Ch. Jensen. Cross-referencing changes in some Tupí-Guaraní languages // D. L. Payne (eds.). *Amazonian linguistics: Studies in the Lowland South American Languages*. Austin, TX: University of Texas Press, 1990. Pp. 117–158.

Jensen 1988 — Ch. Jensen. Comparative Tupí-Guaraní morphosyntax // D. Derbyshire, G. Pullum (eds.). *Handbook of Amazonian Languages*, Vol. IV. Berlin: Mouton de Gruyter, 1998. Pp. 487–618.

Queixalós 2006 — F. Queixalós. The primacy and fate of predicativity in Tupi-Guarani // X. Lois, V. Vapnarsky (eds.). *Lexical categories and root classes in Amerindian languages*. Bern: Peter Lang, 2006. Pp. 249–287.

Thomas 2007 — G. Thomas. Quantification, completive aspect and degree modification in Mbyá // A. Deal (ed.). *Proceedings of Semantics of Understudied Languages of the Americas 4*. Amherst: UMass, 2007. Pp. 291–310.

Vieira 1995 — M. D. Vieira. The expression of quantificational notions in Asurini do Trocará: Evidence against the universality of determiner quantification // E. Bach, E. Jelinek, A. Kratzer, B. H. Partee (eds.). *Quantification in natural languages*. 1995. Pp. 67–85.

The diachronic transformation of {-mAK} into {-mA} in genitive-possessive agreement contexts in Turkish

Duygu Göksu
(Boğaziçi University)

In Modern Turkish (MT: early 20C-present), in embedded infinitival clauses there are two subordinators {-mAK} and {-mA}. The verbs are argued to select for the structure formed by {-mA} in a subject-verb agreement context and the one formed by {-mAK} in PRO-control constructions (Kural, 1993)(1a-b).

(1)a. Ben$_i$ [PRO$_i$ araba kullan-**mak**]   isti-yor-um.
     I   car   use -mAK want-IMPERF-1.SG
    'I want to use a car.'
   b. Ayşe [ben-im   araba kullan-**ma**]-m-ı   isti-yor-Ø.
     Ayse I -GEN car   use   -mA -POSS.1SG-ACC want-IMPERF-3.SG
     'Ayse wants me to use the car."

   Today, generally [-mAjI/-mAjA] surface in accusative and dative case marked PRO-control subordinations while the elder speakers might use [-mAɣI/-mAɣA] in these contexts (2a-b).

(2) a. Ben$_i$ [PRO$_i$ araba kullan-**mak/-ma]-(y)ı**   sev-iyor-um. *(-maɣı > -majı)*
      I   car   use -mAK/-mA-ACC like-IMPERF-1.SG
     'I like using a car.'
   b. Ben$_i$ [PRO$_i$ araba kullan-**mak/-ma]-(y)a**   bayıl-ıyor-um. *(-maɣa > -maja)*
     I   car   use   -mAK/-mA-DAT love-IMPERF-1.SG
     'I love using a car.'

This paper argues that what on the surface looks like a change in the phonological shape of a single morpheme (mAɣ>mAj) is actually one of the recent steps of a grammaticalization process. The two markers have been recorded to coexist in Old Anatolian (OAT) and Ottoman Turkish (OT). The data analyzed are taken from a dictionary of affixes that consists of excerpts from literary texts dating back to 13C-19C (Aksoy & Dilçin, 1996). The dictionary is organized as a list of examples comparing the MT forms of affixes with their older versions. The data seem to support the following claims:
{-mAK} used to be compatible with both a pro (3) and a PRO (4) subject and bear POSS in agreement (AGR) with genitive subject (if overt).

(3) Eyit-miş-ler-dir   kim **İsa-nın   doğ-mağ-ı**   Efsertis
    say-EVID-3.PL-MOD that İsa-GEN be born-mAK-POSS.3.SG Efsertis

    melikliğ-in-in   kırk iki yıl geç-tiğ-in-den   sonra i-di-∅
    kingdom-CM-GEN fourty two year past-NOM-POSS.3.SG after be-PST-3.SG
    'It is told that the birth of Jesus was 42 years after the Efsertis Kingdom.'
                                                                          (14C)
(4) pro$_i$ Var-ır-dı-∅   ay-da   bir gez **PRO$_i$ gör-meğ-in-e**
        come-AOR-PST-3.SG month-LOC one time   see-mAK-POSS.3.SG-DAT
      '(He) used to come once a month to see (her).'
                                                                          (14C)
The MT forms of the examples above are as follows:
(5) … **İsa-nın   doğ-ma-sı** …
     Jesus-GEN be.born-mA-POSS.3.SG
     'The birth of Jesus'

(6) **PRO gör-me-ye** gel-ir-di-∅
       see-mA-DAT come-AOR-PST-3.SG
  '(He used to come to see (her).'

Two changes are observed here:
i. {-mAK} used to be the subordinator in pro-AGR and PRO-AGR contexts,
ii. MT's PRO-no AGR structures used to be PRO-AGR.
Comparison of the data from OAT, OT and MT for other subjects are summarized here:

The co-existence of (7a) and (7b) in MT nowadays provides further evidence for these hypotheses.
(7) a. PRO_Arb kitap oku-**mak**   zor.
     Book   read-mAK difficult.

   b. Kitap PRO_Arb oku-**mA**-sI   zor. (preferred by elders)
     Book   read-mA-POSS.3.SG difficult
     'It is difficult to read a book.'

    The paper concludes that this process should not be analyzed as a purely phonological change of {-mAK} resulting in {-mA} contrary to what has been argued in the literature (Banguoglu, 1990), but as a diachronic change in syntactic compatibility of a morpheme.

References

Aksoy, Ö. A. & Dilçin, D. (1996). *Tarama Sözlüğü VII: Ekler*. TDK yayınları: Ankara.

Banguoğlu, T. (1990). *Türçenin Grameri,* TDK yayınları: Ankara.

Bayraktar, N. (2004). *Türkçede Fiilimsiler*, TDK yayınları: Ankara.

Boyd, C. (1842). *The Turkish Interpreter or New Grammar of The Turkish Language*, Smith Elder: London.

Ediskun, H. (1985). *Türk Dilbilgisi: Ses Bilgisi, Biçim Bilgisi, Cümle bilgisi,* Remzi Kitabevi.

Gülsevin, G. (1997). *Eski Anadolu Türkçesinde Ekler*, TDK Yayınları: Ankara.

Kanar, M. (2011). *Eski Anadolu Türkçesi Sözlüğü,* Say Yayınları: Ankara.

Korkmaz, Z. (1994). *Türkçede Eklerin Kullanılış Şekilleri ve Ek Kalıplaşması Olayları,* TDK yayınları: Ankara.

Korkmaz, Z. (2009). *Türkiye Türkçesi Grameri Şekil Bilgisi*, TDK yayınları: Ankara.

Kural, M. (1993). V-to(I-to)-C in Turkish. *UCLA: Occasional Papers in Linguistics*, 11, 17-55.

Raposo, E. (1987). Case Theory and Infl-to-Comp: The Inflected Infinitive in European Portuguese. *Linguistic Inquiry,* 18(1), 85-109.

Yılmaz, Y. (2012). {-mAk} ve {-mA} eklerinin hal ekleriyle münasebeti, *Turkish Studies*, 7(2), 1267-1280.

A genre-based study of ellipses: A syntactic representation

Anissa Hamza
(University of Strasbourg)

Given the diversity of its features, ellipsis brings about many questions concerning the complexity of its nature and recognition among other language facts. *Ellipsis* is generally defined as the absence of one or several segments of discourse within a sentence whose meaning is not affected by this absence. Despite its invisibility, it remains pivotal to the study of language. The current contribution proposes to focus on the influence that the *genre* of the texts can have on the syntactic structures of ellipses, as part of an ongoing research aiming at exploring the possibility of devising some automated tools in order firstly to detect ellipses and secondly to try and find means of solving the translation problems raised by the absence of a segment in a sentence.

Although this ubiquitous fact of language may go unnoticed by its users, the ellipsis site has a syntactic structure since, when investigated, a gap is generally apparent in the sentence structure (Hardt 1993, Lobeck 1995). Using this syntactical approach, it has been possible to define different types of ellipsis according to the grammatical category of the ellipted segment, the position of the syntactic gap and its relation to the antecedent – linguistically or contextually recoverable. It is under this hypothesis that this research is conducted.

This study is based on the exploration of *genre*-based bilingual corpora of English and French data. Different types of discourse are included within the corpus under study: literary, institutional, journalistic, scientific and daily discourse. The diversity in the corpus illustrates how the categories of ellipses are manifested in each genre which triggers the question of the possible influence of the genre on the syntactic behaviour of the phenomenon. For the current contribution, I suggest analyzing the elliptical occurrences in three types of discourse: journalistic (*New York Times*), literary (contemporary novels), and conversational-oral discourse (subtitles of TV series).

As can be observed in the corpus, and regarding the characteristics of the types of discourse, the elliptical occurrences seem quantitatively and qualitatively highly influenced. Indeed, some types of ellipses – as it is the case for the ellipsis of the subject and the auxiliary together (1) – seem frequent in the conversational discourse, but become rare in the journalistic discourse, either for syntactic and/or stylistic reasons within the original texts, or to fit the constraints of the audio-visual translation within the translated equivalent texts.

(1) Ø Enjoying the game?
   Ø Pinch anything?

In the present paper, I will briefly present some issues related to the theoretical framework in order to define the characteristics of syntactic ellipses. Then, I will demonstrate how the same type of ellipsis manifests syntactic adjustments to meet the *genre* of discourse, before dealing with the impact these "irregularities" have within the fields of NLP and machine translation.

Selected references
Guillemin-Flescher, J. 1981. Syntaxe comparée du français et de l'anglais : problèmes de traduction. Paris, France: Ophrys.
Hardt, D, 1993, Verb Phrase Ellipsis: Form, Meaning and Processing, PhD dissertation. USA, University of Pennsylvania.
Lobeck, A, 1995. Ellipsis: Functional Heads, Licensing and Identification. New York, Oxford University Press.
McShane, M, J, 2005, A Theory of Ellipsis. Oxford, University Press.
Merchant, J, 2001, The Syntax of Silence. Oxford, University Press.
Quirk et al.,1985, A Comprehensive Grammar of the English Language. London & New York: Longman.

Ringbom, H, 1994, Contrastive Analysis. In R. E. Asher and J. M. Y. Simpson (eds), Encyclopedia of Linguistics, Vol. 2. Oxford: Pergamon Press, 737-742.

Van Roey, J. 1990, French-English Contrastive Lexicology: An introduction. Louvain-la-Neuve: Peeters.

Oroitz Jauregi & Irantzu Epelde

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Reduce, reuse and recycle: The development of complex conjunctions and discourse markers in Estonian

Anni Jürine & Külli Habicht
(University of Tartu)

The present study concerns the development of complex discourse markers in Estonian. In this study, we look at three complex items *nii et* 'so + that', *nii nagu* 'so + as', and *nii kui* 'so + as', all of which consist of two elements – the pro-adverb *nii* 'so', and a simple conjunction. As such, these items function as freely combined items as well as complex grammatical/pragmatic units. All of the studied items can be analyzed as both in contemporary Estonian.

The present study observes synchronic variation, which is taken to reflect the diachronic development of these items (cf. Heine 1999: 179). The research questions are the following:

– What are the stages of development of these complex pragmatic markers?

– What contributes to the reanalysis of freely combined items to complex units?

– What is the role of subjectification in this process?

– Is there an association between the functional and formal variation of these items?

The development of complex conjunctions and discourse markers involves grammaticalization as well as pragmaticalization and (inter)subjectification (e.g. Heine, Kuteva 2002; Traugott 2003; Cuyckens, Davidse, Vandelanotte 2010). Such clausal processes have been investigated in other languages as well (see e.g. Kortmann 1998; Stukker, Sanders 2012; Łęcki, Nykiel 2017). The present study is a corpus analysis. The data come from the corpus of Estonian web pages etTenTen (270 million tokens). The data (400 examples of each item) are manually coded, and the analysis is based on the following factors – function, position in the sentence, and formal variants.

The results indicate that the development of complex discourse markers has an intermediate stage whereby formerly freely combined items (Ex. 1) are reanalyzed as complex conjunctions (Ex. 2). The data suggest that functional change is associated with formal changes. As complex items, the studied items tend to manifest univerbation (Ex. 2) and reduction (Ex. 3). The stage of complex conjunction is followed by a shift to the sentence initial position, where – accompanied by a semantic change and the development of subjective readings – the complex items come to connect larger parts of discourse and become discourse markers (Ex. 3).

Ex. 1   *Lisaks peavad tarbijad olema   võrdselt koheldud ja esindatud **nii, et**   nende   huvid   oleksid tõhusalt kaitstud.* [www.bioneer.ee]

'Moreover, consumers should be treated equally and represented **in such a manner that** their interests would be well protected'

Ex. 2   *NB!Parkla on lükkamata, **niiet** auto tuleb jätta maja juurde.* [www.kalale.ee]
'Attention! The parking lot has not been plowed, **so** the cars should be left beside the house'

Ex. 3   ***Niet** palun, ole hea ja too see TsK § välja, mida sa väidad näinud olevat.* [www.via.ee]
'**So** please be so kind and show me the consumer law paragraph that you claim to have   seen'

As such, the development of complex discourse markers is an instance of 'recycling grammar' (see Jürine, Habicht *in press*), i.e. a type of grammatical change, whereby (simple) grammatical items, when used in combination with lexical items, form a holistic unit, and are as such re-used to form new (complex) grammatical and/or pragmatic units.

References:

Cuyckens, H., Davidse K., Vandelanotte L. 2010. Introduction. *Subjectification, intersubjectification and grammaticalization*. Berlin: Mouton de Gruyter, pp.1–28.

Heine, B. 1999. Grammaticalization chains across languages: An example from Khoisan. *Reconstructing grammar. Comparative linguistics and grammaticalization*. Typological Studies in Language 43, pp 177–200.

Heine, B. and Kuteva, T. 2002. *World lexicon of grammaticalization*. Cambridge: Cambridge University Press.

Jürine, A. and Habicht, K. (*in press*). Grammaticalization of complex items: Estonian *nii et* 'so that'. *Journal of Estonian and Finno-Ugric Linguistics*.

Kortmann, B., 1998. Adverbial subordinators in the languages of Europe. *Empirical Approaches to Language Typology*, pp.457–561.

Łęcki, A.M. and Nykiel, J., 2017. Grammaticalization of the English adverbial subordinator *in order that*. *Aspects of Grammaticalization:(Inter) Subjectification and Directionality*, 305, pp. 237–256.

Stukker, N. and Sanders, T., 2012. Subjectivity and prototype structure in causal connectives: A cross-linguistic perspective. *Journal of Pragmatics*, 44(2), pp.169–190.

Traugott, E.C. 2003. From subjectification to intersubjectification. *Motives for a language change*. Cambridge: Cambridge University Press, pp. 124–139.

Considering the effects of Kerman Dashtab variant rhythm on Kerman Dashtab instrumental folk music rhythm

Ezatollah Kalantari Khandani & Nafiseh Taghva
(Payame Noor University, Iran & Zahedan Azad University)

Investigating the language and music relationship began over the past few years with cognitive psychologists (Patel, 2010; Zbikowski, 2002; Snyder, 2000), while some researchers studied more general issues of music perception and production (Levitin, 2006; Huron, 2006). As rhythm is one of the most important shared features between language and music (Patel, 2010; Nathan, 2008; Donegan and Nathan, 2014; Chatzikyriakidis, 2013), this study was done on the acoustic investigation of rhythmic features of speech and musical melodies of a less well-known variant of Farsi language,

named Kerman Dashtab variant. It is one of a number of Kerman variants spoken in the west of Kerman, a province in south-east of Iran. To determine the rhythmic class of languages nPVI (1), normalized Pairwise Variability Index, was introduced by Grabe and Low (2002). The nPVI calculats the absolute value of the difference between each successive pair of durations in a sequence and it classify rhythm of languages in two groups of syllable-timed and stress-timed languages (Patel, 2010; Grabe and Low, 2002; Ladefoged and Johnson, 2011). Since the nPVI's normalization normalize cross cultural differences, it was used to compare the linguistic and musical rhythm of some cultures (Patel, 2010) and it was concluded that the linguistic rhythm of each culture influences the musical rhythm of that culture.

(1)

$$\text{nPVI} = \frac{100}{m-1} \times \sum_{k=1}^{m-1} \left| \frac{d_k - d_{k+1}}{\frac{d_k + d_{k+1}}{2}} \right|$$

Where *m* is the number of vocalic intervals in an utterance or duration of musical tones and d_k is the duration of the kth interval.

In this research nPVI is used to show the influence of Kerman Dashtab variant on Kerman Dashtab instrumental folk music. Thus, 40 declarative Kerman Dashtab variant sentences were read by three native speakers of the mentioned variant in a silent room which were recorded by Shore Microphone in Praat software. Besides, 30 music melodies of Kerman Dashtab folk instrumental music have been chosen. Afterward, boundaries of vocalic intervals of the variant and duration of music tones were determined by TextGrids and their variability are measured by nPVI (Figure 1). Finally, the outcomes of this study were compared to the existed nPVI of Farsi language (Abolhasani Zadeh et al. 2013) as an example of syllable-timed languages and English (Grabe and Low, 2002) as a true representative of stress-timed languages as well as nPVIs' of other cultures (Patel, 2010). The results of the study demonstrated that although Farsi nPVI and Persian musical nPVI (Abolhasani Zadeh et al, 2013; Taghva and Golshan, 2015) are placed among syllable-timed languages, Kerman Dashtab variant nPVI and its folk instrumental music are located somewhere between syllable-timed language such as Farsi and stress-timed language such as English. Furthermore, it confirms that both of the Kerman Dashtab variant and its music rhythm are very close to Catalan and Polish language and music rhythm. Hence, it can be concluded that Kerman Dashtab folk instrumental music rhythm reflects Kerman Dashtab variant rhythm.
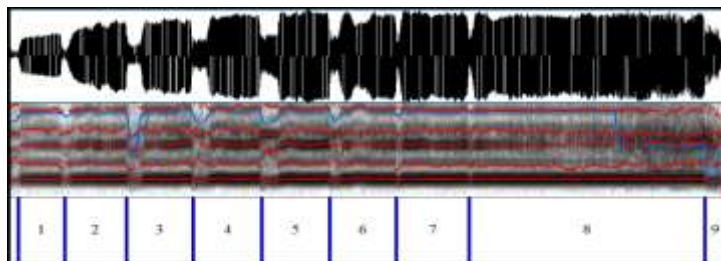
Figure 1: A TextGrid example of Kerman Dashtab folk instrumental music.

References

Abolhasani Zadeh, V. Taghva N., Sharifi Moghadam, A. and Golshan, A. (2013). The effect of Farsi language rhythm on Iranian traditional non metric instrumental music. *Aion-linguistica*. Spain.

Chatzikyriakidis, S. (2013). Underspecification Restrictions in Poly-Rhythmic Processing. in *Language and Music as Mechanisms for Interaction.*, Ruth Kempson and Martin Orwin. London: Academic Publishers.

Donegan, P. & Nathan, G. (2014). Natural Phonology and Sound Change. in *The Oxford Handbook of Historical Phonology*, Patrick Honeybone and Joseph Salmons. Oxford: Oxford University Press.

Grabe, E., & Low, E. L. (2002). Durational Variability in Speech and the Rhythm Class Hypothesis . *In C. Gussenhoven & N. Warner, Laboratory phonology.* Berlin: Mouton de Gruyter, 515–546.

Huron, D. (2006). *Sweet Anticipation: Music and the Psychology of Expectation*. Cambridge, Mass.: MIT Press.

Ladefoged, P. & Johnson, K. (2011). *Course in Phonetics (6th ed.)*. Wadsworth: Boston, 252-253.

Levitin, D.J. (2006). *This is Your Brain on Music*. New York: Dutton.

Nathan, G. S. (2008). *Phonology: A Cognitive Grammar Introduction*. Amsterdam/Philadelphia: Benjamins.

Patel A, D. (2010). *Music, Language, and the Brain*. New York: Oxford University Press.

Snyder, B. (2000). *Music and Memory: An Introduction*. Cambridge, Mass.: MIT Press.

Taghva, N. and Golshan, A. (2015). Effects of Persian Language Rhythm on Iranian Traditional Instrumental Non-metric Music Rhythm. *Paper presented at 13th international Cognitive Linguistic Conference.* United Kingdom, Newcastle**.**

Zbikowski, L.M. (2002). *Conceptualizing Music: Cognitive Structure, Theory and Analysis*. Oxford: Oxford University Press.

Matter loans and verb integration: the case of Mosetén and British Cypriot Greek

Petros Karatsareas & Jeanette Sakel

(University of Westminster & UWE Bristol)

Verbal loans are often matter loans: morpho-phonological forms from language A used in language B (Matras & Sakel 2007). They can undergo morphological integration into the system of B, appear with language B light verbs or they may be code-switched into language B in their original language A form, without integration (Wohlgemuth 2009).

Languages employ different means by which these elements are integrated, yet verbal loanverb integration also depends on the level of bilingualism and language dominance across contact situations.

We compare the integration of verbal matter loans in two contact situations of intense bilingualism: (a) the heritage language British Cypriot Greek (BCG) (Christodoulou-Pipis 1991) in contact with English, and (b) the South American indigenous language Mosetén (Sakel 2004) in contact with the coloniser language Spanish.

BCG employs two strategies of loanword adaptation: speakers belonging to the Greek- dominant first generation adapt all English loanwords into the phonological and morphological system of BCG. Speakers belonging to the English-dominant second and third generations resort to a light verb strategy leaving the formal properties of English verbs intact, retaining their original phonology and without any morphological adaptation.

In Mosetén, most speakers are Spanish-dominant, yet independent of their bilingual status and language dominance, Spanish verbal elements are morphologically integrated into the Mosetén system through the verbal classification system of the language.

We show that language-internal mechanisms and structures in the languages in contact have to be looked at in combination with the level of bilingualism and language dominance in order to assess the different types of matter replication found in verbal loans.

References

Christodoulou-Pipis, Irina. 1991. *Greek Outside Greece: Language Use by Greek-Cypriots in Britain*. Nicosia: Diaspora Books.

Matras, Yaron & Jeanette Sakel. 2007. *Grammatical Borrowing in Cross- linguistic Perspective*. Berlin: Mouton de Gruyter.

Sakel, Jeanette. 2004. *A grammar of Mosetén*. Berlin: Mouton de Gruyter. Wohlgemuth, Jan. 2009. *A Typology of Verbal Borrowings*. Berlin: Mouton de Gruyter.

The grammaticalization of avertive and proximative meanings in Hindi

Liudmila Khokhlova & Boris Zakharyin
(Moscow State University)

Many scholars have described functioning of resultatives in Hindi - (Butt 1995; Kachru 1980; Khokhlova and Singh 2007; Liperovskiy 1984; Masica 1991; Montaut 2004, et al.), but antiresultatives (Plungian 2001) in this language have not attracted enough attention of linguists. This paper deals with avertive and proximative meanings of Hindi antiresultatives.

Any telic process may be either volitional or non-volitional; if volitional, the antiresultative phase of it implies the Agent's failure in attempts to reach the target, that is, avertive meaning. If non-volitional, the antiresultative has proximative meaning, that is, denotes unpredictable discontinuity of the process on its way to terminal point.

The avertive meanings are expressed in Hindi either by tense-aspect forms of the pluperfect and aorist or by special syntactic constructions denoting the infringed resultative phase. Pluperfect usually denotes cancellation of the result of completed action, while aorist signifies that the terminal point has not been reached. Almost all scholars – e.g., (Hook 1974; Nespital 1997; Montaut 2016, et al.) - are of the opinion that the aorist forms generated from simple verbs are compatible with some arbitrary endpoint and may be followed by a culmination-cancelling clause:

mai^n-ne raam   ko   kuch   pais-e   di-y-e
I-Erg Ram   Dat   some   money-M/Pl   give-Aor. M/Pl
'I gave/ tried to give some money to Ram'

Contrary to this, the aorist forms generated from compound verbs (sequences of the main verb conveying the basic meaning and the so called 'vector' or 'polar' verbs, conveying attitudinal and aspectual specifications) imply that the event has culminated in its natural endpoint:

mai^n-ne raam   ko   kuch   pais-e   de   di-y-e
I-Erg Ram   Dat   some   money-M/Pl   √give   give-Aor. M/Pl
'I gave some money to Ram (and he took the money)'

According to Kothari and Arunachalam (2009), the compound verbs in certain contexts may also be compatible with an arbitrary endpoint. It will be shown in our paper that if the theme of the utterance is incremental, the aorist forms of compound verbs may indicate only partial, but not complete change of the object state – this happens when the speaker considers the goal as achieved:

mai^n-ne	*yah*	*seb*	*khaa*	*liy-aa*	*baakii*	*hiss-aa*
I-Erg	this	apple-M	√eat	take-Aor.M/Sg	left	part-M/Sg

tumhaar-aa	*hai*
your-M/Sg	be-Pres.3.Sg

'I have partaken of the apple, the residue is yours'

There also exist syntactic constructions in Hindi that imply exclusively avertive meanings. Those are: (1) combinations of the perfective participles from transitive stems with finite forms of their intransitive correlates; (2) complex sentences with the intension marker *vālā* inside the first clause and *ki-* conjunction opening the second clause; 3) constructions with reduplicated converbs and finite forms of *hārnā* 'to be defeated'.

Proximative meanings are denoted by combinations of reduplicated imperfective participles from the main verbs with *bacnā* 'to be saved'.

Both the avertive and proximative meanings may also be signified by combinations of reduplicated imperfective participles with finite forms of *rahnā* 'to stay'.

References

Butt, Miriam 1995. The Structure of Complex Predicates in Urdu, Stanford University Press.

Dahl, Östen 1981. On the definition of the telic-atelic (bounded-unbounded) distinction // Ph.J. Tedeschi, A. Zaenen (eds). Syntax and Semantics, vol.14: Tense and Aspect, New York, Academic press: 79-90.

Hook, Peter 1974. The Compound verb in Hindi, The University of Michigan.

Kachru, Yamuna 1980. Aspects of Hindi Grammar, New Delhi, Manohar publications.

Khokhlova, Liudmila and Singh, Charanjit 2007. Resultative Constructions with Overt Agent/Possessor in Western NIA Languages (Hindi-Urdu, Punjabi, Gujarati, Rajasthani. Proceedings of the Moscow conference ICOSALL 5 (July 2003), Old and New Perspectives on South Asian Languages. Grammar and Semantics. Ed. Colin Masica. Delhi, Motilal Banarsidass.

Kothari, Anubha & Arunachalam, Sudha 2009. Pragmatics and Gradience in Hindi Perfectives, South Asian Languages Analysis Roundtable XXVIII: Denton, TX – Oct -9.
http://blogs.bu.edu/sarunach/files/2011/05/KothariArunachalam2009_HindiPerfectives.pdf

Liperovskiy, Vladimir 1984. Verb in Hindi Language, Moscow, Nauka (In Russian).

Masica, Colin.1991. The Indo-Aryan Languages, Cambridge, Cambridge University Press.

Montaut, Annie 2004. A Grammar of Hindi, LINCOM Studies in Indo-European Linguistics.

Nespital, Helmut 1997. Dictionary of Hindi verbs, Allahabad, Lok Bharati Prakashan.

Plungian, Vladimir 2001. Antiresultative: Before and after the Result, Studies in Grammatical Theory, part 1, Verbal Categories, Moscow: 50 - 88 (in Russian).

What is behind Differential Object Marking in Catalan?

Marta Khouja

(Centre de lingüística teòrica, CLT, and Universitat autònoma de Barcelona, UAB)

1. Goals

The goal of this talk is twofold: empirically, we provide some data from the microparametric view within Romance languages (Balearic Catalan variety) concerning Differential Object Marking (DOM) in Clitic Dislocation (CLD); theoretically, we propose an analysis for DOM under Kayne's (1994) and López's (2012) system of prepositions as functional categories (K), which permits to explain why the emergence of this phenomenon is systematic in a syntactic configuration like CLLD & CLRD.

2. Introduction & data

It has been widely claimed that the reasons why DOs are overtly marked are related to the animacy and definiteness scales. Nevertheless, if we analyze thoroughly the syntactic conditions in which DOM can or, more interestingly, have to be activated this generalization cannot be assumed anymore.

Although topicality is argued to be a relevant condition for the DOM to appear, it seems that not any kind of topic allows for the accusative marking (cf. Hanging Topics), but rather Clitic Dislocation (CLLD and CLRD) configurations turns out to be the dedicated *locus* for DOM objects and therefore we assume *a* to be a left periphery phenomenon.

Unlike Spanish, the data from Balearic Catalan (first noticed by Moll 1975, Escandell-Vidal 2007, 2009, a.o.) shows that DOs can be marked even if they encode properties not generally associated with object marking, such as being non-human or indefinite:

> (1) a. No la conec, **a** la Marta   (Balearic Catalan)
>   not cl.acc meet, ACC the Marta
>   'I don't know her, Marta'
>
>   b. No el necessito, **a**(n) aquest llibre   (Balearic Catalan)
>   not cl.acc need,   ACC   this book
>   'I don't need it, this book'

Crucially, the same distribution of DOM is not grammatical for the speakers when the DO remains *in situ* (2). In this case, standard Catalan and Balearic behave alike (i.e., only marked with personal and relative pronouns):

> (2) a. No conec (****a)** na Marta   b. No necessito **(*a)** aquest llibre
>   not meet   ACC the Marta   not   need   ACC   this book
>   'I don't know Marta'   'I don't need this book'

The same occurs if the dislocated element doesn't trigger the presence of a clitic (cf. focus configurations: *LA MARTA*, he vist (no la Maria)); therefore, we should take this element to be key for the DOM. This condition agrees with the Kayne's Generalization, which states that clitic doubling can occur only if the DO is marked.

Additionally, as some authors have noted (Berretta 1989, Jones 1995, Imemmolo 2010, Belletti&Manetti 2016, a.o.), other Romance varieties such as some Italian dialects (3, 4) seem to exhibit a similar pattern in DOM configurations:

> (3) a.*Non mi convince **a** me questo   (Sicilian)
>   'That doesn't convince me'
>   b. **A** me, non mi convince questo
>
> (4) a. *Appo invitadu (**a**) su preideru a su matrimoniu*   (Sardinian)
>   'I invited the priest to the wedding'
>   b.***A** su'preideru, invitadu l'as a su matrimoniu?*

3. the Analysis

The data above suggests that Catalan DOM cannot be accounted for by a theory of DOM that only appeals to animacy and definiteness of the DO, which are neither sufficient nor exclusive features. Instead, they could be taken to provide further support for an account of DOM as a functional preposition which is the spell-out of a functional Case projection (K) (Kayne 1994; López 2012). As we pointed out, the clitic is key for the configuration (Kayne's Generalization). The clitic checks its accusative case in its base position in *v*P. As a result, the doubled SD has to move out from its *in situ* position to a projection above *v*P in order to check case.

Accordingly, one possible extension to this analysis could be the cases where *de* (partitive case) acts as a case marking for indefinite DOs not only in Catalan but also in Italian and French: *No en necessito, de llibres.* We give some arguments for a similar analysis as the one presented for (1), that is to say, it can be assumed a similar configuration with regard to the function of the preposition.

4. Conclusions

We have shown that data from Balearic Catalan (and Italian) may rethink the parameters of DOM generally established in terms of semantic scales. Instead, our assumption is that DOM is the morphological realization of a projection (KP) needed in a certain syntactic configuration, where a correlation emerges between DOM and the presence of a clitic (CLD). Moreover, our analysis of DOM in CLLD and CLRD constructions based on a CL Doubling structure receives further support from Rio de la Plata Spanish and allows us to discuss some interesting questions about the nature of peripheral phenomena.

Lexical borrowing in the world's languages: A quantitative study of the sociolinguistic and morphosyntactic factors

Ezequiel Koile, Maya Inbar, Damian Blasi, & Eitan Grossman
(Max Planck Institute for the Science of Human History; Hebrew University of Jerusalem; University of Zurich and Max Planck Institute for the Science of Human History; & Hebrew University of Jerusalem)

Lexical borrowing plays an important role in the evolution of languages. Each contact situation among different speech communities can potentially lead to change in the languages involved. What conditions shape the borrowing of lexical items, and to what extent? Is lexical borrowing determined by the type of social interaction between the speech communities? What role do the morphosyntactic properties of the languages involved play in the borrowing process? Our goal is to estimate the contribution of these and other factors using quantitative tools.

The World Loanword Database (WOLD, Haspelmath & Tadmor 2009) is a cross-linguistically comparable set of 1460 meanings and their lexicalizations in 41 languages from all over the world. This project has generated a massive dataset particularly useful for a study aiming to tease apart the determining factors of lexical borrowing using quantitative methods. While the authors of WOLD have presented preliminary findings regarding universals of lexical borrowing (Tadmor 2009), any claim on the magnitude and the extent of the relevant factors are not feasible without proper statistical methods.

This work addresses this lacuna by conducting a statistical analysis of the WOLD database, with the aim of determining which factors define the lexemes to be borrowed. A thorough statistical analysis of the database has been essential for answering the questions posed above, as the precise correlations enable one to tease apart the different contributing factors and the extent of their contribution. By implementing a mixed-effects model, we introduce the contribution of parameters such as the area in which a language is spoken, the semantic field of each lexical item, the morphosyntactic properties of the languages involved, and different sociolinguistic aspects in the borrowability of a given lexical item. On the basis of the model we draw a clearer picture of the dependency between factors, with the aim of accounting for the observed variation in borrowability and borrowing patterns across languages.

References

Haspelmath, Martin & Tadmor, Uri (eds.). 2009. World Loanword Database. Leipzig: Max Planck Institute for Evolutionary Anthropology. (Available online at http://wold.clld.org, Accessed on 2016-02-15.)

Haspelmath, Martin, & Tadmor, Uri. 2009. The loanword typology project and the world loanword database. In: Haspelmath, Martin & Tadmor, Uri (eds.), Loanwords in the world's languages: A comparative handbook, 1-34. Berlin: De Gruyter Mouton.

Haspelmath, Martin. 2009. Lexical borrowing: Concepts and issues. In: Martin

Haspelmath & Uri Tadmor (eds.), Loanwords in the worlds languages: A comparative handbook, 35-54. Berlin: De Gruyter Mouton.

Tadmor, Uri. 2009. Loanwords in the worlds languages: Findings and results. In: Haspelmath, Martin & Tadmor, Uri (eds.), Loanwords in the worlds languages: A comparative handbook, 55-75. Berlin: De Gruyter Mouton.

Leonid Kulikov, Peter Alexander Kerkhof, Cynthia Johnson, Roland Pooth, & Laura Bruno

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Polish Involuntary State Constructions: An explanation of the limitations on the adverbial modification

Anna Malicka-Kleparska
(The John Paul II Catholic University of Lublin)

We aim to account for inconsistencies in the grammaticality of Involuntary State Constructions in Polish with specific types of adverbial modification. In particular, interdependencies between the (un)grammaticality of spatiotemporal adverbial phrases and the overt realization of the Dative argument will be targeted.

Rivero et al. (2010) (see Gołąb 1975, 2010, Dąbrowska 1997, Dziwirek 1994, Wierzbicka 1988, Rivero et al. 2010, Rivero and Arregui 2012, Cichosz 2012) include under this label the structures in

Polish whose logical subjects are not in control of the events in which they participate, as the example below illustrates:

1. *Tańczyło   nam   się   dobrze.*
   dance-PST.3rd.SG.N   we-DAT.PL   REFL   well
   'We enjoyed dancing.'

  ISCs have a number of interesting characteristic properties: They all lack Nominative subjects, but they may contain arguments in the Dative case which function as logical subjects. The ISC clauses specify dispositions of logical subjects with respect to the events identified in the clauses. Apart from the main lexical verb the ISC clause must contain a modifying element (see 2a, b). Without the modification the sentence is ungrammatical (2c). Only the manner modification is admitted if the Dative argument is present (2e, cf. 2f).

2.
   a) *Tańczyło   się   dobrze.*
      dance-PST.3rd. SG.N   REFL   well
      'Dancing was good.'
   b) *Tańczyło   się   do   rana.*
      dance-PST.3rd. SG.N   REFL   to   morning-GEN.SG
      'Dancing went on till morning.'
   c) **Tańczyło się.*
   d) **Tańczyło się nam.*
   e) *Tańczyło   się   nam   dobrze.*
      dance-PST.3rd. SG.N   REFL   us-DAT.PL   well
      'Dancing was good for us.'
   f) **Tańczyło się nam do rana.*

The sources dealing with Polish ISCs have not recorded so far that the manner modification is required if an overt Dative argument is specified in the sentence (2e), while spatiotemporal modifications are ungrammatical (3a) :

3.
   a) *Tańczyło   się   (*nam)   po   nocy.*
      dance-PST.3rd. SG.N   REFL   we-DAT.PL   at   night-GEN.Sg
      'Dancing took place at night.'

   We have to account for: 1) Ungramaticality of ISCs without any modification; 2) Grammaticality of ISCs with Dative participants and manner modification vs. 3) The ungrammaticality of ISCs with Dative participants and temporal/spatial modification; 4) The lack of control of the event by the sentient logical subject; 5) The imperfective aspect in ISCs in Polish.

   We argue that out-of-control reading of the applied argument situated in the High Applicative phrase is congruent with manner modification of a specific kind, i.e. only such manner modifiers appear in ISCs with Dative arguments which may be interpreted as out-of-control adverbial phrases. Consequently, Agent-oriented adverbs, like *ostrożnie* 'carefully', are inadmissible and so is spatiotemporal modification, which can be easily controlled by the participants.

   We believe that the adverbial modification in ISC clauses is required because of the presence in their semantics of the Generic operator (Krifka et al. 1995, Mari et al. 2013). The sentences without the Dative argument are generic statements, with arbitrary subjects and with verbs in the imperfective aspect. Thus ISCs without Datives would lack the restrictor: Arbitrary subjects cannot perform this

function as arbitrary reference cannot restrict: Consequently, the modifiying adverbs are required as restrictors.

References

Carlson, Gregory & Francis J. Pelletier (eds). 1995. *The generic book*. Chicago: University of Chicago Press.

Cichosz, Natalia. 2012. High Datives in Polish. Available at: /www.ucl.ac.uk/pals/research/linguistics/.../Cichosz_final (05.11.2016).

Dąbrowska, Ewa. 1997. *Cognitive semantics and the Polish Dative*. Berlin: Mouton de Gruyter.

Dziwirek, Katarzyna.1994. *Polish subjects. Outstanding dissertations in linguistics*. Jorge Hankamer (ed.), New York: Garland Publishing, Inc.

Farkas, Donka & Yoko Sugioka. 1983. Restrictive if/when clauses. *Linguistics and Philosophy* 6. 225–58.

Gołąb, Zbigniew. 1975. Endocentricity and endocentrization of verbal predicates: Illustrated with Latin and Slavic material. *General Linguistics* 15. 1–35.

Heim, Irene. 1982. *The semantics of definite and indefinite noun phrases*. Ph.D. dissertation, University of Massachusetts.

Krifka, Manfred, Francis Jeffrey Pelletier, Gregory Carlson, Alice ter Meulen, Goedehard Link & Gennaro Chierchia. 1995. Genericity: An introduction. In Gregory Carlson & Francis Jeffrey Pelletier (eds) *The generic book*, 1–124. Chicago: Chicago University Press.

Mari Alda, Claire Beyssade & Fabio Del Prete. 2013. Introduction. In Mari Alda, Claire Beyssade & Fabio Del Prete (eds) *Genericity*, 1–92. Oxford: Oxford University Press.

Pylkkänen, Liina. 2008. *Introducing arguments*. Ph.D. dissertation, MIT.

Rivero Maria Luisa & Ana Arregui. 2012. Building involuntary states in Slavic. In Demonte Violeta & Louise McNally (eds) *Telicity, Change and State. A Cross-Categorial View of Event Structure*, 300–332. Oxford: Oxford UniversityPress.

Rivero Maria Luisa, Ana Arregui & Ewelina Frąckowiak. 2010. Variation in circumstantial modality: Polish versus St'át'imcets. *Linguistic Inquiry* 41, 704–714.

Wierzbicka, Anna. 1967. On the semantics of verbal aspect in Polish. In *To honor Roman Jakobson*. vol.3, 2231-2249. The Hague: Mouton.

Acquisition of noun inflection in Czech

Stepan Matejka & Filip Smolik

(Charles University, Faculty of Arts, Prague & Institute of Psychology, Academy of Sciences, Czech Republic)

In Czech, there are almost no empirical studies concerning the acquisition of grammatical words and forms by children. Our paper presents data about acquisition of case inflection of nouns produced by children between 18 and 48 months of age. In this age, children acquire a substantial amount of grammatical phenomena. The study is part of a larger project focused on explanatory description of acquisition of various grammatical phenomena in Czech.

The research is based on parental reports (e.g. Fenson et al., 1993, 2006). This method is predominantly used for the assessment of vocabulary. Our study newly aims to extend the use of parental-report method to the study of function words and grammatical morphemes in morphologically

rich language such as Czech. We collected the data through a web-based questionnaire completed by the children's mothers, and focused on children's spontaneous production of case inflection of nouns. In Czech, there are seven noun cases in singular and plural form (nominative, genitive, dative, accusative, vocative, locative, instrumental).

Our research aim was to set an order of acquisition of individual cases, and to examine factors influencing this order, e.g. frequency of cases (e.g. Goodman et al., 2008), semantic and grammatical complexity, demographic factors. Besides the cases of nouns, we also included questions about children's expressive vocabulary and the grammatical complexity of their utterances. Some demographic data were collected as well. In total, we obtained data on 117 children (average age 33.44 months, SD = 7.67).

The analyses conformed that the total number of acquired cases strongly correlates with the age of children (0.63), but even more with children's expressive vocabulary (0.83) and grammatical complexity (0.83) of their utterances (similarly for example Marchman et al., 2004, or McGregor and Sheng, 2005, who proposed lexical-grammatical continuity between acquisition of grammar and lexicon). Mixed–effects logistic regressions showed that age, children's expressive vocabulary, and grammatical complexity have a strong independent effect on number of individual noun cases produced by children.

We used the random effects from the mixed logistic model to estimate relative difficulty of individual cases of nouns. We also set an order of acquisition of cases. The results indicate that the order of acquisition of cases is different for animate and inanimate nouns. In the paper, the order of acquisition of case inflection in Czech will be compared with studies from other languages.

The linear model analyses examined the effects of various demographic factors, such as child's gender, birth order and parent education, on the order of acquisition of noun inflection. These factors are mentioned in many studies as influencing language acquisition (e.g. Bleses et al., 2008; Hoff-Ginsberg, 1998). Our results did not reveal significant effects of any of these demographic factors.

References

Bleses, D., Vach, W. Slott, M., Wehberg, S., Thomsen, P., Madsen, T. O., Basbøll, H. (2008): The Danish Communicative Developmental Inventories: validity and main developmental trends. *Journal of Child Language*, 35 (3), 651–669.

Fenson, L., Dale, P. S., Reznick, J. S., Thal, D., Bates, E., Hartung, J. P., Pethick, S., Reilly, J. S. (1993): *MacArthur Communicative Development Inventories: User's Guide and Technical Manual*. San Diego, CA: Singular Publishing Group.

Fenson, L., Marchman, V. A., Thal, D. J., Dale, P. S., Reznick, J. S., Bates, E. (2006): *MacArthur Communicative Development Inventories: User's Guide and Technical Manual (Second edition)*. Baltimore: Paul H. Brookes Publishing.

Hoff–Ginsberg, E. (1998): The relation of birth order and socioeconomic status to children's language experience and language development. *Applied Psycholinguistics*, 19, 603–629.

Goodman, J. C., Dale, P. S., & Li, P. (2008): Does frequency count? Parental input and the acquisition of vocabulary. *Journal of child language*, 35(03), 515–531.

Marchman, V. A., Martínez-Sussmann, C., Dale, P. S. (2004): The language-specific nature of grammatical development: evidence from bilingual language learners. *Development Science* 7:2, 212–224.

McGregor, K. K. – Sheng, L. (2005): The precosious two-year-old: status of the lexicon and links to the grammar. Journal of Child Language, 32, 563–585.

Distinguishing inherited vocabulary from loans in Uralic languages

Niklas Metsäranta

(University of Helsinki)

My research subject is lexical borrowing between different branches of the Uralic language family focusing mainly on borrowing between Permic languages (Komi and Udmurt) and Mari and between Permic and Hungarian. This work is chiefly carried out in the framework of the comparative method (historical linguistics) and etymology.

My research stems from the observation that there is a notable discrepancy in the amount of words reconsctructed for Proto-Uralic in traditional works on Uralic etymology such as Uralisches etymologisches Wörterbuch (UEW) and later research on the same subject, notably Juha Janhunen and Pekka Sammallahti. While UEW reconstructs around 700 Proto-Finno-Ugric words, according to Janhunen and Sammallahti only about 140 words go back to Proto-Uralic and around 300 to Proto-Finno-Ugric. Janne Saarikivi has proposed that the bulk of the vocabulary discarded by Janhunen and Sammallahti is in fact Uralic, but rather than being etymological cognates stemming from Proto-Uralic, words displaying phonological irregularities are loans between different branches of Uralic.

The goal of my study is to find out to what extent borrowing between different branches accounts for the aforementioned vocabulary. Differentiating between true cognates and loans of different age between branches is of paramount importance because without the help of correctly understood lexical corpus establishing regular correspondances is impossible and our understanding of historical phonology remains lacking.

Branch-specific innovations (ie. sound changes unique to a specific branch) are usually what allows us to separate loan words from inherited vocabulary. In theory distinguishing between etymological cognates and loans should be a straightforward task. Problems arise when two adjacent branches share a number of seemingly similar sound changes. Some of the congruent looking sound changes result not from congruent sound changes, however, but from misinterpretation of etymological data.

Establishing what actually is regular in which branch and operating under the assumption that the proposed cognate sets may contain loans between branches has yielded some modest results. Some developments in Mari can readily be explained as results of borrowing from Permic. For example in Mari two different reflexes have been postulated for PU *č in intervocalic position. PU *č has either remained as *č or it has changed to *ž. In Permic the assibilation (PU *č > ž) is the only possible outcome of PU *č in intervocalic position and perfectly regular.

> Examples:
> Mari E *mužo* 'evil spirit' W *mə̂ž* < Udm *mi̮ž* 'sickness, evil spirit' ~ Ko *mi̮ž* 'guilt,punishment, disease' < PU *muča 'fault, defect, sickness'
> Mari E *ožo* 'stallion' W *ožə̂* < Udm *už* 'stallion' ~ Ko *už* 'id.' < *oč(w)a/*ęč(w)a 'stallion'

So rather than postulating two unconditioned changes in Mari it would seem more sensible to interpret those few cases where Mari displays *ž* as a reflex of an earlier *č as Permic loans.

More often than not the direction of the loans is hard to infer as there are no branch-specific innovations present. Research is on-going and will hopefully lead to a better understanding of Uralic vocabulary as a whole in the future.

References

Aikio, Ante 2013a: *Uralilaisen kantakielen vokaalistosta*. Etymologia ja kielihistoria: Erkki Itkosen ja Aulis J. Joen 100-vuotisjuhlaseminaarin ojenne.
http://cc.oulu.fi/~anaikio/vokaalisto_handout.pdf

Aikio, Ante 2014a: On the reconstruction of Proto-Mari vocalism. – *Journal of Language Relationship* 11 s. 125–157.

Aikio, Ante 2014b: Studies in Uralic Etymology III: Mari Etymologies. – *Linguistica Uralica* 2/2014 s. 81–93.

Beke, Ödön 1997–2001: *Mari nyelvjárási szótár (Tscheremissisches Dialektwörterbuch) I–IX.* Unter Mitarbeit von Zsófia M. Velenyák und József Erdődi. Neuredigiert von Gábor Bereczki. Bearbeitet von Margarita Kuznecova. Herausgegeben von János Pusztay. Bibliotheca Ceremissica. Szombathely.

Bereczki, Gábor 1992: *Grundzüge der tscheremissischen Sprachgeschichte II.* Studia Uralo-Altaica 34. Szeged: Universitas szegediensis de Attila József nominata.

Bereczki, Gábor 1994: *Grundzüge der tscheremissischen Sprachgeschichte I.* Studia Uralo-Altaica 35. Szeged: Universitas szegediensis de Attila József nominata.

Bereczki, Gábor 2013: *Etymologisches Wörterbuch des Tscheremissischen (Mari). Der einheimische Wortschatz.* Veröffentlichungen der Societas Uralo-Altaica Band 86. Wiesbaden: Harassowitz.

Janhunen, Juha 1977: *Samojedischer Wortschatz – Gemeinsamojedische Etymologien*. Castrenianumin toimitteita 17. Helsinki.

Janhunen, Juha 1981: Uralilaisen kantakielen sanastosta. – *Suomalais-Ugrilaisen Seuran Aikakauskirja* 77 s. 219–274.

KESKJ = Лыткын, В. И. & Гуляев, Е. С. 1999: *Краткий этимологический словарь коми языка.* Переиздание с дополнением. Сыктывкар: Коми книжное издательство.

Koivulehto, Jorma 1999: Varhaiset indoeurooppalaiskontaktit: aika ja paikka lainasanojen valossa. – P. Fogelberg (toim.), *Pohjan poluilla. Suomalaisten juuret nykytutkimuksen mukaan.* Bidrag till kännedom av Finlands natur och folk 153 s. 207–236. Helsinki.

Lytkin, V. I. 1964: *Исторический вокализм пермских языков.* Москва: НАУКА.

Sammallahti, Pekka 1988: Historical Phonology of the Uralic Languages with Special Reference to Samoyed, Ugric and Permic. – Denis Sinor (toim.), *The Uralic Languages. Description, History and Foreign Influences* s. 478–554. Leiden: E.J. Brill.

SSA = Itkonen, Erkki & Kulonen, Ulla-Maija (toim.) 1992–2000: *Suomen sanojen alkuperä. Etymologinen sanakirja 1–3.* Helsinki: Kotimaisten kielten tutkimuskeskus & Suomalaisen kirjallisuuden seura.

TschWb = Moisio, Arto & Saarinen, Sirkka 2008: *Tscheremissisches Wörterbuch.* Aufgezeichnet von Volmari Porkka, Arvid Genetz, Yrjö Wichmann, Martti Räsänen, T. E. Uotila und Erkki Itkonen. Lexica Societatis Fenno-Ugricae XXXII. Helsinki: Suomalais-Ugrilainen Seura & Kotimaisten kielten tutkimuskeskus.

UEW = Rédei, Károly 1988–1991: *Uralisches Etymologisches Wörterbuch I–III.* Budapest: Akadémiai Kiadó.

Romanian Active Adjectival Participles – Unaccusativity and Transitivity

Dana Niculescu & Carmen Mîrzea Vasile

(University of Amsterdam & 'Iorgu Iordan - Al. Rosetti' Institute of Linguistics & University of Bucharest)

This study examines the adjectivization process of active past participles in Romanian territorial variants, on the basis of a large dialectal corpus. We aim to establish whether the factors determining the possibility of adjectivization of active participles in dialectal Romanian are: (a) unaccusativity, for intransitives (Levin and Rappaport Hovav 1986), and (b) the combination of having a mono-argumental structure and the referential identity of the initiator of the activity and its theme, for the only type of transitives from which adjectival active participles can be formed in Romance according to the literature, i.e. absolute transitives (Bentley and Ledgeway 2014). Our corpus analysis shows that these factors do not condition the process of adjectivization of active participles in Romanian dialects. Based on the semantic classes of intransitive verbs discussed by Sorace (2004), we show that in dialectal Romanian the adjectivization process is more uniform with unaccusatives and increases in variability as we move away from the unaccusative core identified by Sorace (thus confirming the predictions made by the author's Split Intransitivity Hierarchy, 2015). However, since participles formed from all these classes, including controlled processes, can be adjectivized in Romanian, we argue that unaccusativity is not a factor determining the possibility of adjectivization of active participles in Romanian dialects.

As far as transitive verbal bases are concerned, Bentley and Ledgeway (2014) show that active participles of absolute transitives can be adjectivized, as opposed to transitives with a realized direct object. Active adjectival participles like the Romanian ***mâncaţi*** eaten.m.pl is based on an absolute transitive structure in which the subject has both the role of Agent and Theme, as seen in the semantic representation of 'x ate': **do'** (x, [**eat'** (x)]) & BECOME **satiated'** (x). Dialectal Romanian data reveal that, differently from other Romance varieties, adjectival participles can realize the direct object of their transitive verbal source (*băiat făcut **armata***, boy.m.sg done.m.sg army.def.acc 'boy that has done the military service', Marin 1991: 51). This means that, in Romanian dialects, having a mono-argumental structure and a co-referential Agent and Theme are not conditions for the adjectivization of participles formed from transitives. Adopting the line of Distributed Morphology (Marantz 1997, Embick 2004, Alexiadou and Anagnostopoulou 2008 a.o.), we propose that, in dialectal Romanian, adjectival participles with a resultative reading are headed by the stativizing Aspect node that selects either a vP, where v is the verbalizing head, with unaccusatives, or a VoiceP, where Voice introduces the external argument, with unergatives and (absolute) transitives. Our novel dialectal data show that the stativizing Aspect head can also select a fully-fledged transitive structure with a realized direct object, a VoiceP (equivalent to a phasal vP, Chomsky 2008), where the head Voice has an Accusative feature, licensing the direct object (1).

(1) $[\text{AspP } [\text{Asp } [\text{VoiceP DP}_2 [\text{Voice}_{+Acc} [\text{vP } [\text{v } \sqrt{} \text{ DP}_1]]]]]]$

References

Alexiadou, A., E. Anagnostopoulou 2008. ´Structuring Participles´. In C. Chang, H. Haynie (eds.), *Proceedings of the 26th West Coast Conference on Formal Linguistics.* Somrville, MA: Cascadilla.

Bentley, D., A. Ledgeway 2014. ´Manciati siti ? Les constructions moyennes avec les participes résultatifs-statifs en italien et dans les variétés italo-romanes méridionales´. *Langages* 2, 194. 63-80.

Chomsky, N. 2008. 'On phases'. In Freidin, R., Otero, C., Zubizarreta, M.-L. (eds.), *Foundational Issues in Linguistic Theory: Essays in Honor of Jean-Roger Vergnaud*. Cambridge Mass: MIT Press. 134–166.

Embick, D. 2004. 'On the structure of resultative participles in English'. *Linguistic Inquiry* 35.3. 355-392.

Marantz, A. 1997. 'No Escape from Syntax: Don't Try Morphological Analysis in the Privacy of Your Own Lexicon'. In A. Dimitriadis, L. Siegel, et. al., (eds.) *University of Pennsylvania Working Papers in Linguistics*, vol. 4.2, Proceedings of the 21st Annual Penn Linguistics Colloquium. 201-225.

Levin, , B., M. Rappaport 1986. ´The Formation of Adjectival Passive´. *Linguistic Inquiry* 17. 623−661.

Marin, M. 1991. 'Morfologia verbului în graiurile munteneşti'. FD 10. 45-65.

Sorace, A. 2015. 'The cognitive complexity of auxiliary selection: from processing to grammaticality judgments'. In R. Kailuwet, M. Rosemeyer (eds.), *Auxiliary Selection Revisited*. Berlin: De Gruyter. 23-42.

Sorace, A. 2004. 'Gradience at the Lexicon–Syntax Interface: Evidence from Auxiliary Selection for Unaccusativity'. In A. Alexiadou, E.Anagnostopoulou, M. Everaert (eds.), *The Unaccusativity Puzzle. Explorations of the Syntax-Lexicon Interface*. Oxford: Oxford University Press. 243-268.

The expression of spatial meanings in Livonian against a background of Estonian and Latvian

Miina Norvik

(University of Tartu)

This paper analyses the conceptualisation of space in Livonian, drawing parallels with the corresponding systems in Estonian and Latvian. As these languages are related areally, not genealogically (Livonian and Estonian are Finno-Ugric languages belonging to the Finnic branch and Latvian is an Indo-European language), similarities and differences are also discussed in the light of language contacts.

In Livonian, Estonian and Latvian, spatial meanings are expressed by means of inflectional suffixes and adpositional constructions. Whereas Latvian makes use of one locative case, Livonian and Estonian make use of the tripartite locative case system and the distinction between external and internal locative cases; this system is also represented in postpositional constructions (see Table 1). Still, apart from Estonian (and other Finnic languages), the use of the external locative cases in Livonian is limited to certain nouns and fixed expressions (Viitso 2008: 328). For instance, in Table 1 one can fill in all the slots for the Livonian word *mȭ* 'ground', but with many other nouns some slots would remain empty. In Livonian, one also finds conflation of cases conveying goal and location. As a result, *mȱl* can be found with the meaning 'on the ground' and 'onto the ground'.

Table 1. **Spatial expressions containing *mȭ* 'ground'**

	GOAL	LOCATION	SOURCE
Inflectional suffixes			
External	*mȭ-lõ* (Allative)	*mȭ-l* (Adessive)	*mȭ-ldõ* (Ablative)
Internal	*mȭ-zõ* (Illative)	*mȭ-s* (Inessive)	*mȭ-stõ* (Elative)
Postpositional constructions			
External	*mȭ pã̄-lõ*	*mȭ pã̄-l*	*mȭ pã̄-ldõ*
Internal	*mȭ si'zz-õl*	*mȭ sizā-l*	*mȭ sizā-ld*

There are two main goals of the paper.

1. To analyse the conceptualisation of space in Livonian by studying the use of locative cases and postpositional constructions. So far, there is no research on this; previous researchers have only mentioned the limited use of the external locative cases in Livonian, but they have not compared the case system to the corresponding postpositional constructions. A pilot study showed that some nouns (e.g. *ve'ž* 'water') clearly favour postpositional constructions, while others (e.g. *tõrg* 'market') appear in both usages. In order to determine the choice between the synthetic and analytic means, the various properties of Landmarks and Trajectors (for the notions, see e.g. Talmy 1983) will be considered as done by Klavan (2012) in a study on the fluctuation of such synthetic and analytic constructions in Estonian.

2. To interpret the results in the light of language contacts by considering the comparative data from Estonian and Latvian. Although one can suspect that the reduction of the local case system in Livonian results from the Latvian influence, there is also evidence of the Livonian (Finnic) influence on Latvian. For instance, as maintained by Ernštreits and Kļava (2014), the Latvian locative displays semantics typical to the Finnic allative and illative cases.

In the case of Livonian, the linguistic data was collected from various collections of texts and recordings that go back to mid-1860s; additional examples were taken from grammars/grammar overviews of Livonian. The Estonian and Latvian data originated from language corpora.

References

Ernštreits, Valts and Gunta Kļava. 2014. Grammatical changes caused by contact between Livonian and Latvian. *ESUKA*, 5: 1, 77–90.

Klavan, Jane. 2012. *Evidence in linguistics: corpus-linguistic and experimental methods for studying grammatical synonymy.* Doctoral thesis. Tartu: Tartu Ülikooli Kirjastus.

Talmy, Leonard. 1983. How language structures space. In Herbert L. Pick and Linda P. Acredolo (eds.). *Spatial Orientation: Theory, Research and Application*, 225–282. New York: Plenum Press.

Viitso, Tiit-Rein. 2008. *Liivi keel ja läänemeresoome keelemaastikud.* Tartu, Tallinn: Eesti Keele Sihtasutus.

Oddities of *mono ka* rhetorical questions

Takeshi Oguro

(Chiba University of Commerce)

In this presentation, I deal with properties of what I call *mono ka* rhetorical questions (RQs) in Japanese, exemplified in (1a). They are special in that they are always interpreted as rhetorical, while ordinary questions (OQs) such as (1b) can be ambiguous between the information seeking reading and the rhetorical reading (Caponigro and Sprouse 2007). I would like to offer an analysis of *mono ka* RQs.

(1)   a.   Dare-ga   kur-u   mono ka!
                who-NOM   come-PRES   C   Q
                'No one will come!'

      b.   Dare-ga   ki-mas-u   ka?
            who-NOM   come-POLITE-PRES   Q
                 'Who will come?'

There are several properties that separate *mono ka* RQs from OQs:

(i)   *Mono ka* RQs cannot end with rising intonation, while OQs can.

(ii)   *Mono ka* RQs cannot be answered, while OQs can.

(iii)   *Mono ka* RQs allow negative polarity items like *daremo* 'anyone', but OQs do not.

(2)   a.   Daremo   kur-u   mono   ka!
             anyone   come-PRES   C   Q
             'No one will come!'
     b.   *Daremo   ki-mas-u   ka?
             anyone   come-POLITE-PRES   Q
             'Will anyone come?'

(iv) *Mono ka* RQs are not compatible with the past tense, while OQs are.

(v) *Mono ka* RQs fail to be "mention some" questions, while OQs can.

(vi) The WH-phrase in *mono ka* WH-RQs must be the subject, unlike in OQs.

(3)   a.   *Kare-ga   nani-o   ka-u   mono ka!
             he-NOM   what-ACC   buy-PRES   C   Q
             'He will buy nothing!'
     b.   Kare-ga   nani-o   kai-mas-u   ka?
             he-NOM   what-ACC   buy-POLITE-PRES   Q
             'What will he buy?'

I propose that (2a) has the following structure.

(4)   [$_{CP}$ OP$_{[+Neg]}$ [$_{FIN}$ [$_{TP}$ daremo kuru] mono] ka$_{[RQ]}$]

Here, the C^0 is assumed to be distinct from the one for OQs to capture the effects in (i) and (ii). The negative operator, necessary for the negative interpretation, is in Spec-CP. I assume that *ka*$_{[RQ]}$ selects the FinP headed by *mono*, roughly following Rizzi (1997), and that *mono* selects a subjunctive type of TP, which does not allow an episodic tense.

I suggest that (1a), a *mono ka* WH-RQ, has the following structure.

(5)   [$_{CP}$ OP$_{[+Neg]}$ [$_{FIN}$ dare-ga [$_{TP}$ *t* kuru] mono] ka$_{[RQ]}$]

I assume that the subject WH-phrase is raised to Spec, FIN and licensed by the negative operator, following den Dikken and Giannakidou's (DD&G) (2002) treatment of WH-*the hell* expressions. The subject WH-phrase functions as a negative quantifier, hence the incompatibility with the mention-some reading. This movement analysis correctly predicts that (3a) improves significantly if the object WH-phrase is fronted.

(6)   Nani-o   kare-ga   ka-u   mono ka!
        what-ACC   he-NOM   buy-PRES   C   Q
        'He will buy nothing!'

Japanese has another type of rhetorical questions, ending with the string *toyuuno* 'would you say' (Sprouse (2007)). They do not allow negative polarity items like *daremo*, unlike *mono ka* RQs. I

assume that they have structures that are similar to those of *mono ka* RQs, but they do not involve a negative operator but a nonveridical operator, which creates the rhetorical interpretation in a certain modal context (DD&G (2002)).

References

Caponigro, Ivan, and Jon Sprouse. 2007. Rhetorical questions as questions. In Puig-Waldmüller, Estella (ed.), *Proceedings of Sinn und Bedeutung* 11. Barcelona: Universitat Pompeu Fabra, 121-133.

den Dikken, Marcel and Anastasia Giannakidou. 2002. From *hell* to polarity: "aggressively non-D-linked" *wh*-phrases as polarity items. *Linguistic Inquiry* 33. 1:31-61.

Rizzi, L. 1997. The Fine Structure of the Left Periphery. In Haegeman, Liliane (ed.), *Elements of Grammar: Handbook of Generative Syntax*. Dordrecht: Kluwer, 281-337.

Sprouse, Jon. 2007. Rhetorical questions and *Wh*-Movement. *Linguistic Inquiry* 38. 3: 572-580.

Volitionality and *Aktionsart* in Kagayanen -- a core Philippine language

Thomas E. Payne

(University of Oregon and SIL International)

The term "aptative" is often used in descriptions of Philippine languages for a verbal category that describes non-deliberate, abilitative or coincidental situations (see, e.g. Rubino 1998:1149 speaking of Tagalog). Kagayanen (ISO 639-3, CGC) is a Northern Manobo language spoken by about 30,000 individuals in Palawan Province in the Philippines. As with many Philippine languages, Kagayanen exhibits a complex system of verbal inflection that involves intersecting parameters of aspect, transitivity and modality. In work in preparation, the authors describe the major distinction in Kagayanen verbal categories as dynamic vs. aptative modality. This paper examines the usages of dynamic and aptative modality across various verb classes, and provides reasonable cognitive/functional explanations for several observed patterns.

A major finding of this paper is that for non-volitional intransitive verbs and transitive experiential verbs (verbs of non-volitional perception and cognition) the aptative prefixes are the basic forms that are used in foregrounded portions of narrative texts (Hopper & Thompson 1980), and as such can be understood as perfective in aspectual function. For other verb classes, dynamic modality is the basic foreground form, while aptative modality implies happenstance, ability, or perfect aspect.

These correspondences are described in the following table:

Relationship between some verb classes and dynamic vs. aptative modality

Semantic class of verb	*Dynamic affixes*	*Aptative affixes*
Semantically transitive verbs involving motion and/or change, and semantically volitional intransitive verbs	Default (foreground in narrative)	Happenstance, ability, perfect aspect function
Transitive experiential/cognition verbs, and semantically non-volitional intransitive verbs	Inchoative (with intransitive affixation), or Causative (with transitive affixation)	Default (foreground in narrative)

The arrays of meanings associated with both dynamic and aptative modality are largely understandable in terms of inherent verbal aspect (*aktionsart*), with the addition of the notion of volitionality. For volitional activities, achievements, and accomplishments (see Vendler 1957, and the reinterpretation of Vendler's categories in Van Valin 2006), dynamic modality is basic, and aptative modality eliminates the notion of volitionality, resulting in stative interpretations. For situations that inherently lack volitionality, aptative modality is basic, and dynamic modality adds a component of activity, resulting in an inchoative or causative sense. We argue for this analysis based on a quantitative study of a database consisting of 150,088 words of naturally occurring texts of various genres, collected and annotated over a period of 21 years. As far as we know, such a thorough study of modality with different semantic classes of verb roots has heretofore not been undertaken for any Philippine language.

References

Hopper, Paul J., and Sandra A. Thompson. 1980. Transitivity in grammar and discourse. *Language* 56.251-99.

Rubino, Carl. 1998. *Tagalog (Pilipino) Tagalog-English English-Tagalog standard dictionary with grammar*. New York: Hippocrene Books.

Van Valin, Robert D. Jr. 2006. Some universals of verb semantics. In R. Mairal, & J. Gil (Eds.), *Linguistic universals* (pp. 155-178). Cambridge: Cambridge University Press.

Vendler, Theo. 1957. Verbs and times. *The Philosophical Review*, 66.2.143-160.

An Underused Resource: The Relevance of Indigenous Toponomastics in the Western Caribbean

Ivan Roksandic

(University of Winnipeg)

Toponyms form a distinct subset of lexical inventory of any language and play an important part in the culture of its speakers. One interesting aspect of toponymy in the Western Caribbean is that a substantial portion of it consists of indigenous place names, in spite of the fact that none of the languages present on the islands prior to European arrival is still spoken there today. At the time of contact and early colonization by the Spanish in the late 15th and early 16th centuries, the Greater Antilles were populated by five distinct speech communities: the Taíno (Classic Taíno); the Ciboney (or Western Taíno); the Guanahatabey; the Macorís; and the Ciguayo. Taíno (or Island Arawak) was the dominant language, with several geographically distinct but mutually intelligible dialects, and was used as a lingua franca in the region. Whereas the origin and linguistic affiliation of Taíno are clear – it belongs to the Caribbean branch of the Arawak language family – the situation with the other four languages is less obvious: all we have on Ciguayo, Macorís and Guanahatabey are very few recorded word forms and a number of place names. The Ciboney, according to the early Spanish chroniclers, spoke a dialect of Taíno, as supported by their toponomastics. Evidently, place names represent by far the most abundant source of available linguistic information about the lost languages of the ancient Caribbean. Nonetheless, this corpus remains understudied: although a number of comprehensive works has been devoted to collecting place names on individual islands, far fewer analytic studies have been accomplished so far. While an important majority of indigenous place names certainly are Taíno, a number of them display characteristics that are difficult to interpret as such. Identifying areal

sets of place names which display recurrent non-Arawak structures, systematic analysis of their morphophonological and lexical characteristics, and their comparison with the linguistic features of relevant language families spoken in the contiguous continental regions – such as Warao and Chibchan – can make a significant contribution to our understanding of population groups on the islands in the pre-contact period. The present study proposes a first step in that project: a systematic review of Taíno toponyms from the Greater Antilles, and an examination of their morphophonology, based on comparative analysis using still spoken sister languages such as Guajiro, Lokono, and Garifuna. It further attempts to define the differences between Island Arawak toponyms, on one hand, and (possible) non-Arawak toponyms, on the other.

Semantic non-compositionality and its phonetic realization

Marcel Schlechtweg
(University of Kassel)

The current paper aims at analyzing novel/non-lexicalized adjective-noun (AN) combinations in American English and asks whether one specific factor, namely semantic (non)-compositionality, has an influence on their stress pattern. It is hypothesized that non-compositional semantics trigger a higher degree of initial stress, i.e. stress on the adjective, than compositional semantics. The second question to be addressed is whether stress is placed differently if another device that emphasizes non-compositionality, namely *called so*, is used together with non-compositional constructions.
Six native speakers of American English participated in a production study that investigated six disyllabic AN constructions and the independent variable semantic compositionality (within-subject/item), which had the following three levels:

(1) Compositionality (= C): *Thomas took a black tram again, which has a color he likes.*
(2) Non-compositionality (without *called so*) (= N): *Thomas took a black tram again, which is a tram that runs only during the night.*
(3) Non-compositionality (with *called so*) (= S): *Thomas took a black tram again, which is called so because it is a tram that runs only during the night.*

In each condition, subjects (1) read the sentence silently, (2) had to answer a question referring to the sentence in order to ensure that they had understood the meaning (e.g. *Is a black tram a tram that goes to the graveyard?* (Correct answer: No)) and (3) read the sentence aloud and were recorded with Praat. In each condition, an item occurred in the same phonetic environment as in the other conditions. The ratio and difference of the durations/intensities/F0s of the vowel of the adjective (e.g. *black*) and the vowel of the noun (e.g. *tram*) of each complex item was created in each of the three conditions. It was assumed that a greater ratio/difference signaled a higher degree of initial stress. N triggered, in terms of duration and F0, a significantly higher degree of initial stress than C and S, which, in turn, did not cause any significantly different degree of initial stress. The results show that non-compositionality triggers a higher degree of initial stress than compositionality. However, if another device that indicates non-compositionality is used (*called so*), the degree of initial stress drastically decreases because the non-compositional semantics are already signaled by means of *called so*.

The Gender of the Numeral *two/zwöi* in Bernese German

Christa Schneider

(University of Bern)

The atlas of German-speaking Switzerland (SDS) was published in 8 volumes between 1962 and 1997, containing more than 1500 dialect maps. In order to describe the variety spoken in the greater area of Bern (Berner Mittelland), Baumgartner et al. collected data in 20 different towns and villages by questioning mainly NORMs, but some women have also been taken into account. In the SDS we find data on the greater area of Bern (Berner Mittelland), collected around 1944. Since then, only very specific factors of this particular linguistic variety have been examined, e.g. Hodler 1969 on Bernese German syntax, Marti 1976 on Bernese German grammar more generally or Siebenhaar 2000 on social varieties in the city of Bern, but the dialect has not been examined in its entirety.

In my PhD project, I collect new data for Bern and its greater area according to selected variables already surveyed in the SDS, and compare them to the original data. My main focus is on language change and its underlying reason.

The Alemannic dialects of German-speaking Switzerland differ in several points from the German standard language, e.g. in the existence of numeral gender. This variable, present in the Old-High-German period, is still documented in the 20th century, but has been lost in return in the German standard language (cf. Christen et al. 2012)..

The data in the SDS show a trichotomy in numeral gender (feminine, masculine, neuter) for the greater area of Bern but only for the numeral *zwöi (engl. two): e.g. zwe Manne (m.), zwo Froue (f.), zwöi Ching (n.) (engl. two men, two women, two children)*.

My contemporary data show that only the oldest generation (60+) is able to produce the trichotomy spontaneously, whereas the youngest generation (16-35) is not even aware of the trichotomy anymore. Interestingly, the middle generation (35-60) has to be divided into three groups:

1. Speakers, who still produce the trichotomy spontaneously
2. Speakers, who are aware of the trichotomy but – generally – do not produce it
3. Speakers, who are not aware of the trichotomy anymore

The SDS clearly documents stability in this trichotomy, the contemporary data collection, however, shows a decline in variation and therefore evidences language change in progress.

References

Baumgartner Heinrich, Hotzenköcherle Rudolf (1962-2003). *Sprachatlas der deutschen Schweiz.* Bern, Basel: Francke Verlag

Christen Helen, Glaser Elvira und Friedli Matthias (2012). *Kleiner Sprachatlas der deutschen Schweiz.* Frauenfeld: Verlag Huber

Hodler, Werner (1969). *Berndeutsche Syntax.* Bern: Francke Verlag,

Marti, Werner (1985). *Berndeutsch-Grammatik für die heutige Mundart zwischen Thun und Jura.* Bern: A. Francke

Siebenhaar Beat, Stäheli Fredy, Ris Roland (2000). *Stadtberndeutsch : Sprachporträts aus der Stadt Bern.* Murten: Licorne-Verlag

Insubordination in English: A feature of speech?

Daniela Schröder

(University of Hamburg)

Insubordination is a term coined by Evans (2007) that describes sentences which formally appear to be subordinated clauses, but which occur in a conventionalized main clause use. Examples include *how*- and *what*-exclamatives such as "How beautiful she is!" or "What a nerd he is!" Implicitly, most studies on insubordination seem to posit that insubordination is a feature of spoken discourse, which is intuitively appealing. Consequently, empirical studies on a variety of Indoeuropean languages (cf. Lombardi Vallauri 2004, Brinton 2014, D'Hertefeldt & Verstraete 2014, Van linden and Van de Velde 2014) on insubordination pre-select their data base, investigating insubordination only in corpora that (mostly) consist of (transcribed) spoken language. This paper challenges the view that insubordination is primarily a feature of speech by providing a detailed case study of insubordinated exclamatives in English in different registers.

Data was obtained from the British National Corpus (BNC). Spoken language was contrasted with two other genres that differ sharply along the dimensions proposed by Biber (1988), namely narrative fiction and academic prose, to test the hypothesis that insubordination predominantly occurs in speech.

Three specific syntactic forms have been selected. Those are clauses in the form of how + personal pronoun (How she can say such a thing!), how + adjective/adverb (How beautiful you are) and what a-exclamatives (What a bookworm he is!). All three syntactic forms convey an exclamatory meaning and should thus be particularly prone to occur in speech (e.g. Michaelis 2001).

Not surprisingly, insubordination is almost non-existent in academic prose. More importantly, however, the results clearly indicate that in English, insubordination predominantly occurs in prose fiction and not in conversation.

Genre	# of insubordination	Normalized (per 100 000 words)
Academic Prose	8	0.051
Conversation	33	0.836
Fiction	983	5.909

Additionally, the outcomes demonstrate that the overall frequency of occurrences depend on the investigated structure.
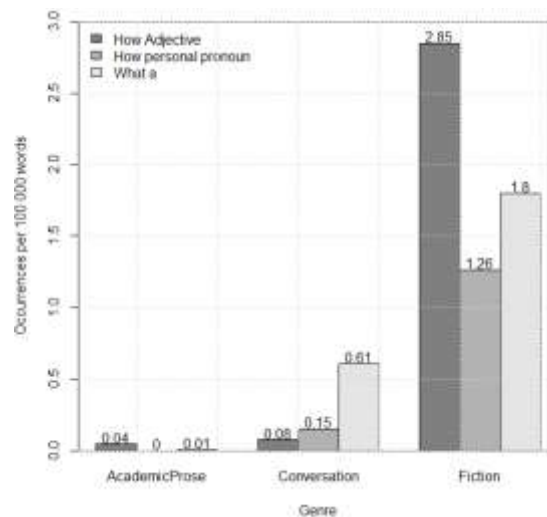
The conclusions are threefold. First, this study casts doubt on the validity of some of the results of previous studies, as they used corpora containing material that is not prone to show insubordinated structures. Therefore, one conclusion from the present study is that intuition may not always be right. Second, it seems that even though all three insubordinated constructions convey exclamatory meaning, their distributions, both within and across registers, differs. Hence, the results call for a more cautious treatment of the term insubordination, suggesting that a more refined application of the term and concept of insubordination would be in order.

Third, the finding that insubordination occurs most frequently in fiction prose requires an explanation. It is imaginable that insubordination is a suitable means for expressing exclamation in written text, as a way to compensate absent prosody, because insubordinated exclamatives are viewed as the prototypical way of exclaiming (Ziem and Ellsworth 2016). If this is correct, insubordinated exclamatives could be analyzed as a stylistic marker of fiction prose.

References

The British National Corpus, version 2 (BNC World). 2001. Distributed by Oxford University Computing Services on behalf of the BNC Consortium. URL: http://www.natcorp.ox.ac.uk/

Biber, Douglas. 1988. *Variation across speech and writing*. Cambridge: Cambridge University Press.

Brinton, Laurel J. 2014. The Extremes of Insubordination: Exclamatory as if! *Journal of English Linguistics* 42(2), 93–113

D'Hertefelt, Sarah and Jean-Christophe Verstraete. 2014. "Independent complement constructions in Swedish and Danish: Insubordination or dependency shift?" *Journal of Pragmatics* 60, 89–102.

Evans, Nicolas. 2007. "Insubordination and its uses" In: Nikolaeva, Irina (ed.) *Finiteness. Theoretical and Empirical Foundations*. New York: Oxford University Press.

Lombardi Vallauri, Edoardo. 2004. Grammaticalization of Syntactic Incompleteness: Free Conditionals in Italian and Other Languages *SKY Journal of Linguistics* 17, 189–215.

Michaelis, Laura A. 2001. Exclamative Constructions. In Martin Haspelmath, Ekkehard König, Wulf Österreicher and Wolfgang Raible (eds.) *Language Universals and Language Typology. An International Handbook. Volume 2/2*. Berlin/New York: De Gruyter, 1038–1050.

Van linden, An and Freek van de Velde. 2014. "(Semi)autonomous subordination in Dutch: Structures and semantic-pragmatic values" *Journal of Pragmatics* 60, 226–250.

Verstraete, Jean-Christoph, Sarah D'Hertefelt and An Van linden. 2012. "A typology of complement insubordination in Dutch" *Studies in Language* 36(1), 123–153.

Ziem, Alexander and Michael Ellsworth. 2016. Exklamativsätze im FrameNet-Konstruktikon am Beispiel des Englischen. In: Rita Finkbeiner and Jörg Meibauer (eds.) Satztypen und Konstruktionen. Berlin/Boston: de Gruyter, 146–191.

The Acoustic Properties of Non-Native English Vowels and the Evaluation of the Goodness of Pronunciation

Chris Sheppard

This presentation reports research which examined if the acoustical properties of vowels accounted for native speaker evaluation of non-native speech. Researchers have been using native speaker evaluations of non-native speech for more than 30 years (e.g. Oyama, 1976; Piske, 2001; Purcell and Suter, 1980; Sheppard, Hayashi and Ohmori, 2007. Munro and Derwing (1995) suggested that native

evaluations were effected largely by suprasegmental features, rather than segmental features of learner speech. In contrast, Wayland (1997) found that fundamental frequency and the vowel formants accounted for the evaluations of English speaker production of non-native Thai words.

This study examines if 1) the vowel formants of Japanese native speaking learners of English differ significantly from those of Native English speakers, and 2) if the vowel formants were related to native speaker evaluations of non-native pronunciation.

83 Japanese native speakers who were studying English from two universities participated in this study. Fifteen native speakers of American varieties of English also were recruited for this stud. Seventeen words were selected for this study which represented 10 vowels. The speech samples were collected in a studio and recorded at 48,000 kHz using a Sony DAT and a condensing microphone. Each word was presented on a power-point slide with the instruction to say each word out loud. 1666 (17 words X 98 participants) samples were presented to two Native English speakers. Each word was rated for the goodness of pronunciation on a five-point scale. (Interrater reliability was .82). Using a Praat script, the F1, F2, and F3 formants were extracted for each of the 1666 samples. The difference from native speakers and Japanese non-native speakers was investigated. This was followed up with linear multiple regression to determine if the vowels acoustic information accounted for the pronunciation evaluations.

The results of the comparison show that Japanese speakers differ significantly in the English pronunciation on either one or both of the formants in 10 of the 17 words. The results of the regression analysis show that the first three vowel formants accounted for up to a to a maximum of 36% of the variance.

The results demonstrate that 1) unsurprisingly, non-native speakers differ in their formants when compared to native speakers, and 2) native speakers use acoustic information in the form of the first three formants to evaluated the goodness of pronunciation of second language speakers.

This result is important because it demonstrates that native speakers do take the acoustic information of vowels into account during evaluation, indicating that segmental sounds are also important, in contrast to Munro and Derwig (1995). These results are discussed in terms of the acquisition processes of second language vowels, and applications to second language education. Future research needs to focus on different acoustical parameters, and a larger variety of speech samples to further determine which aspects of non-native speech are important when evaluated by native speakers.

References

Munro M. J. and Derwing T. M. 1995. Foreign Accent, Comprehensibility, and Intelligibility in the Speech of Second Language Learners. Language Learning 45, 73-97.

Oyama, S. 1976. A sensitive period for the acquisition of a nonnative phonological system. Journal of Psycholinguistic Research 5, 261-283.

Piske, T., MacKay, I. R. A., and Flege, J. E. 2001. Factors affecting degree of foreign accent in an L2: A review. Journal of Phonetics 29, 191-215.

Purcell, E. T., and Suter, R. W. 1980. Predictors of pronunciation accuracy: A re-examination. Language Learning 30, 271-287

Sheppard, C., Hayashi, C., and Ohmori, A. 2007. Factors Accounting for Attainment in Foreign Language Phonological Competence. International Congress of Phonetic Sciences 2007, 1597 – 1600, Saarbrucken, Germany.

Wayland, R. 1997. Non0native Production of Thai: Acoustic Measurements and Accentedness Ratings. Applied Linguistics 18, 345-373.

Referent introduction as a multi-step process – a view from spoken Israeli Hebrew

Leon Shor

(Tel Aviv University)

Most theories of referential choice seem to adopt a "literary" model of reference (Clark & Bangerter, 2004), whereby the act of referring is achieved as a one-step process controlled primarily by the speaker. Accordingly, the process of referent introduction is viewed as a relatively simple task, consisting of a single contribution (typically a lexical NP) by the speaker, after which the referential chain is maintained via reduced referential expressions. In fact, cases of multi-step referent introduction—in which the initial establishment of the referent involves several contributions, often collaboratively performed by the interlocutors—are rarely discussed in activation-oriented theories of referential choice (e.g., Chafe, 1994; Ariel, 2001; and Kibrik, 2011).

Nevertheless, studies that focus on referential processes in spoken English have shown that reference establishment should best be viewed as a dynamic and collaborative activity on the part of the discourse participants, often realized as a multi-step process aimed at establishing the referent as mutually accepted by the interlocutors (Clark & Wilkes-Gibbs, 1986; Tao, 1992). Based on this dynamic view of reference, I will argue that the introduction of referents in Israeli Hebrew conversation is not necessarily as straightforward as prominent theories of reference seem to suggest, since it is often realized as a multi-step-process, consisting of several contributions made by any of the interlocutors.

In this talk, I will present and discuss two main patterns that have emerged from the analysis of approximately 80 instances of multi-step referent introductions in *The Corpus of Spoken Israeli Hebrew (CoSIH).* The first pattern involves establishing the referent's identity through several steps, each of which either incrementally modifies the previous contribution (the referent 'mustard' in Example 1), or replaces it with another NP that is more accurately defined or appropriate (the referent 'trails' in Example 2):

(1) sp2 *atem   rotsim   χardal / im garʔinej χardal   / (0.5) **mitsorfat   /***
you(plm) want(plm) **mustard** / **with seeds_of mustard** / (0.5) **from_France** /
'Do you want **mustard**? **With mustard seeds**? (0.5) **From France**?'

(C711_1_sp2_028-030; Sp2 offers mustard during a family meal)

(2) sp1 *hakol   **ʃvilim** || **ʃvilej   afar** ||*
everything **trails** || **trails_of dirt** ||
'Everything is **roads**. **Dirt roads**.'

(OCh_sp1_192-193; Sp1 describes the roads in Mongolia)

The second pattern involves the modification, or the replacement, of the entire utterance that contains the referential expression. In this case, the speaker produces a second formulation of a prior utterance, either in order to address a problematic presumption manifested in the first formulation (the identifiability of the referent 'the new Holiday Inn' in Example 3), or in order to highlight a different

aspect of the message (giving more prominence to the identity of the referent 'gas station attendant' in Example 4):

These findings suggest that the process of referent introduction is sensitive to, and shaped by, the constraints imposed by conversational language, such as the need to plan, produce and edit speech on-line, often in collaboration with other interlocutors. In addition, adjusting the precision of reference formulation seems to be contributing to what is being done in the turn. Example 2, for instance, closes a segment in which sp1 tells about the bad public transport in Mongolia, and more specifically about the poor condition of the roads in the country. Following several amazed reactions to this description on the part of the recipient, sp1 reasserts his claim by describing the roads as *ʃvilim* 'trails'—in itself a negatively-biased description—and further intensifies the negative description by replacing the first formulation with *ʃvilej afar* 'dirt trails'. In Example 4, sp3 tells about her frequent visits to the gas station in order to corroborate her prior claim regarding the high cost of maintaining a private car. Here, restructuring the entire utterance intensifies her argument since her second formulation gives more prominence to the 'gas station attendant', drawing attention to the absurdity of her frequent visits to the gas station to the point that even the gas station attendant had noticed that.

To conclude, these findings suggest that the establishment of the referent's identity may be realized as a multi-step-process, in which one referential form is replaced or modified by another one. This process testifies to the speaker's attunement to possible problems with first formulations, and to the fact that selecting one referential form over another is often tailored to the specific action performed by the entire utterance in its situated context.

References

Ariel, M. (2001). Accessibility theory: An overview. In Sanders, T., Schliperoord, J. & Spooren, W. (Eds.), *Text representation* (pp. 29–87). Amsterdam and Philadelphia: John Benjamins.

Chafe W. (1994). *Discourse, Consciousness, and Time: The Flow and Displacement of Conscious Experience in Speaking and Writing*. Chicago, IL: University of Chicago Press.

Clark, H. H., & Wilkes-Gibbs, D. (1986). Referring as a collaborative process. *Cognition*, *22*, 1–39.

Clark, H. H., & Bangerter, A. (2004). Changing conceptions of reference. In Noveck, I. & Sperber, D. (Eds.), *Experimental pragmatics* (pp. 25–49). Basingstoke, England: Palgrave Macmillan.

Kibrik, A. A. (2011). *Reference in Discourse*. Oxford Studies in Typology and Linguistic Theory. Oxford: Oxford University Press.

Lerner, G.H., Bolden, G.B., Hepburn, A. & Mandelbaum, J. (2012). Reference recalibration repairs: Adjusting the precision of formulations for the task at hand. Research on language and social interaction, 45(2), 191–212.

Tao, H. (1992). NP intonation units and referent identification. *Proceedings of the Eighteenth Annual Meeting of the Berkeley Linguistics Society: General Session and Parasession on the Place of Morphology in a Grammar*, pp. 237–247.

The Corpus of Spoken Israeli Hebrew (CoSIH) http://cosih.com/english/index.html

Non-finites in early New Indo-Aryan: a multi-layered diachronic analysis

Krzysztof Stroński, Joanna Tokaj, & Saartje Verbeke

(Adam Mickiewicz University in Poznań; Adam Mickiewicz University in Poznań / Ghent University; & Ghent University)

The aim of the paper is to present the results of a research study on non-finite verbs in early stages of NIA with a focus on converbs (nonfinite verb forms marking adverbial subordination; cf. Haspelmath 1995). The notion of converb occupies a special place in Indo-Aryan scholarship. As an important areal feature, it has received proper attention in historical, typological as a well as theoretically oriented literature (cf. Dwarikesh 1971; Masica 1976; Schumacher 1977; Davison 1981; Kachru 1981; Tikkanen 1987; Peterson 2002; Subbarao 2012 among others). Our analysis focuses on the early NIA stage which has so far been understudied.

The corpus, tagged by means of IATagger (Jaworski 2014), comprises texts representing four dialectal groups, namely Rajasthani, Awadhi, Braj and Pahari consisting of 10000 words each dating from 15th-17th centuries (excerpted from Bhānāvat and Kamal 1997-1998; Gautam 1954; Joshi 2009; Vājpeyī 2009).

The methodological foundation of the research has been based on two frameworks: the RRG approach (Van Valin & LaPolla 1997; Van Valin 2005) and the 'multivariate analysis' (Bickel 2010). Even though both have synchronic and typological bias, they appear to be suitable for a diachronic analysis as well. The architecture of the IATagger enables combination of quantitative (statistical) methods applied to morphological, syntactic, semantic and pragmatic levels. As a result, it was possible to inspect the evolution of the converb's morphology, main argument marking in converbal chains, various types of junctures (nuclear, core and clausal), control properties of converbs, scope of select operators in converbal chains (e.g. IF and T scope).

Selected results of the analysis are the following:

a) the morphological complexity of the converbal forms has an uneven distribution among the early NIA dialects and it does not correspond to any functional variation (for example for Rajasthani, Stroński et al. in print);

b) the main argument marking in converbal chain constructions is always dependent on the transitivity of the main verb (unlike in some contemporary IA dialects); the O marking in non-finite verb constructions preceded the O marking in finite constructions; this order of appearance could be caused by the indifference of converbs to tense/aspect;

c) DOM had primary semantic motivation (i.e. based on animacy and definiteness as it is in modern IA (Aissen 2003; Verbeke 2013)) at quite early stages but its final establishment occurred in different periods in various dialectal groups;

d) DSM had primary grammatical motivation (transitivity of the main verb) but secondary factors such as animacy and definiteness cannot be excluded (cf. de Hoop and Narasimhan 2009);

e) the same subject constraint was basically preserved but there are examples of its violation, which may receive a functional explanation (cf. Tikkanen 1995).

f) the scopal properties of IF and T operators are quite stable across the centuries, T scope being heavily dependent on the tense of the main verb.

The facts observed on non-finite constructions are of major importance for deeper understanding of the historical morphosyntax of IA languages but they also bring interesting implications for the theory of language change in general.

References

Aissen, Judith. 2003. Differential object marking: Iconicity vs. Economy. *Natural Language & Linguistic Theory* 21:435–448.

Bhānāvat, N. and Kamal, L. (eds.). 1997–1998. Rājasthānī gadya: vikās aur prakāś. Āgrā: Śrīrām Mehrā end Kampanī. (R.G.)

Bickel, Balthasar. 2010. Capturing particulars and universals in clause linkage: a multivariate analysis. In: Bril, I. (ed.) Clause Linking and Clause Hierarchy : Syntax and Pragmatics. Amsterdam, 51 - 102.

Davison, Alice. 1981. "Syntactic and semantic indeterminacy resolved: a mostly pragmatic analysis for the Hindi conjunctive participle". In: Cole Peter (ed), 1981. Radical pragmatics. New York: Academic Press, 101–128.

Dwarikesh, D. P. 1971 . Historical syntax of the conjunctivc participle phrase in New Indo-Aryan dialects of Madhyadesa (Midland) of northern India. (University of Chicago Ph.D . dissertation).

Gautam, M. 1954. *Jāyasī granthavalī*. Dehli: Rigal Buk Ḍipo. (J.)

Haspelmath, Martin. 1995. The converb as a cross-linguistically valid category. In Haspelmath Martin and König Ekkehard(eds.). *Converbs in Cross-linguistic perspective.* Berlin: Mouton de Gruyter. 1-56.

de Hoop, Helen and Narasimhan, Bhuvana. 2009. Ergative case-marking in Hindi. In: de Hoop, Helen, and Peter de Swart eds. 2009. *Differential subject marking*. Dordrecht: Springer. 63-78.

Jaworski, Rafał. 2015. IATagger. http://rjawor.vm.wmi.amu.edu.pl/tagging/

Joshi, Maheshwar P. 2009. 'Advent of Polities in Uttarkhand (Kumaon and Garhwal)'. In Marie Lecomte-Tilouin (ed.) *Bards and Mediums: History, Culture, and Politics in the Central Himalayan Kingdoms*. Almora: Shri Almora Book Depot. 327–371.

Kachru, Yamuna. 1981. On the Syntax, Semantics and Pragmatics of the Conjunctive Participle in Hindi –Urdu. Studies in Linguistic Sciences 1981, Volume 11. Number 2, 35-49.

Masica, Colin P. 1976. *Defining a linguistic area. South Asia*. Chicago and London: Chicago University Press.

Peterson, John. 2002. The Nepali converbs: a holistic approach. In: Rajendra Singh (ed.): Yearbook of South Asian Languages and Linguistics. New Delhi/Thousand Oaks/London: Sage Publications. 93-133.

Schumacher, Rolf. 1977. *Untersuchungen zum Absolutiv in modernen Hindi*. Frankfurt a.M.: Lang.

Subbarao, Kurumuri V. 2012. *South Asian languages: a syntactic typology.* Cambridge: Cambridge University Press.

Stroński Krzysztof , Tokaj Joanna, Verbeke Saartje. (in print). A diachronic account of converbal constructions in Old Rajasthani. In: Michela Cennamo and Claudia Fabrizio eds. *Historical Linguistics. Selected papers from the 22st International Conference on Historical Linguistic, Naples* 27-31 July 2015.

Tikkanen Bertil 1987. *The Sanskrit gerund: a synchronic, diachronic and typological analysis*. Studia Orientalia, 62, Helsinki.

Tikkanen, Bertil. 1995. Burushaski converbs in their South and Central Asian areal context. In Matin Haspelmath and Ekehard König (eds.). *Converrbs in Cross-linguistic perspective.* Berlin: Mouton de Gruyter. 487-528.

Vājpeyī, S. (ed.), 2009. Sūrsāgar. Kāśī: kāśī nāgarī pracāriṇī sabhā.

Van Valin, Robert and LaPolla, Randy. 1997. *Syntax*. Cambridge: Cambridge University Press.

Van Valin, Robert. 2005. *Exploring the Syntax–Semantics Interface*. Cambridge: Cambridge University Press.

Verbeke Saartje 2013. *Ergativity and alignment in New Indo-Aryan languages*. Berlin-New York: Mouton de Gruyter.

Acoustic quantitative rhythmic features of Persian poetry

Vahideh Abolhasani Zadeh & Nafiseh Taghva

(Shahid Bahonar University of Kerman Payame Noor University, Iran)

In spite of long history study of rhythm in poetry (Patel, 2010:118), acoustic consideration of poetry rhythm is rare. This study is an attempt to identify the acoustic-phonetic differences between various types of Persian poetry rhythm. Interval-based method is a way of studying rhythmic features in which the contrasting durational differences of vocalic-intervals and intervocalic-intervals of utterances can be measured in order to classify rhythm of languages in two groups of syllable-timed and stress-timed languages (Patel; 2010, Grabe and Low; 2002, Ramus et al.; 2002). Moreover, Farsi is widely acknowledged by linguists to have rhythmic organization of syllable-timed languages (Haghshenas, 2004; Abolhasani Zadeh et al., 2013). Although Persian classical poetry is based on Arabic prosody (Lazar, 2005; Sadeghi, 1975) which is a stress-timed language (Ghazali et al., 2002; Hamdi et al., 2004) Persian modern poetry change his way from the old one (Hasan Lee, 2005). In this research, quantitative rhythmic features of Persian classical and modern poetry have been considered based on one of the approaches of interval-based method which is PVI, Pairwise Variability Index. Grabe and Low (2002) introduced PVI as a variable duration measure. It measures the absolute value of the difference between each successive pair of durations in a sequence by the combination of vocalic nPVI (1), normalized Pairwise Variability Index, and intervocalic rPVI (2), normalized Pairwise Variability Index (Patel; 2010, Grabe and Low; 2002, Dellwo, 2006; Nolan & Asu, 2009).

(1)

$$nPVI = \frac{100}{m-1} \times \sum_{k=1}^{m-1} \left| \frac{d_k - d_{k+1}}{\frac{d_k + d_{k+1}}{2}} \right|$$

Where m is the number of vocalic intervals in an utterance and d_k is the duration of the kth interval.

(2)

$$rPVI = \frac{100}{m-1} \times \sum_{k=1}^{m-1} \left| d_k - d_{k+1} \right|$$

Where m is the number of inter- vocalic intervals in an utterance and d_k is the duration of the kth interval.

Consequently, to consider the rhythmic features of Persian classical poetry 40 hemistiches from master poets of this genre of Persian poetry were chosen. Each hemistich contained only one simple declarative Persian sentence, as well as 40 simple declarative sentences of Persian modern poetry, that is divided into three main types (Hassan Lee, 2005) of Moderate poetry, Sepid poem and New Wave poem. These sentences were analyzed in Praat software. Then TextGrids were made for each sentence in a way that the boundaries of vocalic intervals and intervocalic intervals were determined. Afterward, the durational contrasts of these intervals were measured by nPVI and rPVI (Figure 1).
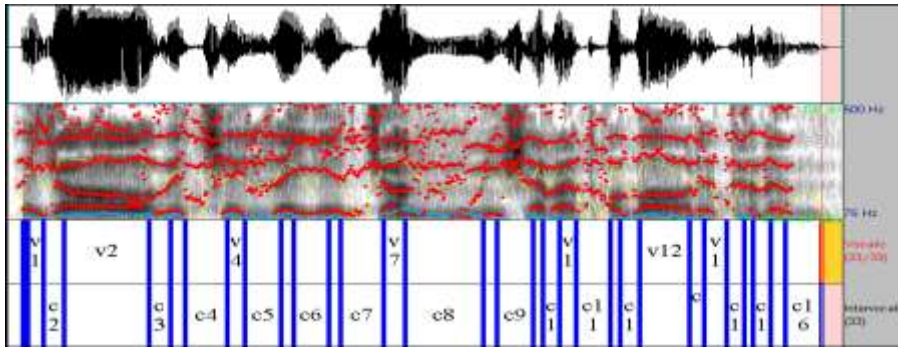
Figure 1: An example of a simple declarative Persian classical sentence TextGrid. / hegabe čehreje gan mišævæd qobare tænæm/ (Hafez, 2013).

At last, the results were compared to Farsi language as a syllable-timed language (Abolhasani Zadeh et al., 2013) and Dutch as a true representative of stress-timed languages (Grabe and Low, 2002; Ladefoged and Johnson, 2011). The results of this study demonstrated that the outcomes of Persian modern poetry quantitative rhythmic features are closer to Farsi language in comparison with Persian classical poetry, which is closer to the stress-timed languages, such as Dutch. Therefore, Persian classical poetry locates among the stress-timed languages, while the Persian modern poetry contains the closer quantitative rhythmic features toward Farsi.

References

Abolhasani Zadeh, V., Taghva, N. Sharifi Moghadam, A. & Golshan, A. (2013). Effect of Farsi Language on Iranian traditional music. *Annali*. Universita di Napoli: Napoli.

Dellwo, V. (2006). Rhythm and Speech Rate: A Variation Coefficient for DeltaC. *in Language and Language-Processing: Proceedings of the 38th Linguistics Colloquium.* Piliscsaba 2003, edited by P. Karnowski and I. Szigeti (Peter Lang, Frankfurt am Main), 231–241.

Ghazali, S., Hamdi, R. and Barkat, M. (2002). "Speech Rhythm Variation in Arabic Dialects". *Proceedings of speech prosody*. France: Aix en Province.

Grabe, E. & Low, L. (2002). Durational Variability in Speech and the Rhythm Class Hypothesis. *In C. Gussenhoven & N. Warner, Laboratory phonology.* Berlin: Mouton de Gruyter, 515–546.

Hafez, Sh. (2013). *Hafez' Divan, based on Allame Mohammad Ghazvini*. Tehran: Doran.

Haghshenas, M. (2004). *Phonetics*. Tehran: Aghah Publishing.

Hamdi, R., Barkat, M., Ferragne, E. and Pellegrino, F. (2004). "Speech Timing and Rhythmic Structure in Arabic Dialects: a comparison of two approaches". *Proceedings of the ICSLP*.

Hasan Lee, K. (2005). *Innovation in Iran contemporary poetry*. Tehran: Sales.

Ladefoged, P. & Johnson, K. (2011). *Course in Phonetics (6th ed.)*. Wadsworth: Boston, 252-253.

Lazar, H, (2005), Farsi contemparory grammar. Tehran: Hermes

Nolan, F. & Asu, E. (2009). The Pairwise Variability Index and Coexisting Rhythms in language. *Phonetica*. 66, 64–77.

Patel, A.D. (2010). *Music, Language, and the Brain*. New York: Oxford University Press.

Ramus, F., Nespor, M., and Mehler, J. (1999). Correlates of linguistic rhythm in the speech signal. *Cognition*, 75, 265–292.

Sadeghi, A. (1979). Evulution of Farsi language. Tehran: Islamic Azad University.

Verbless *kakoj*-exclamatives in Russian: Evidence from Usage Data[15]

Anna Vishenkova & Natalia Zevakhina

(National Research University Higher School of Economics, Russia)

Exclamation conveys the speaker's attitude towards some state of affairs which usually violates the speaker's expectations. Exclamatives have been acknowledged to be a distinct clause type (Koenig and Siemund 2007, 2013 a.o.). Recently, there has been an increase of interest in studying verbless (or reduced) exclamatives which are claimed to be a non-prototypical clause type (see Siemund 2015 for English *what*-and-*how*-exclamatives).

The goal of the paper is to reveal morphosyntactic, lexical, and prosodic features of Russian *kakoj* 'what' verbless exclamatives (e.g., *Kakoj zam'ečatel'nij večer!* 'What a wonderful evening!') relying upon the data from the Russian National Corpus (www.ruscorpora.ru).

All in all, around 4600 exclamatives were analyzed with their further partition into the following types of constructions (hereinafter C#1–C#4):

- *Kakoj* NP!
- *Kakoj* NP AP!
- *Kakoj* particle NP!
- *Kakoe* (particle) NP/VP/AP/AdvP/NumP!

C#2 is derived from C#1 via movement of an AP from an NP to the right periphery of a clause. C#3 conveys a negative tone attitude of the speaker towards some state of affairs: unlike Russian C#1, which is basic and tone-neutral, C#3 contains particle *už*, *tam*, or *tut* or their combinations and is prosodically marked with an IC-7 according to Bryzgunova (1980)'s classification of intonation contours (IC). Finally, C#4 contains indeclinable neutral-gender *kakoe* which shows cross-categorial compatibility. Interestingly, C#1–C#3 are grammatical only with gradable APs, whereas C#4 is compatible also with non-gradable APs and, moreover, with comparatives/superlatives of gradable APs.

From a morphosyntactic point of view, firstly, Nominative is the most frequent, if not the solely possible, case for an NP in all construction types: e.g., for C#1 with a bare NP, Nominative exclamatives comprise 1635 out of 1696 instances. Genitive and Instrumentalis are restricted to idiomatic expressions, whereas the other cases are quite rare. Secondly, if elided, abstract nouns are absolutely ungrammatical in any type of verbless exclamatives. Moreover, if elided, nouns (regardless of whether they are abstract or concrete) are ungrammatical in any type of verbless exclamatives with two adjacent adjectives.

From a lexical point of view, affective nouns are the most frequent: e.g., for C#1 with a bare NP, exclamatives with such nouns comprise 1151 out of 1696 instances. Among them, the number of negative tone nouns is 784 instances out of total 1151 instances. C#3 and C#4 are possible only in negative tone contexts, e.g., in contexts of objection.

As for the contexts where exclamatives can occur, their range is much wider than the well-established function of the violation of the speaker's expectations: admiration, expressive amazement, disgust and objection. These functions are also intonationally marked: IC-3, IC-5, IC-6 mark the contexts of admiration, amazement and disgust, whereas IC-7 is used for the context of objection.

References

Koenig, E. & P. Siemund. 2007. In *Language typology and syntactic description*, V.1, 276–324. Cambridge: Cambridge University Press.

Koenig, E. & P. Siemund. 2013. *Satztypen des Deutschen*, 846–873. Berlin: Mouton de Gruyter.

Michaelis, L., & K. Lambrecht. 1996. *Language* 72:2, 215-247.

Bryzgunova, E.A. 1980. In *Russkaya Grammatika* [Russian Grammar]. Moscow: Nauka.

Siemund, P. 2015. *Studies in Language,* 39:3, 698-728.

Postposed demonstrative in Veps, North Russian and Ancient Novgorod Slavic dialects: a historical comparative investigation

Chingduang Yurayong

(University of Helsinki)

This poster presentation introduces the results from a Master's thesis that studies the use of demonstrative in the head-final position in Veps and North Russian (= NRus) dialects as well as in the Ancient Novgorod Slavic dialect (= NovgSlav). The background is a substrate hypothesis, according to which the use of the postposed demonstrative (= PostDem) *-to* in NRus dialects has evolved under the influence from Finno-Ugric neighbouring languages (Kiparsky 1967 & 1969, Veenker 1969), e.g., *-se* and *-ne* in spoken Veps (Larjavaara 1986). However, some other scholars consider the PostDem as an archaic feature in Slavic languages (Vahros 1951, Vaillant 1977). Today, according to the prevalent view, the emergence of this feature is unlikely to be inherited, but results rather from areal diffusion (Leinonen 1999, Kasatkina 2007). The goal of this study is to evaluate these hypotheses with empirical data.

This study investigates the use of PostDems in Veps and NRus dialects with a focus on pragmatic functions. The Veps and NRus data are comprised of materials of spoken language collected during the 1960s, while the NovgSlav data are represented by the Novgorod Birch Bark documents. A quantitative analysis takes into account 200–300 demonstratives in all positions from each language. The frequency of use sheds the light on general tendencies how the constructions with the PostDem behave in each language. The results show that the PostDems in Veps and NRus dialects similarly serve in non-deictic functions as a topic-switcher or emphatic focus particle. In contrast, NovgSlav dialect mostly uses PostDems in a deictic function to express contrast. However, the NRus data also show a potential of the PostDem eventually becoming a definite article as the expression of reference tracking is often observed in the data.

Diachronically, the PostDem in Veps and NRus dialects could not arise before the 15th century as these non-deictic functions are not widely observed in older Finnic sources neither in the the Novgorod Birch Bark documents. Moreover, speakers of Veps employ this construction more frequently than speakers of the closely related Karelian and Ludic. In a lower degree, the PostDem is also observed in Eastern Saami languages (Rießler et al. 2005+) and Finnish dialects, as well as similar demonstrative-based constructions of definite declension in Mordvin and definite particle in Komi. In addition, the similar set of functions can also be expressed by possessive suffixes in Eastern Finno-Ugric, Turkic, Mongolic and Tungusic languages. On the Slavic side, this set of functions of PostDem in NRus dialects does not either fully correspond to the definite articles in Balkan Slavic languages (cf. e.g. Mladenova 2007).

As a result, this study shows that the PostDem in NRus dialects is not a Finno-Ugric substrate feature because it is not either a common feature among the Finno-Ugric languages. Rather, this is an areal feature in a larger linguistic area of North Russia, which emerged from mutual reinforcement (cf. Balkan *Sprachbund*, Lindstedt 2000) between local Slavic and Finno-Ugric dialects that have been in intensive contacts during the past millennium.

References

Kasatkina. 2007. = Касаткина, Р. Ф. Псевдоартикль и предартикль в севернорусских говорах. In J. Nuorluoto (ed.), Topic on the Ethnic, Linguistic and Cultural Making of the Russian North (Slavica Helsingiensia 32). Helsinki. 101–110.

Kiparsky, Valentin .1969. Gibt es ein finnougrisches Substrat im Slavischen?. Annales Academiae Scientiarum Fennicae, series B 153/4. Helsinki.

Larjavaara, Matti. 1986. Itämerensuomen demonstratiivit I: karjala, aunus, lyydi ja vepsä. Helsinki: Suomalaisen Kirjallisuuden Seura.

Leinonen, Marja. 1998. The postpositive particle -to of Northern Russian dialects, compared with Permic languages (Komi Zyryan). In Papinniemi, Lindstedt & Pesonen (eds.), Studia Slavica Finlandensia Tomus XV. Helsinki: Institute for Russian and East European Studies. 74–90.

Lindstedt, Jouko. 2000. Linguistic Balkanization: Contact-induced change by mutual reinforcement. In Gilbers, Nerbonne & Schaeken (eds.), Languages in Contact. Studies in Slavic and General Linguistics Vol. 28. Amsterdam: Rodopi. 231–246.

Mladenova, Olga M. 2007. Definiteness in Bulgarian: Modelling the processes of language change. Trends in Linguistics, Studies and monographs 182. The Hague: Walter de Gruyter.

Rießler, Michael et al. 2005+. Kola Saami Documentation Project. The Language Archive (TLA). Nijmegen: Max Planck Institute for Psycholinguistics. http://dobes.mpi.nl/projects/sami/. (14.1.2017).

Vahros, Igor. 1951. Der Artikel im Russischen. In Långfors & Katara (eds.), Neuphilologische Mitteilungen. Helsinki. 30–44.

Vaillant, André. 1977. Grammaire comparée des langues slaves. Tome 5, La syntaxe. Paris: Klincksieck.

Veenker, Wolfgang. 1967. Die Frage des finnougrischen Substrats in der russischen Sprache (Uralic and Altaic Series Vol. 82). Bloomington: Indiana University Publications.

Causative morphology and pain predicates in Hill Mari[16]

Daria Zhornik & Irina Khomchenkova
(Moscow State University)

Pain predicates, as pointed out in [Reznikova et al. 2012], represent an unusual semantic field, as most of its lexemes appear to be secondary predicates and compose the peripheral part of the domain, while original pain predicates are few and restricted to 3-5 lexemes at most (see, for instance, English with its basic predicates *ache* and *hurt* or Russian with the only primary verb *болеть*). Secondary pain predicates are borrowed from various domains, such as sound, burning, movement and its causation

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etc. (e.g., *my ears are ringing, my eyes are burning*). Their transfer to the domain of pain has been claimed to be a new type of semantic shift called "rebranding" (in terms of [Rakhilina 2010; Reznikova et al. 2012; Reznikova et al 2013]), which means that they lose most of their original features, while acquiring new ones from their new domain (not only new semantics, but also new aspectual and constructional features, which differentiates them from a prototypical metaphor).

In our talk we will discuss the data from Hill Mari (< Finno-Ugric) which provide a new empirical confirmation to the analysis of the semantic shift undergone by pain verbs. Besides, our material demonstrates some properties of Hill Mari causatives, which are non-standard within the system of this language.

The case of Hill Mari is challenging, as not a single verb can be classified as an original pain predicate. The dominant pain verb in Hill Mari is *karštaš* 'to hurt'. While etymologically it bears the semantics of pain, morphologically it is derived and thus cannot be called primary. The derivational means here is the old causative suffix *-t-* (see Meadow Mari *koržaš* 'to hurt'), which exhibits rather unexpected behaviour. Causative derivatives are supposed to function in a transitive construction, while *karštaš* is only used as an intransitive verb.

(1) *malə̂n tagače mə̂n'-ə̂n   vuj-em   tenge karšt-a*[17]
    why   today   1sg-gen   head-poss.1sg so   hurt-npst.3sg
    'Why does my head hurts so much today?'

Hill Mari has three causative suffixes, two of which are of a Finno-Ugric origin (*-t-*, *-ə̂kt/ə̈kt-*), while the third one (*-tar-*) was borrowed from the neighbouring Turkic languages ([Galkin 1966]). The suffix *-t-* is of an older origin and is mainly found in lexicalized verbs, as it no longer functions to form new lexemes. In the field of pain predicates we witness another opposition: the borrowed suffix *-tar-* is only used in transitive constructions with verbs of pain (which is an expected pattern), while the other two suffixes can be used in both transitive and intransitive constructions. Such behaviour of causative affixes has not been attested in other semantic fields.

(2) *vas'a-mlepkä-žə̈-m   mükš čengäl-en   čengäl-mə̈   jə̂la-t-a*
    V.-acc forehead-poss.3sg-acc bee   sting-prt.3sg   sting-nzr
    burn-caus-npst.3sg
    'A bee stung Vasya in the forehead. The sting burns'.

On the one hand, in the case of intransitive constructions causative morphology may have no transparent semantic effect. On the other hand, it may have certain semantic flavours, mainly the intensification of the sensation described by the stem:

(3) *mardež-eš   licä-m   čažgə̂z-ə̂kt-a   /   cažgə̂ž-tar-a*
    wind-lat   face-acc   burn-caus-npst.3sg   burn-caus-npst.3sg
    'Because of the wind the face burns'.

Moreover, a pain predicate may undergo double causativization, in the case of which the construction is inevitably transitive with *-tar-* as the only possible second suffix. With verbs of other semantic classes *-ə̂kt/ə̈kt-* may also freely function as a second causative.

The case described above proves the idea of "rebranding": in Hill Mari, losing transitivity is common for verbs after the transfer to the field of pain. Even causative derivatives, the essential feature of which is transitivity, lose their original diathesis while acquiring a new one from the recipient domain. The suffix *-tar-*, which is the newest of the three causative morphemes, did not undergo this process, probably due to its late origin. The study sheds new light on the typology of pain predicates, as their derivational patterns have not yet been profoundly investigated. More generally,

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[17] Our examples come from the data collected in the village of Kuznecovo (Mari El Republic, Russia) in 2016.

our data highlights the importance of studying lexical restrictions in grammar, as well as the need to point out particular grammatical traits in lexicographic descriptions.

References

[Galkin 1966] Galkin, I. *Istoricheskaya grammatika marijskogo yazyka, chas't' 2* [Historical Grammar of Mari, Part 2] // Yoshkar-Ola, 1966

[Rakhilina 2010] Rakhilina, E. *Lingvistika konstrukcij* [Construction Lingustics] // Moscow, Azbukovnik, 2010

[Reznikova et al. 2012] Reznikova, T., Rakhilina, E., Bonch-Osmolovskaya, A. *Towards a typology of pain predicates* // Linguistics 50–3, 421 – 465, Walter de Gruyter, 2012

[Reznikova et al 2013] Reznikova T., Rakhilina E. V., Karpova O., Arkhangelskiy T., Kyuseva M., Ryzhova D. *Polysemy Patterns in Russian Adjectives and Adverbs: a Corpus-Oriented Database* // Current Studies in Slavic Languages. Philadelphia, Amsterdam: John Benjamins Publishing Company, 2013. P. 313-322.

Code-switching on a BBC Gujarati radio programme

Lena Zipp
(University of Zurich)

In this poster, I set out to analyze and visualize the discourse functions of code-switching (CS) in the speech of the host of the BBC Asian Network's eponymous *Alpa Pandya Show*. Based on data from 36 archived radio shows dating from 2013, I trace how the mediality and context of the speech situation influence the speaker's alternating use of Gujarati and English, against the backdrop of my assumption that the local "unmarked" style of speaking for the projected young audience of the show consists of a mixed language style in which CS between the two languages indexes local diasporic identity (Zipp fc.).

In particular, I identify intra-sentential switches that have been claimed to spearhead the transition from (marked) CS to (unmarked) language mixing, such as switches used for emphatic repetitions, to highlight relevance or to indicate personal involvement (see Myers-Scotton 1993, Auer 1999, Sebba & Wootton 1998), and contrast these with inter-sentential switches that are very specific to the nature of the radio programme and its extended listenership beyond the Gujarati community (e.g. calls to action, requests or information), as well as clearly insertional, typically isolated lexemes used in the same way as borrowings (see Poplack 1980).

My results lend themselves to the discussion of identity construction in multilingual Europe, particularly in the second and third generation British Asian diaspora. This discussion puts inherently multilingual styles such as language mixing at the center of local community practices of speaking, hypothesizing that they represent a semiotic "*third space* – linguistic hybridity – [which] gives rise to possibilities for new meanings and, at the same time, presents a mechanism to negotiate and navigate between a global identity and local practices" (Bhatt 2008: 182, also see Auer 2005). In addition, my study also highlights the role of mass media in providing wide-reaching opportunities for identity realignment, thus homogenizing social perceptions of exemplary speech models (see Agha 2007, Coupland 2014), while at the same time adding very specific, audience or referee-based restrictions on the use of non-standardized, mixed language (see Bell 2001).

References

Agha, Asif. 2007. Language and Social Relations. Cambridge: Cambridge University Press.

Auer, Peter. 1999. From codeswitching via language mixing to fused lects toward a dynamic typology of bilingual speech. *International Journal of Bilingualism* 3(4). 309–332.

Auer, Peter. 2005. A postscript: Code-switching and social identity. *Journal of Pragmatics* 37: 403–410.

Bell, Allan. 2001. Back in style: Reworking audience design. In Penelope Eckert & John R. Rickford (eds.), *Style and Sociolinguistic Variation*, 139–169. Cambridge: Cambridge University Press.

Bhatt, Rakesh M. 2008. In other words: Language mixing, identity representations, and third space. *Journal of Sociolinguistics* 12(2). 177–200.

Coupland, Nikolas. 2014. Sociolinguistic change, vernacularization and broadcast British media. *Mediatization and Sociolinguistic Change*. Berlin: De Gruyter, 67–96.

Myers-Scotton, Carol. 1993. Common and uncommon ground: Social and structural factors in codeswitching. *Language in Society* 22(4). 475–503.

Poplack, Shana. 1980. Sometimes I'll start a sentence in Spanish y termino en Español: Toward a typology of code-switching. *Linguistics* 18(7–8). 581–618.

Zipp, Lena. Forthcoming. Code-switching in the media: Identity negotiations in a Gujarati diaspora radio programme. In: Brook Bolander and Till Mostowlansky (eds.). Special issue of *Journal of the Sociology of Language*.

WORKSHOP PRESENTATIONS

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WORKSHOP 1

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Accommodation in verbal and nonverbal behavior

Wolfgang Kesselheim & Agnes Kolmer
(University of Zurich)

This workshop explores the manifestations and consequences of verbal and non-verbal accommodation in conversational interaction. Accommodation can be described as the interactants' tendency to become more (convergence) and sometimes less similar (divergence) to each other in conversational interaction. Accommodation has been documented at different linguistic levels, and a number of non-verbal behaviors such as co-speech gestures, body posture, and visual contact have been suggested to facilitate rapport, mutual liking, and coordination of collaborative tasks.

The aim of this workshop is to bring together researchers working on verbal or non-verbal accommodation. In particular, we are interested in bridging the gap between quantitative and qualitative approaches to accommodation research and discuss more general, overarching questions regarding the manifestations and consequences of accommodation.

Short-term Accommodation of Non-native English Speakers: A Perspective of Second Language Acquisition

Wenling Grace Cao, Paul Foulkes, & Márton Sóskuthy
(University of York, UK)

Short-term accommodation is viewed as an approach to shorten social distances between interlocutors in sociolinguistics (Communication Accommodation Theory, Giles, Coupland and Coupland 1990), or as an automatic processing mechanism in dialogue conversation (Pickering and Garrod 2004). As most of studies focus on accommodation between native speakers with different dialects, there is a gap of research on accommodation between native and non-native speakers.

If acquiring a second language is seen as an accumulative outcome of thousands of short-term accommodation from language learners to native speakers, understanding the mechanism of short-term accommodation of non-native speakers would shed light on Second Language Acquisition (SLA) as an outcome of long-term accommodation.

Present study proposes a new dimension of investigating phonetic accommodation from SLA. It aims to answer two research questions. First, whether and how do L2 English speakers accommodate to two native English accents after one-hour's exposure? Second, would theories developed from SLA (e.g. Speech Learning Model (SLM), Flege 1995) be able to predict the accommodation patterns?

Twenty Hong Kong English (HKE) speakers conducted a Map Task with a native speaker of Standard Southern British English (SSBE) and a native speaker of General American English (GenAmE) respectively. The participants were told to draw a route and fill the missing landmarks on their maps by communicating with the native interlocutors. Their production of two target vowels (/ɔ:/ as in <thought> and /ɑ:/ as in <pass> in SSBE) and four HKE features (final stop deletion, /θ/ is

realized as [f], devoicing of /z/ and non-rhoticity) were recorded before, during and after the Map tasks. Each Map task lasted for approximately 1 hour.

Acoustic analysis is carried out to quantify the participants' pronunciation changes from Pre-task to Post-task. For vowels, formant values (F1 and F2) are extracted from the mid-point of the target vowels. For the HKE features, percentages of the final stop deletion and rhoticity are calculated, spectral moments of /θ/ are measured, and duration and intensity of /z/ are calculated. Statistical analysis is then carried out to compare the participants' performances in Pre-task, Map task and Post-task, and the accommodation differences between exposure to a SSBE speaker and a GenAmE speaker.

We expect that the HKE speakers will accommodate to the native speakers on the target vowels. As SLM' predicts, the more similar a target language category is to an L1 category, the more likely it will be equated to an L1 category, which will lead to a less native L2 performance (Flege 1995). If SLM is able to predict the accommodation patterns, the HKE speakers will accommodate more to the accent which is less similar to the participants' own pronunciations. For example, those participants who speak a British-like accent will accommodate more to the GenAmE speaker on the target vowels.

Accommodation to the native accents is also expected on the HKE features; however, as the input is not sufficient for the participants to establish a new category, changes are more likely to be observed on acoustic level rather than on phonological level.

References

Flege, J. E. (1995). Second language speech learning: Theory, findings, and problems. *Speech perception and linguistic experience: Issues in cross-language research*, 233-277.

Giles, H., Coupland, J., & Coupland, N. (1991). *Contexts of accommodation: Developments in applied sociolinguistics*. Cambridge University Press.

Pickering, M. J., & Garrod, S. (2004). Toward a mechanistic psychology of dialogue. *Behavioral and brain sciences*, 27(02), 169-190.

Phonetic Accommodation in British English:
Implications for Forensic Speaker Comparisons

Katherine Earnshaw
(University of Huddersfield)

This study investigates whether specific phonetic features in British English are susceptible to accommodation. The motivation behind this study is to consider accommodation in the context of Forensic Speaker Comparison (FSC) casework and highlight where caution must be taken. A person's speech will most likely vary depending on whether they are talking to a criminal accomplice or being interviewed by the police and therefore differences may arise between the criminal and suspect samples which could be accounted for by accommodation. The speech of 12 participants from the West Yorkshire Regional English Database (WYRED) (Gold et al., 2016), is examined to see how two phonetic parameters are influenced by accommodation effects.

Table 1 presents the tasks that each participant was recorded undertaking and provides details of the participants' interlocutors. WYRED contains recordings of male speakers who grew up and went to school in one of three metropolitan boroughs of West Yorkshire, Northern England: Bradford,

Kirklees and Wakefield. All speakers are aged between 18 and 30, have English as their first and only language and were raised in an English-only speaking household.

Table 1. Studio quality recordings from WYRED used in this investigation

Task	Speech Style	Interlocutor	Duration
1 – Mock Police Interview	Formal, Spontaneous	Female researcher from Gateshead (same for all speakers)	~ 20 minutes
3 – Casual Paired Conversation	Relaxed, Spontaneous	Male participant from the same borough (different for all speakers)	~ 20 minutes
4 – Answer Message	Time-constrained, Spontaneous	N/A	~ 2 minutes

In order to determine if and how the participants are accommodating to their interlocutor, realisations of the FACE vowel and the voiceless dental plosive /t/ in word-medial and word-final positions have been analysed. These parameters were selected as they are believed to have some of the highest levels of variation in West Yorkshire English speech (Wells, 1982; Petyt, 1985; Hughes et al., 2012). To establish how susceptible these features are for accommodation, auditory and acoustic phonetic analysis was conducted in Praat using the speech of the participants, and their respective interlocutors across multiple tasks. Vowel tokens were hand-segmented and analysed acoustically by measuring midpoint formant values, whereas /t/ realisations were categorised as either [t], [ʔ] or [ɾ] using auditory analysis.

Participants' phonetic realisations were compared across tasks in order to identify the level of intra-speaker variation present. It is this intra-speaker variation that can provide insightful information for FSC cases. For instance, if most participants display a higher frequency of [ʔ] for /t/ when interacting with a speaker who has the highest usage of this variant, this could indicate that the way /t/ is realised is highly influenced by accommodation effects. This would therefore provide motivation to consider how a police interviewer realises /t/, when analysing this feature in criminal and suspect samples for FSC analyses.

It is anticipated that the results of this investigation will indicate whether it would it be beneficial to routinely consider elements of the speech of other interlocutors when conducting FSC casework. Additionally, it may reveal ways in which interlocutors, such as police interviewers or forensic phoneticians, should interact with suspects in order to improve the usability of reference speech samples.

References

Boersma, P. and Weenink, P. (2001). *Praat, a system for doing phonetics by computer*. www.praat.org.

Gold, E., Earnshaw, K. and Ross, S. (2016*). An Introduction to the West Yorkshire Regional English Database (WYRED).* In Transactions of the Yorkshire Dialect Society, edited by Kate Burland and Clive Upton.

Hughes, A., Trudgill, P. and Watt, D. (2012). *English accents and dialects: An introduction to social and regional varieties of English in the British Isles (5th Ed.).* London: Arnold.

Petyt, K. M. (1985). *Dialect and Accent in Industrial West Yorkshire*. Amsterdam: John Benjamins.

Wells, J. C. (1982). *Accents of English* (Vol. 1). Cambridge: Cambridge University Press.

Influence of rhythmic regularity on accommodation processes during conversations

Leonardo Barón Birchenall & Noël Nguyen

(Aix Marseille Univ, CNRS, LPL, Aix-en-Provence, France)

Within the changes exhibited by interlocutors during a conversation, *phonetic convergence* represents an increase in similarity in speech patterns that enables mutual adaptation. In some theoretical frameworks, this process occurs in an involuntary and immediate manner during interactions rather than intentionally (e.g. Louwerse et al., 2012). The present work focuses on the interplay between *speech rhythm* and phonetic convergence in an interactive task. Specifically, given that a repeated speech stimulus requires both less processing time and lower neural activation across repetitions, and that multiple repetitions significantly enhance memory and learning (Falk et al., 2014), we propose that *the use of regular rhythmic structures during conversations produces more convergence between speakers with respect to irregular rhythmic structures*.

To test our hypothesis, we created a set of stimuli consisting of four groups of 16 nine-syllable Spanish sentences each. Each group has a particular rhythmic structure, obtained through the arrangement of different types of words (oxytones, paroxytones, proparoxytones and unstressed words) in *accentual feet* (Cantero, 2002) or *accentual groups* (also referred to as phonetic groups; Hualde & Nadeu, 2014) with different configurations. Rhythmic structures were composed as follows (unstressed syllables are represented by a lowercase *x* and stressed syllables by an uppercase *X* and in uppercase within the sentences):

1. Regular feet: Xxx-Xxx-Xxx (e.g. MA-rio te VIO sin la MÁ-qui-na) [Mario saw you without the machine].

2. Regular group: xXx-xXx-xXx (e.g. la CA-sa se VEN-de por PAR-tes) [the house is sold by parts].

3. Irregular feet: Xx-Xxxx-Xxx (e.g. SOL me CUEN-ta de su SÁ-ba-do) [Sol tells me about her Saturday].

4. Irregular group: Xx-xxxX-xXx (e.g. MA-rio se nos que-DÓ sin NO-via) [Mario ended up without a girlfriend].

All sentences are comprised of six words and three feet or groups, and exhibit a similar syntactic structure (subject + verb + complement). Only high-frequency words were used and synalephas and other kinds of resyllabification within the sentences were avoided.

For conducting the study, we use a reading - repetition task, in which each participant has to read a sentence and the other one has to immediately repeat it (participants alternate between reading and repeating the sentences). A *rhythmic distance score*, proposed by Späth et al. (2016), is then used to determine the degree of convergence between the interlocutors' rhythms.

A pilot study with four dyads of Spanish native speakers showed a greater amount of convergence between regular structures with respect to irregular ones, when feet nuclei were left aligned. Additionally, an overall tendency was observed for the regular utterances to present more similar metrical timing patterns between interlocutors than the irregular ones, rather than a gradual augmentation of the resemblance between regular utterances' rhythms over the course of the task. The results of the application of the task to twelve Spanish-speaking dyads will be presented (4 female-female, 4 male-male and 4 female-male) and the implications for current models of phonetic convergence in speech will be discussed.

References

Cantero, F. (2002). *Teoría y análisis de la entonación* [Theory and analysis of intonation]. Barcelona: Ediciones Universitat de Barcelona.

Falk, S., Rathcke, T., & Dalla Bella, S. (2014). When speech sounds like music. *Journal of Experimental Psychology: Human Perception and Performance, 40*(4), 1491-1506.

Hualde, J., & Nadeu, M. (2014). Rhetorical stress in Spanish. In H. van der Hulst (Ed.), *Word Stress: Theoretical and Typological Issues* (pp. 228-252). Cambridge: Cambridge University Press.

Louwerse, M., Dale, R., Bard, E., & Jeuniaux, P. (2012). Behavior matching in multimodal communication is synchronized. *Cognitive Science, 36*(8), 1404-1426.

Späth, M., Aichert, I., Ceballos, A., Wagner, E., Miller, N., & Ziegler, W. (2016). Entraining with another person's speech rhythm: Evidence from healthy speakers and individuals with Parkinson's disease. *Clinical Linguistics and Phonetics, 30*(1), 68-85.

Accommodation in Professional Instructions of Movement: A Multimodal Analysis

Heike Ortner

(University of Innsbruck)

Short Outline: This talk sums up insights from a research project on the interactional nature of motion instructions. It deals with two settings where a professional teaches how to execute bodily movements. Given the fact that instructions are not merely top-down directions but negotiated in interaction, several forms and functions of accommodation come into focus.

Research questions: The main research question concerns the way that therapists and professional instructors guide the patients through complex movements and how they accommodate to their interlocutors through nonverbal, paraverbal and verbal means. The two different settings are juxtaposed in order to get a better grasp at a) continuities and b) disparities of the instructional language and physicalness of instructional actions.

Approach: The theoretical backdrop is current research on language, space and movement from a grammatical, semantic and cognitive viewpoint, integrating concepts of cognitive grammar (cf. Talmy 2010), embodiment (cf. Gibbs 2006), and construction grammar (cf. Ziem and Lasch 2013). The view on accommodation is based on the Communication Accommodation Theory established by Giles (2008, 2009). Also, the concepts of Audience Design (Bell 1984, 2014) and interactional accounts (Norris 2011) are of vital importance to understand the processes at work.

Data: The data stem from several hours of video recordings of physician-patient-interactions at an Austrian clinic and of Pilates courses. The language of instruction is German with varying degrees of diatopic variation (Austrian German, local varieties of Tyrol, but also other varieties of German).

Method: The method is a multimodal analysis, taking into account verbal and bodily interventions. Movement will be analysed using insights from the linguistic realisation of instructions in therapeutic settings (cf. Stukenbrock 2014) and multimodal analysis of doctor-patient interactions as well as instructions in sports, using newer interactionist methodology.

Expected Results: In physiotherapy, the patients have to experience that everyday movements like walking or grasping are very complex motion sequences (cf. Perry 2010 for a description of gait). Physiotherapy is a staple of neurorehabilitation. It aims at re-building everyday activities to make the

patients self-dependent again (cf. Frommelt and Grötzbach 2010). The physician-patient-interaction is an important part of the therapeutic process. It involves multiple sources of information in need of integration: verbal, tactile, visual and technical information. The verbal instructions and tactile feedback by the therapists turn out to be very important for successful motor (re-)learning (cf. Hooyman 2014; Munzert 2015). However, the verbal cues are of rather limited importance compared to tactile feedback, which can be expected given the physiotherapeutic approach employed at the site of research.

Although the setting is quite different, there are similar processes of mediation at work during a Pilates course. The techniques of accommodation between instructors and clients are manifold, complementary and co-ordinated. On the one hand, the instructors need to accommodate to their clients by maximizing comprehensibility (verbal) and perceivability (nonverbal); on the other hand, the clients pick up verbal as well as physical aspects of the trainer's habitus, technical language, proposals, and corrections. Despite the similiarities, there are also stark contrasts between the reviewed settings that mainly have to do with the situation of a trainer-client-relationship in a Pilates course with the aim of well-being, fitness and leisure as opposed to a physician-client-relationship during a health crisis. Also, the types of movements and their execution account for differences: the movement qualities differ regarding speed, involved body parts, and goals both of the single movement (using a cognitive SOURCE-PATH-GOAL schema) and the intervention in general.

Selected References

Bell, Allan. 1984. Language style as audience design. In: Language in Society 13 (2), 145-204.

Bell, Allan. 2009. Language Style as Audience Design. In: Coupland, Nikolas/Jaworski, Adam (Hrsg.): The New Soziolinguistics Reader. Basingstoke/New York: Palgrave Macmillan, 265-275.

Frommelt, Peter; Grötzbach, Holger (2010): Kontextsensitive Neurorehabilitation: Einführung in die klinische Neurorehabilitation. In: Frommelt, Peter; Lösslein, Hubert (eds.): Neuro-Rehabilitation. Ein Praxishandbuch für interdisziplinäre Teams. Berlin: Springer, 3–22.

Gibbs, Raymond W. (2006): Embodiment and cognitive science. Cambridge: Cambridge University Press.

Giles, Howard. 2008. Communication Accommodation Theory. In: Baxter, Leslie A./Braithwaite, Dawn O. (Hrsg.): Engaging Theories in Interpersonal Communication. Multiple Perspectives. Los Angeles/London/New Delhi/Singapore: Sage, 161-173.

Giles, Howard. 2009. The Process of Communication Accommodation. In: Coupland, Nikolas/Jaworski, Adam (Hrsg.): The New Soziolinguistics Reader. Basingstoke/New York: Palgrave Macmillan, 276-286.

Giles, Howard/Powesland, Peter F. 1975. Speech style and social evaluation. London: Academic Press.

Hooyman, Andrew; Wulf, Gabriele; Lewthwaite, Rebecca (2014): Impacts of autonomy-supportive versus controlling instructional language on motor learning. In: Human Movement Science 36, 190-198.

Munzert, Jörn (2015): Sprache und Bewegung: Zur Bedeutung von Instruktion und Selbstinstruktion im Sport. In: Born, Joachim; Gloning, Thomas (eds.): Sport, Sprache, Kommunikation, Medien. Interdisziplinäre Perspektiven. Gießen: Gießener Elektronische Bibliothek, 295-316.

Norris, Sigrid (2011): Identity in (inter)action: Introducing multimodal (inter)action analysis. Berlin, New York: de Gruyter Mouton (Trends in applied linguistics 4).

Perry, Jacquelin (2010): Gait analysis. Normal and pathological fuction. Thorofare: Slack.

Stukenbrock, Anja (2014): Take the words out of my mouth. Verbal instructions as embodied practices. In: Pragmatics 65, 80–102.

Talmy, Leonard (2010): The fundamental system of spatial schemas in language. In: Marotta, Giovanna; Lenci, Alessandro; Meini, Linda; Rovai, Francesco (Hg.): Space in language. Pisa: Edizioni ETS, 143–177.

Ziem, Alexander; Lasch, Alexander (2013): Konstruktionsgrammatik. Konzepte und Grundlagen gebrauchsbasierter Ansätze. Berlin, New York: de Gruyter (Germanistische Arbeitshefte 44).

Pragmatic Accommodation in Backchannel Sequences in ELF Interactions

Saya Ike & Jean Mulder
(Sugiyama Jogakuen University; University of Melbourne)

Using Conversation Analysis frameworks and an analysis of backchannel (BC) behaviour as a collaborative interactional management strategy (Ike, 2016; Ike & Mulder, 2016), this paper focuses on BC sequences—that is, BC instances involving more than one exchange of BCs—in English as a lingua franca (ELF) interactions between Japanese and Australian speakers of English. After summarizing BC sequences in English spoken by Japanese (JE) and by Australians (AusE), this paper explores how JE and AusE speakers accommodate their pragmatic differences in ELF interactions by examining the range and distribution of elements and functional phases that occur in BC sequences, and the interactional work accomplished in the different phases, such as stancetaking or turn management.

The analysis is based on 12 speaker samples of approximately 2.5 minutes each (totalling 30 minutes) drawn from six hours of video-recorded dyadic conversations. Each sample consists of single speaker story tellings that have been transcribed for speech and gesture (including nodding, eye gaze movement, facial expression, and other head and/or body movement), with four from conversations between two JE speakers, four between two AusE speakers, and four between a JE and an AusE speaker.

A BC sequence minimally consists of a BC instance in which the listener's verbal and/or nonverbal BC is acknowledged by the speaker with another BC. In JE, such an exchange often develops into an extended exchange of BCs, including a display of simultaneous backchannelling by both conversation participants (cf. Iwasaki, 1997). An extended BC sequence typically consists of three phases: acknowledgement; collaborative stancetaking, in which participants affiliate with each other (Stivers, 2008), enhancing their rapport(Spencer-Oatey, 2008); and turn negotiation, in which they select the next speaker or floor holder without threatening each other's face. In AusE, however, BC sequences are less frequent and typically consist of only an acknowledgement. When longer BC sequences do occur, they appear to contain a short collaborative stancetaking phase, although not necessarily affiliative in nature, followed, in a few cases, by a short negotiation of turn.

Given these differences in BC sequence organisation, in addition to the BC frequency differences of the two varieties of English noted elsewhere (e.g., Ike, 2010), JE and AusE speakers may have different expectations of their interlocutor's BC behaviour in JE-AusE (i.e., ELF) conversations. Our analysis shows that in such interactions speakers negotiate their expectations by using a range of accommodation strategies, including more closely monitoring their interlocutors, using a wider range

of elements in producing both BC cues and BCs, and producing shorter BC sequences with a reduced range of functional phases.

This paper argues for the importance of multimodal analysis in understanding ELF communication, and through detailed multimodal analysis, it provides further insight into the pragmatic accommodation accomplished by speakers in ELF settings.

References

Iwasaki, S. (1997). The Northridge earthquake conversations: The floor structure and the 'loop' sequence in Japanese conversation. *Journal of Pragmatics, 28*(6), 661-693.

Ike, S. (2010). Backchannel: a feature of Japanese English. *JALT 2009 Conference Proceedings*, 205-215.

IIke, S. (2016). The Interactional Basis of Backchannel Behaviour in Japanese English. *Journal of Sugiyama Jogakuen University: Humanities , 47*, 129-138.

Ike, S., & Mulder, J. (2016). Conceptualising Backchannel Bahaviour in Japanese English and Australian English. *Proceedings of the 18th Annual Conference of Pragmatics Society of Japan.* Nagoya.

Iwasaki, S. (1997). The Northridge earthquake conversations: The floor structure and the 'loop' sequence in Japanese conversation. *Journal of Pragmatics , 28* (6), 661-693.

Spencer-Oatey, H. (2008). Face, (Im)Politeness and Rapport. In H. Spencer-Oatey (Ed.), *Culturally Speaking: Culture, Communication and Politeness Theory* (2 ed., pp. 11-47). London: Bloomsbury Publishing.

Stivers, T. (2008). Stance, alignment and affiliation during story telling: nodding as a token of preliminary affiliation. *Research on Language and Social Interaction , 41* (1), 31-57.

Appropriateness of nonverbal greeting behaviours of Saudi sojourners in English-speaking countries

Hessa M Al-Bishi

(Birkbeck College, University of London)

The purpose of this study is to investigate the impact of residence in English-speaking countries (ESCs) on Saudi sojourners' judgments of appropriateness of nonverbal greeting behaviours. The principal focus is drawn on intergroup comparisons between Saudi sojourners who have spent more than two years in ESCs and Saudi sedentary.

In intercultural communication, people experience first-hand contact with different cultures which results in adaptive changes in verbal and nonverbal behaviours (Ting-Toomey, 2012). Scholars have considered communication across cultures (Knapp, Hall, & Horgan, 2013), and diverse consequences of communication accommodation such as language change (Gallois & Giles, 2015), and acculturation of all those who crossed borders including visitors, sojourners, and migrants (Dewaele & Stavans, 2014). Little attention, however, has been paid to adjustment of pragmatic features of nonverbal communication. The purpose of this study is to explore appropriateness of nonverbal greeting behaviours influenced by length of residence in a different culture, personality traits, and culture orientation as predictors. In other words, it aims to investigate to what extent familiarity with culture

of English-speaking countries (ESCs) may affect Saudi sojourners' perceptions of nonverbal greetings appropriateness.

We developed a questionnaire comprising three sections: 1) Likert scales on appropriateness of four Saudi typical nonverbal greeting behaviours involving handshake, holding hands, cheek-to-cheek kiss, and embrace shown in stimulating videos which were acted by two Saudi interlocutors, 2) Multicultural Personality Questionnaire (MPQ, Van Oudenhoven & Van Der Zee, 2002), and 3) bi-dimensional acculturation scale (VIA, Ryder & al., 2000). Data were collected from a total of 764 participants: 644 Saudi sojourners in ESCs, 59 Saudis in Saudi Arabia, and 61 English L1 users. Statistical analyses indicated that Saudi sojourners', particularly those who have spent more than two years (SA3) in ESCs, judgments of appropriateness of nonverbal greeting behaviours, namely, inappropriateness of cheek-to-cheek kiss and embracing a stranger approximate those of English L1 users. In terms of intergroup comparisons, SA3 sojourners' assessments of handshake with upper-status people differ from Saudi sedentary judgments.

Results also indicated that personality profiles of sojourners influenced their assessment of nonverbal greetings appropriateness. Cultural empathy and open-mindedness were negatively related to sojourners' perceptions of appropriateness of most nonverbal greeting behaviours whereas emotional stability was positively associated with sojourners' judgments of cheek-to-cheek kiss with colleagues. Moreover, flexibility was negatively linked to handshake with higher-status people.

With regard to acculturation level, findings showed that judgments of nonverbal greetings appropriateness were inversely related to the score reflecting sojourners' orientation towards heritage and mainstream cultures. In other words, SA3 sojourners' orientation towards Saudi heritage culture is negatively associated with their judgments of appropriateness of several nonverbal greeting behaviours such as embracing close friends.

This study found that, over time, perceptions of appropriateness of nonverbal communication among Saudi sojourners seem to change as a result of acculturation to a new culture. Importantly, the current results provide a sound basis for longitudinal studies considering specific behaviours of other ethno-cultural groups.

References

Dewaele, J.-M. & Stavans, A. (2014) The effect of immigration, acculturation and multicompetence on personality profiles of Israeli multilinguals. *The International Journal of Bilingualism*, 18 (3), 203-221.

Gallois, C., & Giles, H. (2015). Communication accommodation theory. *International Encyclopedia of Language and Social Interaction*.

Knapp, M. L., Hall, J. A., & Horgan, T. G. (2013). *Nonverbal communication in human interaction*. Cengage Learning.

Ryder, A. G., Alden, L. E., & Paulhus, D. L. (2000). Is acculturation unidimensional or bidimensional? A head-to-head comparison in the prediction of personality, self-identity, and adjustment. *Journal of personality and social psychology*, 79(1), 49.

Ting-Toomey, S. (2012). *Communicating across cultures*. Guilford Press.

Van Oudenhoven, J. P., & Van der Zee, K. I. (2002). Predicting multicultural effectiveness of international students: The Multicultural Personality Questionnaire. *International Journal of Intercultural Relations*, 26(6), 679-694.

WORKSHOP 2

Advances in diachronic construction grammar – Debating theoretical tenets and open questions

Lotte Sommerer & Elena Smirnova

(Universität Wien, English Department; Université de Neuchâtel, German Department)

Workshop Description and Research Questions

During the last decade, the constructionist approach has definitely been the fastest growing linguistic and interdisciplinary cognitive-functional approach to language (cf. Goldberg 2013: 30). This is confirmed by

a) a large body of recent publications (cf. e.g. Tomasello 2003; Croft & Cruse 2004; Fried & Östman 2004; Fischer & Stefanowitsch 2006; Butler & Arista 2009; Colleman & De Clerck 2011; Hoffmann & Trousdale 2011, 2013; Hilpert 2014; Boogaart et al. 2014; Ziem & Lasch 2014)

b) the development of several versions of Construction Grammar (e.g. Cognitive Construction Grammar (Goldberg 1995, 2006), Radical Construction Grammar (Croft 2001), Sign-based Construction Grammar (Michaelis 2011, Boas & Sag 2012), Fluid Construction Grammar (Steels 2011), Embodied Construction Grammar (Bergen & Chang 2013), Usage-based Construction Grammar (Diessel 2015).

c) an increase in scope and the emergence of new research directions (e.g. constructional morphology, application to languages other than English, typological comparative studies, computational modeling etc.) and

d) the growing number of international conferences and workshops being held.

Since Israel's seminal paper (1996), many historical linguists also "see an excellent fit between the mechanisms of syntactic change and the basic principles of Construction Grammar" (Bartðdal & Gildea 2015: 9). Construction grammar is considered a useful descriptive tool for diachronic analysis because its architecture invites us to think "about change in form and meaning equally, as well as the creation of and changes to links between constructions in a network" (Traugott & Trousdale 2013: 231). Especially a usage-based, cognitive constructional approach lends itself very well to modeling morpho-syntactic change (e.g. grammaticalization) as it understands change as a gradual, incremental bottom-up process and stresses the importance of frequency effects, analogical reasoning, chunking, and entrenchment. Grammar is an emergent phenomenon and change happens through use.

Attracted by those premises, many researchers have started to eclectically reframe their argumentation in constructional terms, while others try to develop a comprehensive framework of diachronic construction grammar (Bergs & Diewald 2008; Fried 2009; Brems 2011; Patten 2011; De Smet 2013; Hilpert 2013; Traugott & Trousdale 2013; Trousdale & Norde 2013; Trousdale 2014; van de Velde 2014; Barðdal, Smirnova, Sommerer & Gildea 2015; Perek 2015; Sommerer 2015; Smirnova 2015; van Rompaey, Davidse & Petré 2015; Heine, Narrog & Long 2016, Traugott forthc.)

As DCxG is still a very young endeavor, many theoretical questions have only been touched upon inconsistently so far. One of these fundamental questions is whether diachronic construction grammar can be a fruitful endeavor without placing cognition and psychological reality/plausibility at the center of discussion (cf. Hilpert forthc.)? On the one hand, DCxG's aim has been defined as the "historical study of constructions" (Barðdal & Gildea 2015: back cover) looking for their occurrence "in specific

types of usage events" (Fried 2015: 140) with a rather descriptive focus on which constructions exist, when they arise/compete, and how they formally or semantically change over time. On the other hand, DCxG with a cognitive outlook focuses on psychological underpinnings and aims to "make statements about the [internal] linguistic knowledge of earlier generations of speakers" (Hilpert forthc.). Note that these two goals are not equivalent.

Next to this question, many model-internal concepts have not been discussed explicitly enough or are simply understood differently by different researchers. Additionally, one can observe a lack of consistent terminology and annotation. However, we believe that only by hands on application, the strengths and weaknesses of a constructionalist model can be made visible for our field.

This workshop offers s a platform to discuss the theoretical foundations of diachronic construction grammar by suggestions and refinements on open questions. Skimming through the current literature, we have identified unresolved questions in 3 different (intimately related) areas (i-iii) which we believe are particularly relevant as answering them in one way or the other will have significant repercussions for a diachronic model.

i) Nodes & Networks: Constructions are organized in constructional networks. "Constructions come in taxonomic and meronymic networks of constructional families" (Barðdal & Gildea 2015: 23). Lower level constructions inherit features from higher level constructions vertically. Additionally, horizontal links between constructions on the same level of abstraction enrich any inheritance model (van de Velde 2014, Traugott to appear).

(1) When is it feasible to postulate a separate node in the network?
(2) Which options exist to capture vertical & horizontal relations between constructions within a network?
(3) Should sketches of constructional families be based on form, on function or on both?
(4) Which inheritance model should be favoured?
(5) What is the theoretical status of constructs and allostructions especially in a diachronic perspective?

ii) Constructional change vs. Constructionalization: A distinction has been made between constructionalization and constructional changes (see Traugott & Trousdale 2013, Smirnova 2015).

(6) The question remains whether it is necessary/possible to postulate such a difference after all. Are there alternatives to differentiating between types of change (node changes vs. connectivity changes (cf. Hilpert: forthc.))?
(7) What is the role of analogization, frequency effects and reanalysis?
(8) How can phenomena like constructional competition and changes in constructional productivity be implemented within a network model?
(9) With respect to diachronic data and to changes within and between constructions, how relevant is the issue of (non-) compositionality, and chunking?
(10) Related to that is the question of polysemy, mismatch and coercion effects, which is particularly important in diachronic studies, especially if one thinks about analogy and neo-analysis as the major mechanisms of constructional change.

iii) Notation & Formalism: Current studies use a variety of notational styles and often do not adhere to any constructionist formalism at all. Still, that does not mean that DCxG should not at least aim to develop a 'useful' notational formalism (compare the Leipzig Glossing Rules).

(11) Can DCxG do without any notational formalism?
(12) If not, how should/could a (language-specific) annotation look like? How much formalism should we aim for in diachronic work?

We hope that a discussion of those questions will contribute to develop DCxG further and spark off many constructional diachronic case studies in the future by clarifying theoretical aspects thereby making it more applicable.

References

Barðdal, Jóhanna & Spike Gildea. 2015. Diachronic Construction Grammar: Epistemological context, basic assumptions and historical implications. In Barðdal, Jóhanna, Smirnova, Elena, Sommerer, Lotte & Spike Gildea (eds). *Diachronic Construction Grammar*. Amsterdam: Benjamins, 1-50.

Barðdal, Jóhanna, Smirnova, Elena, Lotte Sommerer & Spike Gildea (eds). 2015. *Diachronic Construction Grammar*. Amsterdam: Benjamins.

Bergen, Benjamin & Nancy Chang. 2013. Embodied construction grammar. In Hoffmann, Thomas & Graeme Trousdale (eds). *The Oxford handbook of construction grammar*. Oxford: OUP, 168-190.

Bergs, Alexander & Gabriele Diewald (eds). 2008. *Constructions and language change*. Berlin: Mouton de Gruyter.

Boas, Hans. & Ivan Sag (eds). 2012. *Sign-based construction grammar*. Stanford, CA: CSLI Publications.

Boogaart, Ronny, Colleman, Timothy & Gijsbert Rutten (eds). 2014. *Extending the scope of construction grammar.* Berlin: De Gruyter Mouton.

Brems, Liselotte. 2010. *Layering of Size and Type Noun Constructions in English*. Berlin. Mouton De Gruyter.

Butler, Christopher S. & Javier Martín Arista (eds.). 2009. *Deconstructing Constructions*. [Studies in Language Companion Series, 107] John Benjamins.

Bybee, Joan & Clay Beckner. 2014. Language use, cognitive processes and linguistic change. In Bowern, Claire & Bethwyn Evans (eds). *The Routledge handbook of historical linguistics*. London: Routledge, 503-518.

Colleman, Timothy & Bernard De Clerck. 2011. Constructional semantics on the move: On semantic specialization in the English double object construction. *Cognitive Linguistics* 22(1), 183-209.

Croft, William & Alan Cruse 2004. *Cognitive linguistics*. Cambridge: CUP.

Croft, William. 2001. *Radical construction grammar: syntactic theory in typological perspective*. Oxford: OUP.

De Smet, Hendrik. 2013. *Spreading patterns: Diffusional change in the English system of complementation*. Oxford: Oxford University Press.

Diessel, Holger. 2015. Usage-based construction grammar. In Dąbrowska, Ewa & Dagmar Divjak (eds). *Handbook of cognitive linguistics*. Berlin: Mouton de Gruyter, 295-321.

Fischer, Kerstin & Anatol Stefanowitsch. (eds). 2006. *Konstruktionsgrammatik. Von der Anwendung zur Theorie*. Tübingen: Stauffenburg.

Fried, Mirjam. 2009. Construction grammar as a tool for diachronic analysis. *Constructions and Frames* 1(2), 261-291.

Fried, Mirjam & Jan-Ola Östman. 2004. Construction grammar: A thumbnail sketch. In Mirjam Fried & Jan-Ola Östman (eds). *Construction grammar in a cross-language perspective*. Amsterdam: Benjamins, 11-86.

Goldberg, Adele. 1995. *Constructions: A construction grammar approach to argument structure*. Chicago: University of Chicago Press.

Goldberg, Adele. 2006. *Constructions at work: The nature of generalization in language*. Oxford: OUP.

Goldberg, Adele. 2013. Constructionist approaches to language. In Hoffmann, Thomas & Graeme Trousdale (eds). *The Oxford handbook of construction grammar*. Oxford: OUP, 15-31.

Heine, Bernd, Narrog, Heiko & Haiping Long. 2016. Constructional change vs. grammaticalization: From compounding to derivation. *Studies in Language*, 40/1, 137-175.

Hilpert, Martin. 2013. *Constructional Change in English: Developments in Allomorphy, Word Formation, and Syntax*. Cambridge: CUP.

Hilpert, Martin. 2014. *Construction Grammar and its application to English*. Edinburgh: EUP.

Hoffmann, Thomas & Graeme Trousdale (eds). 2013. *The Oxford handbook of construction grammar*. Oxford: OUP

Hoffmann, Thomas & Graeme Trousdale. 2011. Variation, change and constructions in English. *Cognitive Linguistics* 22(1), 1-23.

Israel, Michael. 1996. The *way* constructions grow. In Adele Goldberg (ed.). *Conceptual Structure, Discourse and Language*. Stanford: CSLI Publ, 217-230.

Michaelis, Laura. 2011. Sign-Based construction grammar. In Heine, Bernd & Heiko Narrog (eds). *The Oxford handbook of linguistic analysis*. Oxford: OUP, 155-176.

Patten, Amanda. 2012. *The English IT-cleft: A constructional account and a diachronic investigation*. Berlin: de Gruyter Mouton.

Perek, Florent. 2015. *Argument structure in usage-based construction grammar: Experimental and corpus-based perspectives*. Amsterdam: Benjamins.

Petré, Peter. 2014. *Constructions and environments: Copular, Passive and related Constructions in Old and Middle English*. Oxford: Oxford University Press.

Smirnova, Elena. 2015. Constructionalization and constructional change: The role of context in the development of constructions. In Barðdal, Jóhanna, Smirnova, Elena, Sommerer, Lotte & Spike Gildea. (eds). *Diachronic construction grammar*. Amsterdam: Benjamins, 81-106.

Sommerer, Lotte. 2015. The influence of constructions in grammaticalization. Revisiting category emergence and the development of the definite article in English. In Barðdal, Jóhanna, Smirnova, Elena, Sommerer, Lotte & Spike Gildea. (eds). *Diachronic construction grammar*. Amsterdam: Benjamins, 107-137.

Steels, Luc (ed.). 2011a. *Design patterns in fluid construction grammar*. Amsterdam: Benjamins.

Tomasello, Michael. 2003. *Constructing language: A usage-based theory of language acquisition*. Cambridge, MA: Harvard University Press.

Torrent, Tiago Timponi. 2015. On the relation between inheritance and change: The construction network reconfiguration hypothesis. In Barðdal, Jóhanna, Smirnova, Elena, Sommerer, Lotte & Spike Gildea. (eds). *Diachronic construction grammar*. Amsterdam: Benjamins, 173-212.

Traugott, Elizabeth (forthc.) Modeling language change with constructional networks.

Traugott, Elizabeth C. & Graeme Trousdale. 2013. *Constructionalization and constructional changes*. Oxford: OUP.

Trousdale, Graeme & Muriel Norde. 2013. Degrammaticalization and constructionalization: two case studies. *Language Sciences* 36, 32-46.

Trousdale, Graeme. 2014. On the relationship between grammaticalization and constructionalization. *Folia Linguistica* 48(2), 557-578.

Van de Velde, Freek. 2014. Degeneracy: The maintenance of constructional networks. In Boogaart, Ronny, Timothy Colleman & Gijsbert Rutten (eds). *Extending the scope of Construction Grammar*. Berlin: De Gruyter, 141-180.

Van Rompaey, Tinne, Davidse, Kristin & Peter Petré. 2015. Lexicalization and grammaticalization: the case of the verbo-nominal expressions be on the/one's way/road. *Functions of Language* 22/2, 232-263.

Ziem, Alexander & Alexander Lasch. 2013. *Konstruktionsgrammatik: Konzepte und Grundlagen gebrauchsbasierter Ansätze* [Germanistische Arbeitshefte, Band 44]. Berlin: De Gruyter Mouton.

Morphological networks and morphological change

Muriel Norde
(Humboldt-Universität zu Berlin)

Since the publication of Booij's (2010) monograph, Construction Morphology has quickly established itself as a key approach to morphological analysis. In Construction Morphology, words are considered constructions, i.e. arbitrary pairings of form and meaning that are stored in an inventory, which is conceived of as a network of micro-constructions (individual words), subschemas and schemas (cf. Traugott & Trousdale 2013). In this programmatic paper, I will argue that the constructional framework also lends itself well to the analysis of morphological change. I will outline the basic tenets of a new framework, Diachronic Construction Morphology, which essentially sees morphological change as changes in morphological networks (Anonymous, in prep.). Following Norde & Morris (fc.) I will argue that morphological constructions are not only linked hierarchically to constructions at a higher or lower level of schematicity, but that they are also horizontally linked to constructions at the same level of schematicity. For example, Latin *rosārum* (rose-fem.pl.gen) is intraparadigmatically linked to the other forms in the inflectional paradigm of *rosa* 'rose', as well as interparadigmatically linked to forms with the same properties, e.g. *feminārum* (woman- fem.pl.gen). The theme of this paper thus specifically links in to the first set of research questions (on nodes and networks) of the workshop "Advances in Diachronic Construction grammar", in particular the following ones:

(1) When is it feasible to postulate a separate node in the network?
(2) Which options exist to capture horizontal relations between constructions within a network?
(3) Which inheritance model should be favoured?

Using data from corpus-based case studies of various Germanic languages, I will argue that three types of changes in morphological networks can be identified:

1: Network expansion: the establishment of new nodes and links between them. I will argue that change starts locally, by means of analogical extension (Van Goethem & Norde 2016). This may lead to a cluster of (formally and / or semantically) similar micro-constructions, i.e. an increase in type frequency. Eventually, a new subschema may arise, which may also sanction new members, which will further promote type frequency (Hartmann 2016, Norde & Strik 2016).
2: Network reduction: the severance of links, for instance in deflexion, i.e. the loss of morphological categories such as case or mood (Norde 2001, Jensen 2011, Berg 2015).
3: Network realignment: the establishment of new links between existing nodes in the network, for instance changes in conjugational classes in Germanic (Strik 2015), exaptation of marginalized inflectional affixes (Norde & Trousdale 2016), and constructional contamination, whereby new constructions emerge from multiple sources (Pijpops & Van de Velde 2016).

I furthermore argue that these network changes (expansion, reduction and realignment) are constrained by two basic constructional properties: connectivity, i.e. the number of links (both inheritance and lateral) that connect micro-constructions to other nodes in the network, and frequency, both at the micro-constructional level (i.e. token frequency) and at the schema level (i.e. type frequency).

Corpora
COW (Dutch, English, German, Swedish):
Schäfer, Roland. (2015). Processing and querying large web corpora with the COW 14 architecture. *Proceedings of Challenges in the Management of Large Corpora* (CMLC-3, July 20, 2015, Lancaster)
Språkbanken (Swedish):
Borin, Lars, Markus Forsberg and Johan Roxendal. 2012. Korp – the corpus infrastructure of Språkbanken. *Proceedings of LREC 2012*. Istanbul: ELRA, 474–478

References
Anonymous. in prep. *An Introduction to Diachronic Construction Morphology*. Edinburgh: Edinburgh University Press, expected 2018.
Berg, Ivar. 2015. Stages in deflexion and the Norwegian dative. In Haug, D. T. T. (Ed.) *Selected Papers from the 21st International Conference on Historical Linguistics*. Amsterdam / Philadelphia: John Benjamins, 179-194.
Booij, Geert. 2010. *Construction morphology*. Oxford: Oxford University Press.
Fertig, David. 2013. *Analogy and morphological change*. Edinburgh: Edinburgh University Press.
Hartmann, Stefan. 2016. *Wortbildungswandel. Eine diachrone Studie zu deutschen Nominalisierungsmustern*. Berlin / New York: De Gruyter Mouton.
Jensen, Eva Skafte. 2011. *Nominativ i gammelskånsk - Afvikling og Udviklinger*. Copenhagen: Syddansk Universitetsforlag.
Norde, Muriel. 2001. The loss of lexical case in Swedish. In Jan Terje Faarlund (Ed.) *Grammatical relations in change*. Amsterdam / Philadelphia: John Benjamins, 241-272.
Norde, Muriel & Caroline Morris. fc. Derivation without category change: a network-based analysis of diminutive prefixoids in Dutch. Submitted to Van Goethem, Kristel, Muriel Norde, Evie Coussé & Gudrun Vanderbauwhede (Eds.) *Category Change from a Constructional Perspective.*
Norde, Muriel & Oscar Strik. 2016. Analogy, multiple sources and constructional networks: The Dutch *Klukkluk* construction. In: Anne Bannink & Wim Honselaar (Eds.) *From Variation to Iconicity. Festschrift for Olga Fischer*. Amsterdam: Pegasus, 295-310.
Norde, Muriel & Graeme Trousdale. 2016. Exaptation from the perspective of construction morphology. In: Muriel Norde & Freek Van de Velde (Eds.) *Exaptation and Language Change*. Amsterdam / Philadelphia: John Benjamins, 163-195.
Pijpops, Dirk & Freek Van de Velde. 2016. Constructional contamination: How does it work and how do we measure it? *Folia Linguistica* 50(2), 543-581.
Strik, Oscar. 2015. *Modelling Analogical Change: A History of Swedish and Frisian Verb Inflection*. PhD thesis, University of Groningen.
Traugott, Elizabeth Closs & Graeme Trousdale. 2013. *Constructionalization and constructional changes*. Oxford: Oxford University Press.

Schema unification and morphological productivity: A diachronic perspective on complex word-formation constructions

Stefan Hartmann & Luise Kempf

(University of Hamburg & University of Mainz)

The concept of inheritance has been discussed extensively in Construction Grammar (e.g. Goldberg 1995; Hilpert 2014). Until recently, however, horizontal network links between constructions at the same level of abstraction have received much less attention (but see e.g. Van de Velde 2014). This paper discusses two German constructions in which so-called unified schemas can help explain their diachronic productivity development. The concept of schema unification describes the emergence of a complex schema from schemas at the same level of abstraction which frequently co-occur (cf. Booij 2010: 41ff.). An example is (1), from Booij (2010: 42):

(1) $[un\text{-}A]_A + [V\text{-}able]_A = [un[V\text{-}able]_A]_A$

Our first example concerns adjectival word-formation with the suffix *-lich*, e.g. *bestech-lich* 'bribable'. A corpus study based on the Bonn Early New High German Corpus (Fisseni et al. 2007) and the GerManC corpus (Durrell et al. 2007) shows that from the 14th to the 18th century, complex derivatives become more prevalent (Kempf 2016). The complex $[un[V\text{-}lich]_A]_A$ schema remains productive for a longer period of time than the $[V\text{-}lich]_A$ schema, yielding formations that do not have a counterpart without the prefix *un-*, e.g. *un-glaub-lich* 'unbelievable', but **glaub-lich.* This finding is corroborated by an in-depth study determining the first attestations of a sample of 65 *lich*-derivatives based on three etymological dictionaries.

Our second case study investigates so-called pseudo-participles like *be-brill-t* ('wearing glasses', lit. 'be-glass-ed', from *Brille* 'glasses'). Formations of this type have presented a considerable challenge for more formally-oriented theories of word-formation as the corresponding verbs do not exist (*be-brill-en). Drawing on the billion-word webcorpus DECOW14AX (Schäfer & Bildhauer 2012), we investigate the present-day productivity of this pattern and discuss how actual participles (e.g. *be-last-et* 'burdened') may have served as a formal template for the complex schema.

Both case studies show that diachronic Construction Grammar can help provide cognitively realistic explanations for word-formation change. In the first study, assuming a unified schema explains why complex *lich*-formation remains productive for a longer time period than simple deverbal *lich*-formation. In the second case study, the unified schema explains the formation of pseudo-participles in the absence of a corresponding complex verb. In addition, the case studies touch upon the role of analogization and neo-analysis in the diachronic development of constructions (cf. Traugott & Trousdale 2013). In the case of pseudo-participles, new derivatives are coined in analogy to participles of verbs derived from nouns, such as *bedacht* from *bedachen* (lit. 'be-roof'), and verbs that can be reanalyzed as denominal (e.g. *bedecken* 'cover', from *decken* 'cover', but cf. *Decke* 'ceiling'). In the case of *lich*-derivatives, it can be assumed that individual highly frequent *un*-X-*lich*-formations serve as templates for instances of analogical extension that give rise to the complex schema. Both cases can be interpreted in terms of a strengthening of horizontal network links at the expense of vertical ones: By means of analogy, these formations "override" the constraints imposed by their superordinate schemas. This also raises the question whether a purely association-based theory of linguistic knowledge might be cognitively more realistic than a strongly node-based network model (cf. Schmid forthc., Hilpert forthc.).

Corpora

Bonn ENHG corpus	http://www.korpora.org/Fnhd/
DECOW14AX	http://www.corporafromtheweb.org/
GerManC corpus	http://www.ota.ox.ac.uk/desc/2544

References

Booij, Geert E. 2010. *Construction Morphology*. Oxford: Oxford University Press.

Durrell, Martin, Astrid Ensslin & Paul Bennett. 2007. The GerManC Project. *Sprache und Datenverarbeitung* 31. 71–80.

Fisseni, Bernhard, Hans-Christian Schmitz & Bernhard Schröder. 2007. FnhdC/HTML und FnhdC/S. *Sprache und Datenverarbeitung* 1.

Goldberg, Adele E. 1995. *Constructions: A Construction Grammar Approach to Argument Structure*. Chicago and London: The University of Chicago Press.

Hilpert, Martin. 2014. *Construction Grammar and its Application to English*. Edinburgh: Edinburgh University Press.

Hilpert, Martin. forthc. Three open questions in diachronic construction grammar. In: Evie Coussé, Peter Andersson & Joel Olofsson (eds.), *Grammaticalization meets Construction Grammar*. Amsterdam, Philadelphia: John Benjamins.

Kempf, Luise. 2016. *Adjektivsuffixe in Konkurrenz. Wortbildungswandel vom Frühneuhochdeutschen zum Neuhochdeutschen*. Berlin, Boston: de Gruyter.

Riecke, Jörg. 1999. Pseudopartizipien im Althochdeutschen. Ein Beitrag zur Geschichte eines Wortbildungstyps. *Sprachwissenschaft* 24(2). 157–193.

Schäfer, Roland & Felix Bildhauer. 2012. Building Large Corpora from the Web Using a New Efficient Tool Chain. In Cicoletta Calzolari, Khalid Choukri, Terry Declerck, Mehmet Uğur Doğan, Bente Maegaard, Joseph Mariani, Asuncion Moreno, Jan Odijk & Stelios Piperidis (eds.), *Proceedings of LREC 2012*, 486–493.

Schmid, Hans-Jörg, forthc. A framework for understanding entrenchment and its psychological foundations. In: Hans-Jörg Schmid (ed.), *Entrenchment and the psychology of language learning: How we reorganize and adapt linguistic knowledge*. Berlin, Boston: de Gruyter.

Traugott, Elizabeth Closs & Graeme Trousdale. 2013. *Constructionalization and Constructional Changes*. (Oxford Studies in Diachronic and Historical Linguistics 6). Oxford: Oxford University Press.

Van de Velde, Freek. 2014. Degeneracy: The Maintenance of Constructional Networks. In Ronny Boogaart, Timothy Colleman & Gijsbert Rutten (eds.), Extending the Scope of Construction Grammar, 141–180. Berlin, New York: De Gruyter.

The impact of token entrenchment on grammatical constructionalization

Johanna Flick & Melitta Gillmann

(Heinrich-Heine-University Düsseldorf & Hamburg University)

When a new grammatical and thus schematic construction emerges, type frequency is usually considered as main driving force behind its gradual entrenchment (Croft & Cruse 2007: 308-313, Traugott & Trousdale 2013). In contrast, high token frequency of one specific type typically enforces its autonomy, so that it is memorized as single unit (cf. Schmid 2007, Blumenthal-Dramé 2012).

Consequently, high type frequency enhances the productive spread of a schema while token frequency of specific instantiations typically runs against it (cf. Hay & Baayen 2002). However, token frequency might as well contribute to the entrenchment of an abstract schema (cf. Bybee 2010, 88f.). Evidence can be drawn from studies to language acquisition: Casenhiser & Goldberg (2005) and Goldberg (2006: 75-76) e.g. show that high token frequency of one central member of a category (an *exemplar* in Bybee's framework) can help children establish the meaning of the associated abstract construction. By means of two corpus studies we will argue that the constructionalization of a new schema proceeds in a similar way.

The first study deals with the constructionalization of the definite article in German which, similar to articles in other Germanic and Romance language (De Mulder & Carlier 2011), originated from an adnominally used demonstrative determiner. The functional change took place in the Old High German period (cf. Oubouzar 1992, Leiss 2000, Flick forthcoming). The investigation, which is based on data from the Old German Reference Corpus, reveals high token frequency of types like *dërheilant* ('the savior') exhibiting a clear non-demonstrative reading. They can be classified as early instances of definite article usages and as model for analogies for other [*dër* + N]-constructions. The second study conducted within the German Reference Corpus examines the *sein* 'be' perfect in present-day German, which has gained productivity within the semantic group of manner of motion verbs (c.f. Randall et al. 2004, Gillmann 2016). Here, the central members of manner of motion verbs such as to go and to run invariably take *sein*, instead of the auxiliary *haben* 'have', when building the perfect. At the same time, we observe a productive spread of *sein* to manner of motion verbs with intermediate frequency such as *schwimmen* 'to swim' and even recent loans from English such as *skaten* 'to skate'. Thus, it is likely that the high token frequency of chunks like *ist gegangen/gelaufen* ('has gone/run') serve as templates for this analogical spread.

In both case studies, the emerging abstract schemas seem to adopt semantic features evolved within the lexically specified and highly token frequent construction (e.g. manner of motion semantics in the case of the *sein* perfect). The precondition for this development is that the specific chunks are still (formally) transparent, which prevents them from losing the cognitive association with the comprising schema (see Bybee's *autonomy factor*). In our talk, we wish to encourage the discussion about the impact of token frequency on the entrenchment of grammatical constructions as well as its productivity in constructionalization processes.

Corpora
German Reference Corpus (= Deutsches Referenzekorpus or DeReKo):
<http://www1.ids-mannheim.de/kl/projekte/korpora/>
Old German Reference Corpus (= Referenzkorpus Altdeutsch):
<http://www.deutschdiachrondigital.de/home/?lang=en>

References

Blumenthal-Dramé, Alice. 2012. *Entrenchment in usage-based theories. What corpus data do and do not reveal about the mind.* Berlin/Boston: De Gruyter.

Bybee, Joan. 2006. From usage to grammar. The mind's response to repetition. In: *Language* 82(4), 711-733.

Bybee, Joan. 2010. *Language, usage and cognition*. Cambridge: Cambridge University Press.

Croft, William, and Alan D. Cruse. 2007. *Cognitive Linguistics*. Cambridge: Cambridge University Press.

Flick, Johanna. forthcoming: *Die Entwicklung des Definitartikels im Althochdeutschen. Eine kognitiv-linguistische Korpusuntersuchung*. PhD thesis (Hamburg University).

Gillmann, Melitta. 2016. *Perfektkonstruktionen mit haben und sein. Eine Korpusuntersuchung im Althochdeutschen, Altsächsischen und Neuhochdeutschen.* Berlin/New York: De Gruyter.

Goldberg, Adele. 2006. *Constructions at work. The nature of generalization in language*. Oxford: Oxford University Press.

Hay, Jennifer, and Harald Baayen. 2002. Parsing and productivity. In: *Yearbook of Morphology 2001*, 203-235.

Leiss, Elisabeth. 2000. *Artikel und Aspekt. Die grammatischen Muster von Definitheit*. Berlin et al.: De Gruyter.

de Mulder, Walter, and Anne Carlier. 2011. The Grammaticalization of Definite Articles. In: *The Oxford Handbook of Grammaticalization*, Heiko Narrog and Bernd Heine (eds.) Oxford: Oxford University Press, 522–534.

Oubouzar, Erika. 1992. Zur Ausbildung des bestimmten Artikels im AHD. In: *Althochdeutsch. Syntax und Semantik. Akten des Lyonner Kolloquiums zur Syntax und Semantik des Althochdeutschen (1-3 März 1990)*, Yvon Desportes (ed.), Lyon: Université Lyon III, 71–87.

Randall, Janet, van Hout, Angeliek, Weissenborn, Jürgen, and Harald Baayen (2004): Acquiring Unaccusativity. A Cross-Linguistic look. In: *The unaccusativity puzzle. Explorations of the syntax-lexicon interface.* Artemis Alexiadou, Elena Anagnostopoulou,

Elena, Martin Everaert Martin (eds.), Oxford/New York: Oxford University Press, 332–353.

Schmid, Hans-Jörg. 2007. Entrenchment, salience and basic levels. In: *The Oxford Handbook of Cognitive Linguistics*, Dirk Geeraerts, Hubert Cuyckens (eds.), Oxford: Oxford University Press, 117-138.

Traugott, Elizabeth Closs, and Graeme Trousdale. 2013. *Constructionalization and Constructional Changes*. New York: Oxford University Press.

Converging variations and the emergence of horizontal links: *To*-contraction in American English

David Lorenz

(Universität Freiburg / Tartu Ülikool)

Diachronic Construction Grammar (DCxG) seeks to describe language change as changes in a network of constructions (cf. Traugott & Trousdale 2013; Barðdal & Gildea 2015). A current issue in DCxG is how items on the same hierarchical level of a network may be connected and what role such horizontal links play in diachrony (Van de Velde 2014; Diessel 2015). The present study shows how horizontal connections emerge between different (micro-)constructions that share a similarity in form. More generally, it elucidates how newly established forms are integrated into the network by mechanisms of analogy and schema formation.

The pattern of *to*-contraction in English V *to* V_{inf} constructions (e.g. *want to > wanna*, *going to > gonna*) has posed a challenge to generative formalization as it seems to cut across the phonological, lexical and syntactic levels (cf. Bolinger 1981, Pullum 1997). While CxG can handle this more straightforwardly, it has to ask what schematic relations pertain between full forms and contractions (cf. Boas 2004 analyzing *wanna* as a 'mini-construction') as well as between different contractions. Diachronically, the question is what links emerge in the network as some contractions increase in frequency and conventionality..

Using data from the Corpus of Historical American English (COHA, Davies 2010-), the study shows the development of *to*-contraction in the 19th and 20th centuries. The three forms *gonna*, *wanna* and *gotta* emerge from a plethora of *to*-contraction forms, become conventionalized and increasingly independent from their source forms (cf. Lorenz 2013). The variation between these contractions and the respective full forms is analyzed on ~36,000 tokens, with a view of the contractions' status as entrenched items (factors pertaining to linguistic environment and sentence complexity) and to their conventionalization in usage (register and genre). Using logistic regression with a moderator variable for 'time', changes in the factors of the variations can be measured and compared.

As the frequency of the contractions increases in general, the conditioning factors for the use of each contraction also change (largely in that effects of co-text and sentence complexity recede). Crucially though, the usage patterns of the three variations are found to become increasingly similar over time. I propose that this marks the establishment of a horizontal link between these items. This can be described as an emerging 'meta-construction' (Leino & Östman 2005), i.e. an analogical relationship between pairs of constructions, such that e.g. the relation of *wanna* to *want to* becomes analogous to that of *gonna* to *going to*, not just in terms of general features (such as 'colloquialness') but in the degree of usage preferences.

The study makes a case for emergent schematicity in language: an idiosyncratic case of chunking and phonological reduction becomes conventional and leads to the establishment of a schematic pattern. In particular, we observe the diachronic emergence of horizontal constructional links based on analogy. Moreover, the study demonstrates how quantitative data analysis can help observe shifts in a language's network of constructions.

References

Barðdal, Jóhanna & Spike Gildea. 2015. Diachronic Construction Grammar: Epistemological context, basic assumptions and historical implications. In J. Barðdal, E. Smirnova, L. Sommerer & S. Gildea (eds), *Diachronic Construction Grammar*. Amsterdam: John Benjamins. 1-50.

Boas, Hans C. 2004. You wanna consider a constructional approach towards *wanna*-contraction? In M. Achard and S. Kemmer (eds.), *Language, Culture, and Mind*. Stanford: CSLI Publications. 479-491.

Bolinger, Dwight. 1981. Consonance, dissonance and grammaticality: The case of *wanna*. *Language and Communication* 1. 189-206.

Davies, Mark. 2010-. *The Corpus of Historical American English: 400 million words, 1810-2009*. http://corpus.byu.edu/coha/

Diessel, Holger. 2015. Usage-based construction grammar. In E. Dąbrowska & D. Divjak (eds). *Handbook of cognitive linguistics*. Berlin: Mouton de Gruyter. 295-321.

Leino, Jaakko & Jan-Ola Östman. 2005. Constructions and variability. In M. Fried & H. Boas (eds.), *Grammatical Constructions: Back to the Roots*. Amsterdam: John Benjamins. 191-213.

Lorenz, David. 2013. *Contractions of English Semi-Modals: The Emancipating Effect of Frequency.* NIHIN studies. Freiburg: Rombach.

Pullum, Geoffrey K. 1997. The morpholexical nature of English *to*-contraction. *Language* 73. 79-102.

Traugott, Elizabeth C. & Graeme Trousdale. 2013. *Constructionalization and constructional changes*. Oxford: OUP.

Van de Velde, Freek. 2014. Degeneracy: the maintenance of constructional networks. In R. Boogaart, T. Colleman & G. Rutten (eds.), *Extending the scope of construction grammar.* Berlin: De Gruyter. 141-179.

Putting connections centre stage in diachronic construction grammar

Peter Petre & Sara Budts

Traugott & Trousdale (2013) make a distinction between constructionalization (rise of a new form-meaning pairing), and constructional change (affecting meaning *or* form). Yet it is still unclear to what extent change may imply functional and formal shifts simultaneously. If simultaneity is not a given, the distinction becomes a fuzzy one. Tighter integration of frequency into DCxG opens up a way of unifying the two changes. We exemplify this with the grammaticalization of *be going to* and *do*-support.

Be going to starts deviating from conveying motion-with-a-purpose around 1600. Yet clear-cut formal evidence of its auxiliarization only appears a century later with raising (*there is going to be such a calm*, Traugott 2015). Instead of positing a time lag between reanalysis and actualization, or serial 'micro-reanalyses', we argue this behaviour results from strengthening of clusters of **connections** with other constructions, which are gradually interconnected into a 'supercluster', which then becomes associated with other future auxiliaries such as *will* and *shall* globally. Crucially, the frequential shifts that precede superclustering already entail a gradual shift in *be going to*'s formal environments (e.g., an increase of relative clause uses) increasingly approximating such auxiliaries. From this perspective, raising need not be an indication of 'constructionalization' (if conceived as a switch turned on). Being rare with auxiliaries generally, it is natural for raising only to occur once a certain frequency threshold of auxiliary-like use is reached.

Do-support spread to different syntactic environments at different times (cf. Ellegård 1953). A constructionalization account must choose between treating this variation as representing separate constructions or as a single process. Either way it fails to account for overlapping wave-like behaviour of different *do*-s. We model the changes instead as an interconnected accumulation of connections between *do*-support and modals in similar contexts (cf. also Warner 1993: 198), showing that *do*-support in questions is initially associated with different uses of modals than in negative statements, *etc*.

Generally, by assuming that more grammatical knowledge is stored in (the changing strengths of) the connections, some longstanding theoretical problems that emerge out of an unwarranted privileged position of the nodes in the constructional network might turn out to be pseudo-problems. The debate on analogy versus reanalysis might well be a pseudo-debate, if analogy is seen as primaly reflecting change in horizontal connections, and reanalysis change in vertical connections (between constructs and constructions). Both connectivity types are simultaneously affected in any process of grammaticalization. Various similarity relations (allostructions, competition) that pose a challenge to a node-centred model naturally receive unified treatment if seen as reflecting (changes in) mutual distributional connections. As pointed out above, the same goes for constructionalization and constructional change. Importantly though, the approach still (should) leave(s) room for the concept of constructionalization to reflect the psychological reality that certain connectivity patterns stand out.

References

Ellegård, Alvar. 1953. The auxiliary do: The establishment and regulation of its use in English. PhD thesis: University of Gothenburg.

Traugott, Elizabeth C. & Graeme Trousdale 2013. *Constructionalization and constructional changes* (Oxford Studies in Diachronic and Historical Linguistics). Oxford: Oxford University Press.

Traugott, Elizabeth Closs. 2015. "Toward a coherent account of grammatical constructionalization." In *Diachronic Construction Grammar*, ed. by Jóhanna Barðdal, Elena Smirnova, Lotte Sommerer & Spike Gildea, 51-80. Amsterdam: Benjamins.

Warner, Anthony R. 1993. *English Auxiliaries. Structure and history*. Cambridge: Cambridge University Press.

Josep M. Fontana

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Contact, constructional polysemy and constructionalization: *Krijgen/kry* 'get'-constructions in Dutch and Afrikaans

Timothy Colleman

This paper presents a corpus-based overview of formal and semantic developments in constructions with *krijgen/kry* 'get, receive' + past participle in Dutch and Afrikaans over the past 150 years, focusing on the theoretical questions these (ongoing) shifts raise for existing accounts of constructional change. More precisely, I will zoom in on two clusters of issues.

First, both languages display several patterns with *krijgen/kry* + past participle but the synchronic and diachronic relations between these are far from clear. For instance, whereas, from a synchronic point of view, it makes sense to treat the Dutch *krijgen*-passive as a separate construction distinct from the older "resultative" *krijgen*-construction, it is by no means easy to establish *when* the *krijgen*-passive became a construction in its own right, rather than just a new subsense of a polysemous *krijgen* + participle construction (cf. AUTHOR 2015). Put differently, what are the diagnostics, if any, of constructionalization in the sense of Traugott & Trousdale (2013) having taken place? The issue is complicated by the fact that, recently, the resultative pattern has started displaying meaningful word order properties which, before, were typical of the passive pattern. This shows that, after constructionalization, diachronically related patterns can still exert influence on each other and thus have to be "horizontally" related in some way or another (see Verhagen 2002 on non-taxonomic formal and/or semantic similarity links between constructions, also see Van de Velde 2014).

Second, crucial developments in the area of *krijgen/kry*-constructions seem to be partially motivated by *language contact*, a factor often downplayed or overlooked in existing accounts of constructional change (also see AUTHOR 2016). For Dutch, a question that has not been addressed so far is whether the emergence and surprisingly rapid spread of the *krijgen*-passive around the turn of the 20th Century may not have been modeled on the formally and semantically similar *kriegen/bekommen*-passive in neighbouring German. To shed more light on this matter, I will zoom in on the kinds of verbs found in the very earliest (i.e., pre-1900) instances of the emerging Dutch pattern and on the details of its type and token frequency evolution over the 20th Century. For Afrikaans, we can point to recent uses of *kry* + past participle which mirror "experiential" uses of English *get* (as in *sy hart gebreek kry* 'to get one's heart broken'). In addition, the fact that, in Afrikaans, passive uses of *kry* combined with the participle of a ditransitive verb seem to have never really taken off may, among other things, be related to the existence of a functionally-equivalent pattern that used to be marginal but that can be shown to have much increased in token frequency in the course of the 20th century,

probably under the influence of English, viz. the ditransitive passive with a Recipient rather than a Theme subject (e.g. *Ek is 'n boek oorhandig* 'I was handed a book'). The question which kinds of constructional change can be contact-induced is still largely unanswered.

References

Traugott, Elizabeth C. & Graeme Trousdale. 2013. *Constructionalization and constructional changes*. Oxford: OUP.Van de Velde, Freek. 2014. Degeneracy: The maintenance of constructional networks. In Boogaart, Ronny, Timothy Colleman & Gijsbert Rutten (eds). *Extending the scope of Construction Grammar*. Berlin: De Gruyter, 141- 180.

Verhagen, Arie. 2002. From parts to wholes and back again. *Cognitive Linguistics* 13, 403-439.

The notions of "paradigm" and "paradigm formation" in the description of grammaticalizing change in constructional models

Gabriele Diewald

(Leibniz Universität Hannover)

This presentation argues for the introduction of the concept of paradigm as a distinct, complex type of construction – a hyperconstruction – and as a new node type into the theoretical framework and descriptive devices of construction grammar. It is argued that otherwise the results of grammaticalizing changes cannot be captured adequately in their semiotic and functional specificity. Thus, of the questions highlighted as relevant in the workshop outline, the presentation addresses those assembled under heading "i) Nodes & Networks".

Grammaticalization studies and construction grammar approaches have emphasized the notion of gradience as central for the description of linguistic structure and linguistic change. In particular, lexical and grammatical signs/constructions have been shown to be connected by infinitely fine-grained clines of intermediate stages. Nonetheless, grammaticalization theory rests on an *a priory*, categorial distinction between grammar on the one hand and lexicon on the other hand, whereby grammatical meanings (and their respective formal exponents) are established within a paradigm, i.e. a complex semiotic entity defined by closed sets of vertical distinctions (categorial value and its subordinate specifications) and horizontal oppositions (individual paradigmatic cells of varying hierarchical rank) (cf. Lehmann 2004, Diewald 2009).

Constructional approaches, with their intent of grasping and modelling the gradual aspects of change, the indefinite number of co-present micro-variations among constructions, and the uniformity of constructional networks, tend to minimize (or overlook) the fundamental semiotic and distinction between lexical items and grammatical items. The concepts typically applied in this endeavor, such as inheritance relations encoding degrees of abstractness and lexical specification (see e.g. Boas 2011, Flick 2016), descriptive features for constructions like "atomic" vs. "complex", "schematic" vs. "sub-stantive", and "procedural" vs. "contentful" (Traugott & Trousdale 2013:44), or measurements of frequencies effects (see e.g. Flick 2016), are well suited for this purpose and yield promising insights into the relations among constructions as far as questions of gradiences, small steps accruing to variations, entrenchment etc. are concerned. However, they do not provide substantial criteria for the distinction between the ultimate poles on the cline from lexical to grammatical, and they leave the notions of grammatical marker and grammatical paradigm (which are claimed here to have the status

of cognitively real entities) grossly underspecified, thus losing essential information about the structure and functions of language, and giving away valuable linguistic knowledge.

Taking up concepts laid out in Diewald (2009, 2015) and generalizing findings on the implicational relations between members of inflectional paradigms (Ackerman, Blevins & Malouf 2009), the paper argues for a redefinition of the traditional notion of paradigm in constructional terms, i.e. as a hyperconstruction bringing out the categorial, non-gradient specifics of grammatical categories by specifying the intra-paradigmatic vertical and horizontal relations as in themselves meaningful, thus defining the meaning/function of each filler constructions in each paradigmatic cell in terms of its position in the hyperconstruction.

Furnished with empirical illustrations concerning the grammaticalization and lexicalization of verbal periphrastic constructions in German (paradigm formation by lexical split, data on suppletion, implicational relations among paradigmatic cells leading to analogical change), the notion of paradigm as a hyperconstruction is fleshed out and put in place in a diachronic constructional model aimed at accounting for the specifics of grammaticalizing change.

References

Ackerman, Farrell, James P. Blevins & Robert Malouf. 2009. "Parts and wholes: Implicative patterns in inflectional paradigms." In: James P. Blevins & Juliette Blevins (eds.), Analogy in Grammar: Form and Acquisition. Oxford: OUP, 54-82.

Boas, Hans C. 2011. "Zum Abstraktionsgrad von Resultativkonstruktionen." In: S. Engelberg, K. Proost & A. Holler (eds.), Sprachliches Wissen zwischen Lexikon und Grammatik. Berlin/New York: Mouton de Gruyter. 37-69.

Diewald, Gabriele. 2009. "Konstruktionen und Paradigmen." In: ZGL 37, 445-468.

Diewald, Gabriele. 2015. Review of: Elizabeth Closs Traugott & Graeme Trousdale. 2013. Constructionalization and Constructional Changes. Oxford: OUD. In: Beiträge zur Geschichte der deutschen Sprache und Literatur 137, 108-121.

Flick, Johanna. 2016. „Der *am*-Progressiv und parallele *am* V-*en sein*-Konstruktionen: Kompositionalität, Variabilität und Netzwerkbildung." In: Beiträge zur Geschichte der deutschen Sprache und Literatur, 138, 163-196.

Lehmann, Christian. 2004. "Theory and method in grammaticalization." In: ZGL 32, 152-187.

Traugott, Elizabeth Closs & Graeme Trousdale. 2013. Constructionalization and Constructional Changes. Oxford: OUD.

A horizontal network approach to the development of ditransitive subschemas in English

Elizabeth Closs Traugott
(Stanford University)

Goldberg (2006: 18) proposed that a "construction-based theory" is licensed by "the idea that the network of constructions captures our grammatical knowledge *in toto*". In Goldberg's (1995, 2006) view, the network is "vertical" and dependent on syntactic form. However, the nature of constructional networks and how to think about connections between and within networks is subject to debate (Hilpert Forthcoming). Van de Velde (2014), Zehentner (2016) and Traugott (Forthcoming) suggest that some links, particularly those between polysemies, are "horizontal" and enrich vertical

connections. Horizontal networks link structurally different elements that fulfill the same function, can show multiple origins for a construction, and account for drift toward fitness (Van de Velde 2014). Assuming that Diachronic Construction Grammar offers a framework for accounting for changes in form-meaning pairing at the level of both individual constructions and schemas, I ask what value horizontal constructional networks add to vertical ones.

I outline Zehentner's (2016) account of the early history of the double object construction (DOC) (*I gave Kim a book*) and its variant, the prepositional object construction (POC) (*I gave a book to Kim*). She shows that in Old English *give* occurred almost exclusively in DOC, while verbs of speaking and of caused motion were preferred in POC (see also De Cuypere 2015). *Give* began to be used in POC in Middle English (McFadden 2002), as were verbs with Latinate origin with stress on the second syllable, e.g. *distribute* (Sówka-Pietraszewska 2011). Zehentner argues that a ditransitive schema arose in Middle English with subschemas DOC and POC. Input was from both the earlier DOC and the caused motion construction. The alternation developed in step with the systemic shift in Middle English from synthetic case-marking (DOC) to analytic preposition marking (POC).

A puzzle is why, from about 1600 on, the frequency of alternation between DOC and POC stabilized (Wolk et al. 2013). Zehentner hypothesizes that the reason for stabilization lies in the competing pressures of economy (DOC) and expressivity (POC). To answer the puzzle I compare Zehentner's analysis of the rise of *to*-alternation with the development of the *for*-alternation of the benefactive INTEND-RECEIVE subschema in Early Modern English (*build him a house/build a house for him*) as represented in COHA. In this case input was from the ditransitive and the purposive constructions. Like the CAUSE-RECEIVE subschema, INTEND-RECEIVE has been eroded and members have been lost (Colleman 2010, 2011, Colleman and De Clerck 2012). Despite declines in frequency of use and in membership of subschemas, the alternation between DOC and f*or*POC is stable over two centuries, with personal pronouns predominating. I hypothesize that economy instantiated as pronoun selection, not only in DOC but also in *for*POC, is the dominant pressure that counters potential drift toward analyticity. The "fitness" of ditransitives is maintained by using pronouns as cues to the prototype construction.

References

COHA *Corpus of Historical American English*. 1810–2009. Compiled by Mark Davies. Brigham Young University. 400 million words. http://corpus.byu.edu/coha/.

Colleman, Timothy. 2010. Lectal variation in constructional semantics: Benefactive ditransitives in Dutch. In Dirk Geeraerts, Gitte Kristiansen and Yves Peirsman, eds., *Advances in Cognitive Sociolinguistics*, 191-221. Berlin: Mouton de Gruyter.

Colleman, Timothy. 2011. Ditransitive verbs and the ditransitive constructions: A diachronic perspective. *Zeitschrift für Anglistik und Amerikanistik* 59: 387-410.

Colleman, Timothy and Bernard De Clerck. 2011. Constructional semantics on the move: On semantic specialization in the English double object construction. In Thomas Hoffmann and Graeme Trousdale, eds., special issue on Variation, Change, and Constructions, *Cognitive Linguistics* 22(1): 183-209.

De Cuypere, Ludovic. 2015. The Old English *to*-dative construction. *English Language and Linguistics* 19(1): 1-26.

Goldberg, Adele E. 1995. *Constructions: A Construction Grammar Approach to Argument Structure.* Chicago: University of Chicago Press.

Goldberg, Adele E. 2006. *Constructions at Work: The Nature of Generalization in Language*. Oxford: Oxford University Press.

Hilpert, Martin. Forthcoming. Three open questions in diachronic construction grammar. In Joel Olofsson, Evie Coussé and Peter Andersson, eds., *Grammaticalization Meets Construction Grammar*. Amsterdam: Benjamins.

McFadden, Thomas. 2002. The rise of the *to*-dative in Middle English. In David Lightfoot, ed., *Syntactic Effects of Morphological Change*, 107–23. Oxford: Oxford University Press.

Sówka-Pietraszewska, Katarzyna. 2011. On the development of a prepositional object construction with *give* verbs, motion verbs and Latinate verbs in English. In Jukka Tyrkkö, Matti Kilpiö, Terttu Nevalainen and Matti Rissanen, eds., *Studies in Variation, Contacts and Change in English, 10.* http://www.helsinki.fi/varieng/journal/volumes/10/sowka-pietraszewska/

Traugott, Elizabeth Closs. Forthcoming. Modeling language change with constructional networks. In Óscar Loureda and Salvador Pons Bordería, eds., *New Insights into the Grammaticalization of Discourse Markers*.

Van de Velde. 2014. Degeneracy: The maintenance of constructional networks. In Ronny Boogaart, Timothy Colleman and Gijsbert Rutten, eds., *Extending the Scope of Construction Grammar*, 141-180. Berlin: De Gruyter.

Wolk, Christoph, Joan Bresnan, Anette Rosenbach and Benedikt Szmrecsanyi. 2013. Dative and genitive variability in Late Modern English: Exploring cross-constructional variation and change. *Diachronica* 30(3): 382-419.

Zehentner, Eva. 2016. On cooperation and competition in Middle English ditransitves. Doctoral dissertation, University of Vienna.

Allostructions and language contact: The case of prepositional secondary predicate constructions in Middle English

Michael Percillier

(University of Mannheim)

The present paper focuses on the development of those secondary predicative constructions (SPCs) that form the *as*-alternation (Levin 1993:78–79). It thus contributes to recent and ongoing research on constructional changes and developments, which have recently received increasing attention (e.g. Israel 1996; Barðdal 2008; Petré 2012; Traugott & Trousdale 2013; D'hoedt & Cuyckens 2017; D'hoedt, De Smet & Cuyckens submitted). In Present Day English (PDE), the *as*-alternation consists of the zero-SPC (*The people elected him president*) and the *as*-SPC (*The people elected him **as** president*). The latter construction has been very recently described by D'hoedt & Cuyckens (2017) as having developed via a process of constructionalization (Rostila 2004; Noël 2007; Traugott & Trousdale 2013:22–23) in Middle English (ME), where *as* changed from a preposition to a fully-fledged SPC marker due to an ambiguous status in similative uses.

(1) The present paper proposes the alternative view that the *as*-SPC is part of a more schematic *PREP*-SPC, which existed as early as Old English (OE), with a wider set of prepositions serving as secondary predication markers. A *to*-SPC is attested in OE and early ME, as in (1), and a *for*-SPC is attested in ME, as in (2).

(1) *Hēr man hālgode Ælfēhg **tō** arcebiscope* [Chr. 1006; Erl. 138, 2 : 1050] "In this year Ælfheah was consecrated archbishop" (Bosworth et al. 2010)

(2)   *Þe ich halde, healent, ba **for** feader & **for** freond.* [c1225(?c1200) St.Marg.(1) (Bod 34) 18/36]
      "I regard you, Saviour, both as a father and as a friend" (McSparran et al. 2001)

Furthermore, the contact situation with Anglo-Norman (AN) and Old French (OF) in the ME period following the Norman Conquest (1066) saw the influx of many Romance borrowings. In the case of Romance verbs, this could also lead to a borrowing of verbal argument structures (Trips & Stein accepted). The fact that AN/OF possess SPCs with markers equivalent to *for* and *as* (*p(o)ur/comme*), as in (3), raises questions regarding possible contact origins for *for-* and *as*-SPCs, or, failing that, regarding the impact of such AN/OF argument structures on the similar *for-* and *as*-SPCs in ME.

(3)   *L'abés surrist e les blasmat, E **pur** molt fols les aesmat* [S Brend MUP 1050] "The abbot smiled and blamed them, and considered them as very mad" (Trotter 2006)

Whether the various *PREP*-SPCs should be considered allostructions, i.e. "variant structural realizations of a construction that is left partially underspecified" (Cappelle 2006:18), or separate constructions, possibly forming a constructional family (Goldberg & Jackendoff 2004:535–536), is to be investigated in the Penn-Helsinki Parsed Corpus of Middle English (Kroch & Taylor 2000). The diachronic frequency analysis will shed light on the dynamics of constructional competition, as well as constructional productivity by verifying whether constructs display preferences for specific verb types, e.g. Romance-based versus native verbs, or specific semantic verb classes, and how such preferences may undergo changes in the course of the language contact situation.

References

Barðdal, Jóhanna. 2008. *Productivity: Evidence from Case and Argument Structure in Icelandic.*. Vol. 8. (Constructional Approaches to Language). Amsterdam: John Benjamins Publishing Company.

Bosworth, Joseph, Thomas Northcote Toller, Sean Christ & Ondřej Tichý. 2010. Hálgian. *An Anglo-Saxon Dictionary Online*. Prague: Faculty of Arts, Charles University. http://www.bosworthtoller.com/018039.

Cappelle, Bert. 2006. Particle placement and the case for "allostructions". *Constructions* (Special Volume 1). 28 pages.

D'hoedt, Frauke & Hubert Cuyckens. 2017. The development of the as-Secondary Predicate Construction: Constructionalization and internalization. *Language Sciences* 59. 16–35. doi:10.1016/j.langsci.2016.06.003.

D'hoedt, Frauke, Hendrik De Smet & Hubert Cuyckens. submitted. Constructions waxing and waning: A classification and diachronic overview of the zero-Secondary Predicate Construction. *Journal of English Linguistics*.

Goldberg, Adele E. & Ray Jackendoff. 2004. The English Resultative as a Family of Constructions. *Language* 80(3). 532–568. doi:10.1353/lan.2004.0129.

Israel, Michael. 1996. The way constructions grow. In Adele Goldberg (ed.), *Conceptual Structure, Discourse and Language*, 217–230. Stanford: CSLI Publications.

Kroch, Anthony & Ann Taylor. 2000. The Penn-Helsinki Parsed Corpus of Middle English, Second Edition (PPCME2), Release 3. Philadelphia: University of Pennsylvania; http://www.ling.upenn.edu/hist-corpora/.

Levin, Beth. 1993. *English verb classes and alternations: A preliminary investigation*. Chicago: University of Chicago Press.

McSparran, Frances, Paul Schaffner, John Latta, Alan Pagliere, Christina Powell & Matt Stoeffler. 2001. For (prep.). *Middle English Dictionary*. Ann Arbor: University of Michigan. http://quod.lib.umich.edu/cgi/m/mec/med-idx?type=id&id=MED16645.

Noël, Dirk. 2007. Diachronic construction grammar and grammaticalization theory. *Functions of Language* 14(2). 177–202. doi:10.1075/fol.14.2.04noe.

Petré, Peter. 2012. General productivity: How become waxed and wax became a copula. *Cognitive Linguistics* 23(1). 27–65. doi:10.1515/cog-2012-0002.

Rostila, Jouni. 2004. Lexicalization as a way to grammaticalization. (Ed.) Fred Karlsson. *Proceedings of the 20th Scandinavian Conference of Linguistics*. http://www.ling.helsinki.fi/kielitiede/20scl/Rostila.pdf.

Traugott, Elizabeth Closs & Graeme Trousdale. 2013. *Constructionalization and constructional changes*. First edition. (Oxford Linguistics 6). Oxford: Oxford University Press.

Trips, Carola & Achim Stein. accepted. Contact-induced changes in the argument structure of Middle English verbs on the model of Old French. *Journal of Language Contact*.

Trotter, David. 2006. Asmer. *Anglo-Norman Dictionary 2 Online edition*. London: Modern Humanities Research Association. http://www.anglo-norman.net/D/asmer.

Productivity and schematicity in constructional change

Florent Perek

(University of Birmingham)

In diachronic construction grammar, many instances of language change can be captured in terms of variation in the schematicity and productivity of constructions. Schematicity refers to the level of detail stored in the representation of a construction, which determines the range of situations that it can be used to describe. Productivity refers to the range of lexical items that may fill the slots of constructions. The two notions are often thought to be interrelated (Barðdal 2008), since, typically, the more schematic a construction is, the wider the range of lexical items that are semantically compatible with it. Conversely, under the hypothesis that constructional schemas are abstracted from individual instances, change in lexical diversity should cause variation in schematicity.

This perceived interdependency has led some scholars to treat the two notions as essentially the same property. By contrast, this paper argues that schematicity and productivity should be kept separate and considered in their own right, and discusses how variation in the range of lexical items in a construction (as attested in diachronic corpora) can be interpreted and modeled as changes in the network model representation of constructions, especially in terms of varying levels of generality in the constructional meaning.

Cases are reported from the literature where constructions increase or decrease in productivity while their schematic meaning stays the same, such as the quantifiers *a lot of* N (Traugott & Trousdale 2013) and *many a* N (Hilpert 2012). Likewise, constructions are rarely attested with the complete range of lexical items compatible with their meaning throughout their history, if ever.

Hence, to better describe the relation between schematicity and productivity, a distinction should be made between the schematicity of lexical slots and the schematicity of aspects of the constructional meaning itself. Only the former is directly related to productivity. The latter may or may not be, and if so, it is often in very specific ways, which can only be assessed by examining the fine-grained semantics and pragmatics of earlier uses. Evidence for this view is presented from a study of recent

change in the *way*-construction, in which the increasing range of abstract verbs can be related to an increase in the variety of abstract situations conceptualized as motion that the construction describes, which can be analyzed as an increase in the schematicity of the motion component of the constructional meaning.

References

Barðdal, Jóhanna. 2008. *Productivity: Evidence from Case and Argument Structure in Icelandic*. Amsterdam: John Benjamins.

Hilpert, Martin. 2012. Diachronic collostructional analysis meets the noun phrase. Studying *many a noun* in COHA. In Terttu Nevalainen & Elizabeth Closs Traugott (eds.), *The Oxford handbook of the history of English*, 233–244. Oxford: Oxford University Press.

Traugott, Elizabeth C. & Graeme Trousdale. 2013. *Constructionalization and Constructional Changes*. Oxford: Oxford University Press.

Diachronic pathways of exclamative constructions: A FrameNet Constructicon approach

Alexander Ziem

Exclamatives are said to be sentence-level constructions coding an emotional state of a speaker, specifically surprise (e.g., *What a beautiful morning!)*, outrage (e.g., *She is so ignorant!*), or delight (*How sweet!*). Even though exclamatives are well studied in different theoretical frameworks, including generative (Reis 1999) and usage-based (Michaelis 2001) approaches, it is still anything but clear how broad the range of syntactic variation to express exclamative meaning really is. Even worse, there is not much empirical evidence as to how the family of exclamative constructions changed and evolved over time.

A comprehensive approach has to take account for *all* variations and constraints attested in the data; so far, however, studies of exclamatives are limited in scope for either methodological reasons (Collins 2005, d'Avis 2013, Portner/Zanuttini 2003, Rett 2009, among others) or due to a lack of corpus data (Michaelis 2001, Michaelis/Lambrecht 1996). Specifically interesting would be in-depth studies on diachronic variation concerning both single constructional elements as well as the rise and fall of members of the exclamative construction family.

Given this shortcoming, the aim of the talk is threefold. (a) It introduces a framework for a corpus-based approach to exclamatives based on annotation categories provided by the FrameNet constructicon (Fillmore et al. 2012; Ziem/Ellsworth 2012); constructional elements (CE) are annotated with respect to (i) the function they fulfill within the construction, (ii) their phrase structure and (iii) their grammatical function, if applies. (b) Based on annotated corpus data compiled from the 'archive of historical corpora' (COSMAS II, IDS, Mannheim) and the 'German text archive' (Deutsches Textarchiv, DWDS), the second goal is to capture the family of exclamative constructions as comprehensively as possible, including the relations they hold among one another. At this point, the analysis is meaning-driven, that is, subtypes are identified with regard to their semantic differences and similarities (e.g., 'surprise exclamatives' vs. 'outrage exclamatives' vs. 'delight exclamatives', etc.). (c) Finally, based on the results achieved, the third goal is to single out diachronic pathways of exclamative constructions since the 17th century (Barðdal et al. 2015): To what extent does the repertoire of exclamatives constructions belonging to one subtype vary? What is it that motivates the

emergence of new exclamative constructions at a certain point in time? I argue that beyond those exclamative constructions usually addressed in literature (V1, V2, V-end, w-interrogative exclamatives) oftentimes neglected variants like bare NP exclamatives (e.g., *A wonderful picture!*), formula (e.g., *My goodness!*), and exclamative questions, such as Incredubility constructions (e.g., *You and soccer?*), make up a significant part of the family of exclamative constructions. Following up on this, I demonstrate that they are all exclamative constructions in their own right, related to one another in a network structure that substantially changed since the 17th century due to family resemblance variation.

References

Barðdal, Jóhanna, Elena Smirnova, Lotte Sommerer & Spike Gildea (eds) (2015): Diachronic Construction Grammar. Amsterdam: Benjamins.

Collins, Peter C. (2005): Exclamative Clauses: a Corpus-based Account. – In: Proceedings of the 2004 Conference of the Australian Linguistic Society, 1-12.

d'Avis, Franz (2013): Exklamativsatz. – In: Meibauer, Jörg, Markus Steinbach und Hans Hans (eds.): Satztypen des Deutschen. Berlin/Boston: Mouton de Gruyter, 171-201.

Fillmore, Charles J., Russell Lee-Goldman & Russell Rhomieux (2012): The FrameNet-Constructicon. – In: Boas, Hans, C. und Ivan Sag (eds.): Sign-based Construction Grammar. Stanford: CSLI Publications, 309-372.

Michaelis, Laura A. (1996): The Exclamative Sentence Type in English. – In: Goldberg, Adele (ed.): Conceptual Structure, Discourse and Language. Stanford: CSLI Publications.

Michaelis, Laura A. (2001): Exclamative Constructions. – In: Haspelmath, Michael, Ekkehard König, Wulf Österreicher and Wolfgang Raible (eds.): Language Universals and Language Typology: An International Handbook. Berlin: Walter de Gruyter, 1038-1050.

Portner, Paul und Raffaella Zanuttini (2003): Exclamative Clauses: At the Syntax-Semantics Interface. – In: Language 2003/79(1), 39-81.

Reis, Marga (1999): On Sentence Types in German. An Enquiry into the Relationship between Grammar and Pragmatics. – In: Interdisciplinary Journal for Germanic Linguistics and Semiotic Analysis 4/1999, 195-236.

Rett, Jessica (2009): A degree account of exclamatives. – In: Semantics and Linguistic Theory XVIII, S.601-618.

Ziem, Alexander/Ellswort, Micheal (2015): Exklamativsätze im FrameNet-Konstruktikon. – In: Finkbeiner, Rita, Jörg Meibauer (eds.): Satztypen und Konstruktionen im Deutschen. Berlin/Boston: de Gruyter, 146-191.

Degeneracy: The evolutionary advantage of the violation of isomorphism

Lauren Fonteyn & Freek Van de Velde
(University of Manchester & University of Leuven)

In Construction Grammar approaches, language is often conceived of as a network of form-meaning pairings. In a Saussurean conception of the construction as a sign, the ideal situation would be one in which there is an isomorphic relation between form and function, meaning that homonymy and synonymy are potentially problematic (Haiman 1980; McMahon 1994: 85). Recent studies have argued that this ideal isomorphic organization of the constructicon is constantly violated:

diachronically, we find that (i) similarity in form begets similarity in function and vice versa (De Smet 2010, Fonteyn 2016), (ii) superficial (i.e. etymologically unwarranted) similarity may affect the formal realization of neighbouring constructions (Pijpops & Van de Velde 2016), and may lead to diachronic merger of distinct lineages (Van de Velde & Van der Horst 2013; Van de Velde *et al.* 2013), and (iii) forms with partially overlapping functions may attract each other leading to full overlap in functions (De Smet *et al.*, forthc.). (i) and (iii) lead to synonymy and (ii) to polysemy. In sum, constructions constantly interact on a **formal** as well as a **functional-semantic** level. This multitude of complex interactions causes that forms and functions exhibit non-isomorphic, 'many-to-many' relationships.

Such many-to-many mappings also occur in natural evolution and go under the name of 'degeneracy'. Degeneracy is defined as the property by which structurally different elements can fulfill the same function, but at the same time are involved in other functions as well (e.g. the human body uses perspiration and widening of arteries to cool off, but the former strategy is also used in increased oxygen transport and the latter in getting toxins out of the body). In language, degeneracy means that one linguistic form can come to play a role in (many) different functions (i.e. 'syncretism'; see also Robertson 1983; Norde 2014), but at the same time those functions can also be expressed by (many) other forms. Importantly, degeneracy is different from many-forms-to-one-meaning mapping (synonomy/redundancy) and from one-form-to-many-meanings (polysemy). Previous studies on linguistic degeneracy have argued that it enhances robustness of the signal (Van de Velde 2014; Winter 2014): synchronically, degeneracy adds redundancy to the linguistic expression, protecting the acoustic signal from interference by ambient noise, and diachronically, degeneracy makes languages flexible to sustain damage in times of syntactic change. Under a Diachronic Construction Grammar view, degeneracy is the reason why the sign system does not collapse when constructional changes occur: constructions are marked by several forms at once, each of which can be tweaked or repurposed without losing the meaning of the sign.

In this talk, we will look at two cases of degeneracy, and argue that they indeed make a language robust in times of change. Our first case study deals with nominalization. We will show that the wide array of nominalization strategies in English (e.g. *for you to win/you winning the award/your winning of the award/your win*) do not constitute a strictly isomorphic but a degenerate system: nominalization is achieved by different formal strategies that each realize their own distinct, yet partially overlapping set of functions. When a particular strategy becomes unavailable, then, its neighboring nominalization strategies can serve as 'stand-ins'. Our second case study deals with the order of the verb in Germanic (V1 – V2 – V-final): each verb order expresses a range of functions (e.g. V1 for questions, subordinated clauses and imperatives), and the functions they express are robustly encoded by other forms as well (e.g. rising intonation, conjunctions, subject omission, respectively). We will discuss how these degenerate systems emerged and changed diachronically, reflecting on which mechanisms (e.g. analogization) can account for the rise of many-to-many form meaning mappings, and how degeneracy affects our conception of constructional competition (Berg 2014).

References

Beckner, C, R. Blythe, J. Bybee, M.H. Christiansen, W. Croft, N.C. Ellis, J. Holland, J. Ke, D. Larsen-Freeman & T. Schoenemann. 2009. 'Language is a complex adaptive system: position paper'. *Language Learning* 59: 1-26.

Berg, T. 2014. Competition as a unifying concept for the study of language. In J. Järvikivi, P. Pyykkönen-Klauck & M. Laine (eds.), *Words & Constructions: Language complexity in linguistics and psychology.* Amsterdam: John Benjamins, 338-370.

De Smet, H. 2010. Grammatical interference: Subject marker *for* and the phrasal verb particles *out* and *forth*. In E. Trousdale & G. Traugott (eds.), *Gradience, gradualness and grammaticalization*. Amsterdam: John Benjamins. 75-104.

De Smet, Hendrik, Lobke Ghesquière & Freek Van de Velde (eds.). 2013. On multiple source constructions in language change. [Special issue] *Studies in Language* 37(3).

De Smet, H., F. D'hoedt, L .Fonteyn & K. Van Goethem. Forthc. 'The changing functions of competing forms: Attraction and differentiation'.

D'Hertefelt, S. 2015. *Insubordination in Germanic: a typology of complement and conditional constructions*, 239 pp.

Edelman, G.M. & J.A. Gally. 2001. 'Degeneracy and complexity in biological systems'. *Proceedings of the National Academy of Sciences* 98: 13763-13768.

Evans, N. 2007. 'Insubordination and its uses'. In: I. Nikolaeva (ed.). *Finiteness: theoretical and empirical foundations*. Oxford: Oxford University Press. 366-431.

Fonteyn, L. 2016. *Categoriality in language change: the case of the English gerund*. PhD Diss. KU Leuven.

McMahon, A. M. S. 1994. *Understanding Language Change.* Cambridge: Cambridge University Press.

Norde, M. 2014. 'On parents and peers in constructional networks'. Paper presented at the *CoglingDays* 6. University of Ghent (12/12/2014).

Pijpops, D. & F. Van de Velde. 2016 (forthc.). 'Constructional contamination: How does it work and how do we measure it?'. *Folia Linguistica* 50(2).

Van de Velde, F., H. De Smet & L. Ghesquière. 2013. 'On multiple source constructions in language change'. *Studies in Language* 37(3): 473-489.

Van de Velde, F. & J. van der Horst. 2013. 'Homoplasy in diachronic grammar'. *Language Sciences* 36(1): 66-77.

Van de Velde, F. 2014. 'Degeneracy: the maintenance of constructional networks'. In: R. Boogaart, T. Colleman & G. Rutten (eds.), *The extending scope of construction grammar*. Berlin: De Gruyter. 141-179.

Van de Velde, F. & M. Norde. 2016. 'Exaptatation. Taking stock of a controversial notion in linguistics'. In: M. Norde & F. Van de Velde (eds.), *Exaptation and language change*. Amsterdam: John Benjamins. 1-35.

Whitacre, J. & A. Bender. 2010. 'Degeneracy: a design principle for achieving robustness and evolvability'. *Journal of Theoretical Biology* 263: 143-153.

Winter, B. 2014. 'Spoken language achieves robustness and evolvability by exploiting degeneracy and neutrality' *Bioessays* 36: 960-967.

WORKSHOP 3

Bare nouns vs. Partitive articles: disentangling functions

Tabea Ihsane & Elisabeth Stark

(University of Geneva and University of Zurich & University of Zurich)

Description of the topic and research questions

A typological overview of partitive constructions is provided in Luraghi/Huumo (2014), a volume resulting from an SLE workshop organised in 2012. The proposed workshop is a follow-up of this event as it will focus on so-called partitive articles (henceforth PA), in comparison to bare nouns, and crucially zoom in on aspects like the **function**, the **semantics** and the **internal structure** of nominals with partitive articles and their bare counterpart, in a cross-linguistic perspective. Although there is abundant literature on both PAs, at least in Standard languages like French/Italian, and bare nouns in different languages (for French PAs cf. e.g. Bosveld-de Smet 1998, Kupferman 1979, 1994, Ihsane 2008; for bare nouns cf. e.g. contributions in Kabatek/Wall 2013 a.o.), these works do not offer a systematic comparison between the two types of nominals and many questions remain. Crucially, the proposed comparison will shed light on the interrelations between notions like **(in)definiteness, existentiality, scope, number, gender** and **individuation**.

Several Romance languages feature, inside their systems of nominal determination, an element traditionally called 'partitive article' (PA), often found in contexts where many European languages (e.g. Spanish, English, or German) have bare plural/mass nouns. The workshop aims at bringing together researchers working on various aspects pertaining to these nominals, in a comparative perspective (e.g. scope properties, semantics, syntactic distribution, syntactic analysis).

PAs are elements like *du/des* (of.the) in French and *del/dei* (of.the) in Italian, historically a conflation of *de* 'of' and the definite article, as in (1)-(2).

(1) a.		*Hier,*	*Jean*	*a*	*acheté*	*des*	*livres.* (Fr)
b.		*Ieri*	*Gianni*	*ha*	*comprato*	*dei*	*libri.* (It)
		yesterday	John	has	bought	pa.pl	books
		'Yesterday John bought (some) books.'					
(2) a.		*Hier,*	*Jean*	*a*	*bu*	*du*	*vin.* (Fr)
b.		*Ieri*	*Gianni*	*ha*	*bevuto*	*del*	*vino.* (It)
		yesterday	John	has	drunk	pa.m.sg	wine
		'Yesterday John drank (some) wine.'					

Despite their label, PAs seldom express a part-whole relation, the partitive interpretation being limited to the object of fragmentative verbs like 'eat' or 'drink' (Englebert 1992, Kupferman 1979). The most common interpretation of PAs, and the focus of this workshop, is their indefinite use (Storto 2003, Le Bruyn 2007, Cardinaletti/Giusti 2006, 2016), as in (1)-(2), where *des livres/dei libri* means '(some) books' and *du vin/del vino* '(some) wine'.

The phenomena discussed in this workshop can be classified into two groups:

1. Evolution and distribution of PAs:

Although Romance languages **developed** from Latin, not all of them have PAs. As Latin didn't have articles, a question that arises is when and why (indefinite) bare nouns gave way to nominals with

articles, especially PAs. Although the evolution of PAs is addressed e.g. by Carlier/Lamiroy (2014), detailed diachronic studies and studies of other languages, also minor languages, are missing.

Why present-day Romance languages vary as to whether PAs are **obligatory or not** is another issue that is poorly understood: in French, there are no bare nouns in argument positions (except in special contexts like coordination, cf. Roodenburg 2004) and articles, including PAs, must be used; in Italian, bare nouns may alternate with PAs (Fr. *Je bois *(du) jus*, It. *Bevo (del) succo*, "I drink juice"; Cardinaletti/Giusti 2016 for Italian). Other Romance languages don't have PAs at all but may feature a plural indefinite article (e.g. *unos* in Spanish, *nişte* in Romanian) in addition to bare nouns (Stark 2007; Carlier/Lamiroy 2014; Giusti/Cardinaletti 2016; Carlier 2016). Some Germanic varieties seem to have special "partitive markers", but they remain the exception rather than the rule. Thus, the question of the **grammaticalisation** of (partitive) articles and the diachronic changes in the **referential properties** of BNs arise and should be addressed thoroughly.

In addition to the (non)-obligatory status of PAs in a language that has PAs, many issues related to the **distribution** of nominals containing PAs (and of their bare counterparts) call for an analysis. For instance, French PAs may pattern with English bare nouns in some contexts (e.g. in (1)-(2) or with individual-level predicates as in **Des hommes sont blonds/*Men are blond*; Guéron 2006), but not in others (e.g. generic sentences like *Je déteste *des chats; *Des chiens aboient* vs. *I hate cats; Dogs bark*). Many such examples with an individual-level predicate (Dobrovie-Sorin 1997a,b) or a generic interpretation become acceptable despite the presence of a subject with a PA, if the right kind of element is present in the sentence (e.g. adjective, negation…) (Roig 2013). The role of the predicate, the information structure, operators, typically the negation, etc. in the distribution of nominals with PAs and of bare nouns needs thus to be accounted for.

2. Interpretation and internal structure

Another issue at the heart of our event concerns the (lack of) correspondence between the **interpretation** of nominals with PAs and of bare nouns. Bare nouns, for instance, only have narrow **scope**, as in (3d) (Carlson 1977, Laca 1996, a.o.), except for Brazilian Portuguese (Wall forthcoming), whereas nominals with PAs are ambiguous between c) and d), just like (3a) (Dobrovie-Dorin/Beyssade 2004, Ihsane 2008 for French; Zamparelli 2008, Cardinaletti/Giusti 2016 for Italian). This ambiguity however only concerns plural nominals with PAs. Nominals with a singular PA being unambiguous, the question arises what role **number** plays in these facts (Benincà 1980).

(3)   a.   Hoy   Juana tiene que leer   unos artículos. (c or d)   (McNally 2004:120)
       Today Juana has   that read.inf a.pl articles
       'Today Juana has to read some articles.'
b.   Hoy   Juana tiene que leer   artículos. (d only)
c. $(\exists x: \text{article}(x)) [\Box [\text{read}(j,x)]]$
d. $\Box(\exists x: \text{article}(x)) [\text{read}(j,x)]$

Singular and plural nominals with PAs do not only differ in number: the former are also mass, whereas the latter are count. How scope, number, **individuation**, and possibly additional notions like **gender** and **existentiality** interact and are related to the **indefinite** interpretation of PAs remains to a large extent mysterious. Whether (some of) these notions are encoded in the syntactic structure of nominals with a PA and/or bare nouns, and if so how/where, also has to be formalised. The comparison between nominals with PAs and bare nouns will also enlighten the much debated issue of the existence of an **empty article** in the structure of the latter (Longobardi 1994).

References

Benincá, P. (1980), "Nomi senza articolo", in: *Rivista di Grammatica Generativa* 5, 51-63.

Bosveld-de Smet, L. (1998), *On mass and plural quantification: The case of French "des"/"du"-NPs*. Amsterdam/Groningen: ILLC dissertation series/Groningen dissertation series in linguistics.

Cardinaletti, A. / G. Giusti. (2006), "The syntax of quantified phrases and quantitative clitics", in: M. Everaert / H. van Riemsdijk (eds.), *Blackwell Companion to Syntax*, vol. V. Malden, MA: Blackwell, 23–93.

Cardinaletti, A. / G. Giusti. (2016), "The syntax of the Italian indefinite determiner *dei*", in: *Lingua*. Online: http://www.sciencedirect.com/science/article/pii/S0024384116300298

Carlier, A. (2016), "The capricious evolution of the indefinite plural article *uns* and its relationship with lexical plurality in medieval French", in: *Lingvisticae Investigationes* 39/2.

Carlier, A. / B. Lamiroy. (2014), "The grammaticalization of the prepositional partitive in Romance", in: S. Luraghi / T. Huumo (eds.), *Partitives cases and related categories*. Berlin: de Gruyter Mouton, 477–519.

Carlson, G. N. (1977), "A unified analysis of the English bare plural", in: *Linguistics and Philosophy* 1, 413-56.

Delfitto, D. / J. Schroten. (1991), "Bare plurals and the number affix in DP", in: *Probus* 3-2, 155–185.

Dobrovie-Sorin, C. (1997a), "Existential arguments and existential predicates", in: A. Lawson (ed.), *Proceedings of SALT VII*. Ithaca, NY: CLC Publications, 117–134.

Dobrovie-Sorin, C. (1997b), "Classes de prédicats, distribution des indéfinis et la distinction thétique-catégorique", in: *Le gré des langues* 58–97.

Dobrovie-Sorin, C. / C. Beyssade (2004), *Définir les indéfinis*. Paris: CNRS Editions.

Dobrovie-Sorin, C. / B. Laca. (2003), "Les noms sans déterminant dans les langues romanes", in: D. Godard (ed.), *Les langues romanes*. Paris : CNRS Editions, 235-281.

Englebert, A. (1992), *Le petit mot DE. Etude de sémantique historique*. Droz: Genève.

Guéron, J. (2006), "Generic sentences and bare plurals", in: S. Vogeleer / L. Tasmowski (eds.), *Non-definiteness and plurality*. Amsterdam: John Benjamins, 219–234.

Ihsane, T. (2008), *The layered DP in French. Form and Meaning of French Indefinites*. Amsterdam/Philadelphia: John Benjamins.

Kabatek, J. / A. Wall. (2013), *New Perspectives on Bare Noun Phrases in Romance and Beyond*. Amsterdam: John Benjamins.

Kupferman, L. (1979), "L'article partitif existe-t-il ? ", in: *Le français moderne* 47, 1–16.

Kupferman, L. (1994), "*Du* : un autre indéfini ? ", in: *Faits de Langue* 4, 195–203.

Laca B. (2013), "Spanish bare plurals and topicalization", in: J. Kabatek / A. Wall (eds.), 95-120.

Laca, B. (1996), "Acerca de la semántica de los 'plurales escuetos' del Español", in: I. Bosque (ed.), *El sustantivo sin determinación. La ausencia de determinación en la lengua Española*. Madrid: Visor Libros, 241-268.

Le Bruyn, B. (2007), "The partitive article *dei* in Italian", in: *Linguistics in the Netherlands* 24, 138–149.

Longobardi, G. (1994), "Reference and proper names: A theory of N-Movement in syntax and Logical Form", in: *Linguistic Inquiry* 25, 609-665.

Luraghi, S. / T. Huumo (Eds.). (2014), *Partitive cases and related categories*. Berlin/Boston: Mouton de Gruyter.

McNally, L. (2004), "Bare plurals in Spanish are interpreted as properties", in: *Catalan Journal of Linguistics* 3, 115-133.

Roig, A. (2013), "Des N et du N sujets : Des Généricités toujours refusées?", in: *Travaux De Linguistique: Revue Internationale De Linguistique Française* 67, 61–89.

Roodenburg, J. (2004). "French Bare Arguments Are Not Extinct: The Case of Coordinated Bare Nouns", in: *Linguistic Inquiry* 35, 301-313.

Stark, E. (2007), "Gender, number, and indefinite articles: About the 'typological inconsistency' of Italian", in: E. Stark / E. Leiss / W. Abraham (eds.), *Nominal Determination: Typology, context constraints, and historical emergence*. Amsterdam: John Benjamins, 49–71.

Storto, G. (2003), "On the status of the partitive determiner in Italian", in: J. Quer / J. Schroten / M. Scorretti / P. Sleeman / E. Verheugd (eds.), *Romance languages and linguistic theory 2001: Selected papers from Going Romance 2001*. Amsterdam/Philadelphia: John Benjamins, 315–330.

Wall, A. (forthcoming), *Bare nouns in Brazilian Portuguese.* Amsterdam/Philadelphia: John Benjamins.

Zamparelli, R. (2008), "Dei ex machina. A note on plural/mass indefinite determiners", in: *Studia Linguistica* 62-3, 301-327.

Configurationality in Romance and the development of the partitive article

Béatrice Lamiroy & Anne Carlier
(University of Lille, CNRS-UMR STL & KU-Leuven)

In Romance, the partitive construction (derived from Latin *de* + definite NP) sporadically appears not only in the early stages of French and Italian, but also of Spanish. Yet only French has fully grammaticalized the partitive into a non-singular indefinite article *du, de la, des* (Carlier 2007). In Italian, although the same structure also led to an indefinite non-singular article (*del, della, dei, delle*), its use remains optional and strongly varies according to the region (being more widespread in the North than in the South). Spanish did not grammaticalize the partitive construction into an article at all, but extended the singular indefinite article *uno, -a* to plural uses (*unos, -as*), which also remain optional (Stark 2007; Carlier & Lamiroy 2014; Giusti/Cardenaletti 2016).

In this paper, we will analyze the development and the status of the partitive article, focusing on its insertion in the syntactic pattern of the Noun Phrase. We will argue that the differences between the three Romance languages can be accounted for by the (non)-configurationality hypothesis, developed at first by Hale (1983, 1989) in his analysis of the syntactic specificities of Warlpiri, an Aboriginal language of Central Australia. Since Hale's seminal paper, Ledgeway (2012) and Luraghi (2011) showed that the evolution from Latin to Romance is globally characterized by an increasing configurationality. Although we fully subscribe to this assumption, our claim here is that this evolution has reached a far more advanced stage in French than in any other Romance language.

Our research will combine a diachronic and a comparative perspective. On the one hand, we will show how the syntactic pattern of the Noun Phrase is configured through the different evolutionary stages of French into a constrained, cohesive and hierarchically organized pattern, with a ternary structure "Determiner + Noun + Complement or Modifier" and how the newly created partitive article fits into this new pattern. On the other hand, we will compare the structural constraints on the Noun Phrase in Modern Spanish, Modern Italian and Modern French. By combining the diachronic and comparative perspective, we will highlight the similarities between Modern Spanish and Old French as well as between Modern Italian and Middle French. From a more general viewpoint, this study will illustrate how more conservative Romance languages such as Spanish and Italian can shed light on the

earlier stages of French and, conversely, how the diachronic analysis of French allows a better understanding of the morpho-syntactic structures of other Romance languages in their modern stage.
 Our analysis is based on a quantitative and a qualitative analysis of two types of corpora, viz. parallel translation corpora and separate corpora for each language and language stage.

Corpora
French: *Base Corptef ; Base du français medieval* (ENS-Lyon)*; Base du Dictionnaire du moyen français; Frantext* (CNRS-UMR Atilf)
Spanish: CREA - *Corpus de Referencia del español actual ;* CORPES XXI – *Corpus del español del siglo XXI ;* Corpus BYU
Italian: CORIS - *Corpus di Italiano Scritto*

References
Cardinaletti, A. & G. Giusti (2016). The syntax of the Italian indefinite determiner *dei*. *Lingua*, 181, 58-80.
Carlier A. (2007). From Preposition to Article: The Grammaticalization of the French Partitive. *Studies in Language* 31: 1, 1-49.
Carlier, A. & B. Lamiroy (2014). The grammaticalization of the prepositional partitive in Romance, 477-519. In S. Luraghi & T. Huomo Eds. *Partitive Cases and Related Categories*. Berlin: De Gruyter.
Hale, K. (1983). Warlpiri and the grammar of non-configurational languages. *Natural Language and Linguistic Theory*1, 5–47.
Hale, K. (1989). On nonconfigurational structures. In L. Marácz & P. Muysken Eds. *Configurationality: The typology of asymmetries*, 293–300. Dordrecht: Foris.
Jelinek, E. (1984). Empty categories, case, and configurationality. *Natural Language and Linguistic Theory* 2, 39-76.
Lamiroy, B. 2011. Degrés de grammaticalisation à travers les langues de même famille. *Bulletin de la Société Linguistique de Paris,* tome XIX, 167-192.
Ledgeway, A. (2012). *From Latin to Romance: Morphosyntactic Typology and Change*. Oxford: OUP.
Lehmann, Ch. (1991). The Latin nominal group in typological perspective. In R. Coleman Ed. *New Reflections on Latin Linguistics*, 203-232, Amsterdam: Benjamins.
Luraghi, S. (2010). The rise (and possible downfall) of configurationality. In S. Luraghi & V. Bubenik Eds. *Continuum Companion to Historical Linguistics*, 212-229. London: Continuum.
Stark, E. (2007). Gender, number, and indefinite articles: About the 'typological inconsistency' of Italian. In: Elisabeth Stark, Elisabeth Leiss and Werner Abraham Eds. *Nominal Determination: Typology, context constraints, and historical emergence*. 49–71. Amsterdam: Benjamins

Silvia Luraghi
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A Protocol for indefinite determiners in Italo-Romance dialects

Giuliana Giusti

(University of Venice)

Cardinaletti and Giusti (2015a,b) decompose indefinite determiners in two structural positions whose overt or non-overt realization provide the major variation across Italo-Romance:

(1)	SpecDP	D		
a.	0	0	acqua/vino	violette
b.	0	art	l'acqua / il vino	le violette
c.	di	art	dell'acqua / del vino	delle violette
d.	di	0	di acqua / di vino	di violette

On the basis of three AIS-maps; namely, 637 "[to look for] violets", 1037 "[if there was] water", and 1343 "[go to the cellar] to take wine", Cardinaletti and Giusti (to appear) show that the four forms distribute across the peninsula intersecting one another. The vertical axis regards the realization of D, which is conservatively null at the northern and southern extremes and overt in the rest of the Peninsula. The horizontal axis regards the realization of indefinite *di* in SpecDP. At the extreme North-West overt *di* combines with covert D. In the area of intersection (Pianura Padana) with overt realization of D, *di*+art is found.

However, only three areas consistently display a unique form in the three AIS maps:

- the extreme North especially the Grigioni area in Switzerland, which only displays the zero determiner;
- the extreme West of Val d'Aosta and Piedmont, which only displays bare *di*;
- the Center-South to northern Calabria and Apulia, which only displays the definite article.

In the other areas, more than one form is attested. Here the question is whether these forms freely co-vary or whether they convey different nuances of indefinite interpretation is the case of Italian:

(4) a. Ho bevuto vino / Ho raccolto violette   zero determiner

    [I] have drunk wine / [I] have picked violets

  b. Ho bevuto il vino / Ho raccolto le violette   definite article

    [I] have drunk the wine / [I] have picked the violets

  c. Ho bevuto del vino / Ho raccolto delle violette indefinite *di*+art

  [I] have drunk di-art wine / [I] have picked di-art violets

The present paper will bring the dialectal search one step further presenting the results of an ongoing research to give answer to the following empirical questions:

- Are the relevant semantic / pragmatic features the same throughout the Peninsula?
- Are those found in Italian?
- How do these features distribute if only two forms are present?
- How does the local dialect influence the regional register of Italian?
- How has the national language changed the local dialects?

References

AIS = Jahberg Karl, Jud Jakob, *Sach- und Sprachatlas Italiens und der Südschweiz*, Zofingen, Ringier, 1928-1940.

Cardinaletti, A. and G. Giusti (2015a) Cartography and optional feature realization in the nominal expression. In Shlonsky, U. (ed) *Beyond Functional Sequence.* OUP 151-172.

Cardinaletti, A. and G. Giusti (2015b) *Il determinante indefinito: analisi sintattica e variazione diatopica* in C. Bruno, et al (eds.), *Plurilinguismo / Sintassi*, Atti SLI 59, Bulzoni, 451-466.

Tisato, G. (2009) AIS Digital Atlas and Navigation Software *http://www3.pd.istc.cnr.it/navigais/*

Partitive articles versus absence of articles

Carmen Dobrovie-Sorin

(CNRS-LLF, University of Paris 7)

Although French DPs built with so-called partitive articles (*des, du, de la*, PA henceforth) constitute the closest counterparts of existential Bare NPs (Bare Plurals or Bare Mass NPs) in other languages (Romance and beyond), their internal syntax is obviously more complex. Adequate analyses need to make explicit the syntax and propose compositional semantic analyses that derive the same type of interpretation from distinct syntactic configurations. Concerning the syntax, we agree with Cardinaletti & Giusti's (2016) arguments against the view that PA-indefinites are PPs headed by a preposition followed by a definite (or kind-referring) DP (Chierchia 1998, Zamparelli 2008). This negative generalization holds not only for Italian *dei/delle* but also for French PA-indefinites. We will however refine Cardinaletti & Giusti's (2016) syntactic analysis, according to which *dei/delle* is a plural indefinite article sitting under Det°. This may be true for the wide-scoped *dei/delle*, but not for the narrow-scoped *dei/delle*, nor for French *des*. My core syntactic proposal will be that *des/du* indefinites in French, as well the narrow-scoped *dei*-indefinites in Italian are to be analyzed on a par with the so-called ‚pseudo-partitives', e.g., [$_{\text{MeasP}}$deux douzaines] [d'étudiants], [$_{\text{MeasP}}$cent grammes] [de beurre], from which they differ in that the MeasP is null but interpretable as ‚some unspecified amount of'. The different syntactic make-up of PA-indefinites and BNPs should be able to account for several distributional differences, among which we list two here. (i) PAs can be used to build DP-denotations out of adjectives, e.g., *J'ai acheté du moderne/de l'ancien*, whereas bare syntax (i.e., lack of Det) cannot be used to convert adjectives into Ns, e.g., Engl. **I've bought modern/old* or Romanian **Am cumpàrat modern/vechi*,[I] have bought modern/old'; (ii) In French, *des/du* cannot be used in the scope of negation (**Jean n'a pas lu des livres*); but the bare NP cannot do so either (compare languages without PAs, in which the bare NP is used in negative environments); instead the ‚bare' partitive preposition *de* must be used, e.g., *Je n'ai pas de pain/d'enfants*. French thus appears to use three distinct types of DPs (PA-indefinites, bare NPs and DE-NPs) in those configurations in which languages without PAs use just bare NPs. Italian, on the other hand, has PA-indefinites and BPs (which are used in a larger number of contexts than in French) but not DE-NPs (but see left-dislocations). An in-depth empirical analysis of the contrasts between Italian and French will be conducted. An explanatory account will need to answer the following questions: why is it that PA-indefinites cannot appear in the scope of Neg in French, but can do so in Italian? Why is it that bare NPs cannot appear in the scope of Neg in French? Why is it that bare NP syntax cannot convert Adj's into Ns (crosslinguistically)? Answers to these questions cannot be found in the existing literature (Bosveld de Smet 1998, Cardinaletti & Giusti 2016, Zamparelli 2008, Carlson 1977, Chierchia 1998), which has concentrated on the similarities between PA-indefinites and BNs but largely disregarded their differences.

References

Bosveld de Smet, L. 1997. On mass and plural quantifi cation. The case of French des/du NPs. Thèse de doctorat, Gröningen.

Cardinaletti, A., Giusti, G., 2016. The syntax of the Italian indefinite determiner dei, Lingua 181, 58-80.

Carlson, G.N. 1977. A unified analysis of the English bare plural. Linguistics and Philosophy 1: 413–457.

Chierchia, G., 1998. Partitives, reference to kinds and semantic variation. In: Lawson, A. (Ed.), Proceedings of Semantics and Linguistic Theory, vol. VII. CLC Publications, Ithaca, pp. 73--98.

Zamparelli, R., 2008. Dei ex-machina: a note on plural/mass indefinite determiners. Stud. Linguist. 63 (3), 301--327.

The contribution of gender in bare nouns

Artemis Alexiadou, Janayna Carvalho, & Marcelo Ferreira

(Humboldt University Berlin, Leibniz-ZAS; University of São Paulo /FAPESP; & University of São Paulo)

In this paper, we investigate bare singular nouns in Brazilian Portuguese (BrP BNs) and fake mass nouns (FMNs) in Hebrew. FMNs and BrP BNs (i) are not endowed with overt D or number, and (ii) behave as mass nouns with respect to some tests but as count nouns with respect to others (cf. Pires de Oliveira & Rothstein 2011, for BP data; Alexiadou 2016, for FMNs).

We argue that the properties of BNs and FMNs can be accounted for under a Distributed Morphology approach to gender. While in both languages gender is a feature on n, in BrP it categorizes roots as nouns, while in Hebrew it creates nouns out of other nouns, and contributes a collective reading (cf. Fausto (2014)).

BrP: Duek (2012) notes that natural gendered BrP BNs can be resumed with a plural pronoun in a subsequent clause see (1)-(2), and trigger agreement with a specific class of adjectives (3)- (4), while BNs bearing grammatical gender cannot.

(1) *Batata doce faz mal. Elas queimam o estômago.
 Potato sweet makes bad. They burn the stomach.
 'Sweet potatoes are bad for your healthy. They burn your stomach.'

(2) Mulher chora muito. Elas são muito emocionais.
 Woman cries a.lot They are very emotional.
 'Women cry a lot. They are very emotional.'

(3) Maçã é gostoso. /*gostosa.
 Apple.FEM is tasty.MASC/*tasty.FEM
 'Apples are tasty.'

(4) Professora é vaidosa/*vaidoso.
 Teacher.FEM is vain.FEM/*vain.MASC
 'Teachers are vain.'

Building on Kramer (2015), Lowenstamm (2008), Alexiadou (2004) and others, we take gender features to be on n. We adapt Kramer's analysis for Spanish gender to BrP, as in (5):

(5) Gender features on 'n'

a. n i[+FEM]   female natural gender

b. n i[-FEM]   male natural gender

c. n   no natural gender (or natural gender is irrelevant or unknown)

d. n u[+FEM]   feminine arbitrary gender (*plant-a, mal-a*, etc. plant, bag)

According to Kramer, only roots that were categorized with interpretable gender will have a D with interpretable features. We assume that BrP BNs have null Ds (Schmitt & Munn 1999, Cyrino & Espinal 2015, a.o.). The difference between naturally and arbitrarily gendered nouns relates to the lack of interpretable features on D in the latter. As interpretable features on D are indexical (cf. Duek 2012 for some discussion of BrP along these lines), whereas non-interpretable are not, only natural gendered BNs can be resumed and enter agreement, while arbitrary ones cannot.

In Hebrew, by contrast, grammatical gender derives FMNs from other nouns, see (6) from Doron and Müller (2013). Gender does not contribute to the indexicality of the DP, but it introduces a collective reading, which explains the distributive reading of these nouns in the absence of number.

(6) **basic noun**   al-e

                            leaf-masc

      plural   al-im

                            leaves

        FMN   alv-a

                              foliage-FEM

In sum, we show that gender explains properties of BNs that are neglected up to now, the focus having been the lack of (overt) number. Our study contributes to the crosslinguistic typology of bare nouns and the role of gender in nouns without overt determiners.

References

Alexiadou, A. (2015). Deriving fake mass nouns. In *Proceedings of NELS 45*, 11-24. GLSA: UMass/Amherst.

Cyrino, S., & Espinal, M. T. (2015). Bare Nominals in Brazilian Portuguese: more on the DP/NP analysis. Natural Language & Linguistic Theory, 33(2), 471-521.

Duek, K. (2012). Bare nouns and gender agreement in Brazilian Portuguese. In 48th Annual Meeting of the Chicago Linguistics Society (CLS 48), University of Chicago. Available at http://people. ucsc. edu/~ kduek/Karen% 20Duek.

Doron, E., & Müller, A. (2013). The cognitive basis of the mass-count distinction: Evidence from bare nouns. In *Crosslinguistic Studies on Noun Phrase Structure and Reference* (pp. 73-101). Brill, Leiden.

Picallo, M. C. (2008). Gender and number in Romance. *Lingue e linguaggio*, 7(1), 47-66.

Pires de Oliveira, R., & Rothstein, S. (2011). Bare singular noun phrases are mass in Brazilian Portuguese. *Lingua*, 121(15), 2153-2175.

Schmitt, C., & Munn, A. (2002). The syntax and semantics of bare arguments in Brazilian Portuguese. *Linguistic variation yearbook*, 2(1), 185-216.

Bareness and nominal semantics in Afro-Yungueño

Danae Perez & Albert Wall

(University of Zurich & University of Zurich)

In this paper, we provide new data and a novel analysis of bareness phenomena in the Afro-Yungueño (AY) NP, and compare them with accounts of the Brazilian Portuguese NP. AY is a vanishing variety of Spanish spoken by the small African-descendant community in Bolivia. Its considerable divergence from patrimonial Spanish has been discussed in previous studies to some extent (Lipski 2008; Sessarego 2014), yet we argue that methodological challenges in the documentation of this variety have led to gaps in the analysis of bare nouns in AY. On the basis of spontaneous speech recordings, field notes, and interviews, we present an entirely different analysis of the determiner system in order to show that basilectal AY lacks definite articles altogether (1a) and only has an indefinite one (1b).

(1) a. *carro taba yindo por andi   don Abrahán*

car   was going by   where Sir A.

'The car was passing by A.'s place.'

b. *nojotro tenía un reunión*

we   had a meeting

'We had a meeting.'

This rather exceptional constellation is important for a more complete understanding of the whole range of possible cross-linguistic variation (Chierchia 1998: 362). We will argue that the availability of interpretations of bare nouns does not necessarily depend on the existence of articles in a language. (In)definite readings and scopal properties require independent explanations, e.g. in terms of information structure (Wall 2015). AY is also interesting diachronically, since acrolectal AY tends towards incorporating definite articles from vernacular Spanish.

AY is additionally exceptional because it features a pre-nominal marker *lu*, which has been analyzed by Perez (2015) as a plural marker. This is plausible since the presence of a definite plural article would be unexpected in the absence of a singular one. Furthermore, *lu* co-occurs with other determiners as in (2):

(2) *eje lu tiyito*

this PL uncle.DIM

'these black people'

We re-cast the plural marker analysis by making two further observations: *lu* correlates with definite interpretations of the NP, and it gives distributive/individuating readings to collectives (3). In consideration of this, we propose to analyze *lu* as a marker of *nominal aspect* (Rijkhoff 2002).

(3) *quedó ya   lu juventú*

stayed already PL youth

'the youths have remained'

In our analysis, we use Rijkhoff's (2002) distinction of nominal *seinsarten*, and propose that common count nouns are *set nouns* in AY, and the marker for sets with more than one member (2) also applies to collective sets (3). This rather exceptional configuration, with an element that marks plural in common nouns as well as individuation in collectives, can thus receive a unified account under a *set noun* analysis.

Comparing AY with Brazilian Portuguese, we will show that although less restructured varieties of AY seem structurally similar to vernacular Brazilian Portuguese, a more detailed analysis of its structures and varietal architectures indicates that unlike Brazilian Portuguese, AY does not seem to be

a case of "irregular linguistic transmission" only (Lucchesi&Baxter, 2015). This supports the hypothesis that AY may have originated from a creole (Perez 2015).

References

Chierchia, Gennaro. 1998. Reference to kinds across languages. *Natural Language Semantics* 6, 339-405.

Lipski, John. 2008. *Afro-Bolivian Spanish*. Madrid/Frankfurt: Iberoamericana/ Vervuert.

Lucchesi, Dante; Baxter, Alan. 2009. *A Transmissão Linguística Irregular*, in: Dante Lucchesi, AlanBaxter & Ilza Ribeiro (eds.), *O Português Afro-Brasileiro*, Salvador, Edufba,101-124.

Perez, Danae M. 2015. Traces of Portuguese in Afro-Yungueño Spanish? *Journal of Pidgin and Creole Languages* 30(2), 407–434.

Rijkhoff, Jan. 2002. *The noun phrase*. Oxford: Oxford University Press.

Sessarego, Sandro. 2014. *The Afro-Bolivian Determiner Phrase. A Microparametric Account*. Columbus: The Ohio State University Press.

Wall, Albert. 2015. Bare nominals in Brazilian Portuguese – an integral approach. PhD dissertation, University of Zurich.

The Basque partitive marker and its existential interpretation

Urtzi Etxeberria
(CNRS-IKER)

The Basque partitive marker [-(r)ik] can only be attached to transitive objects (1) and to intransitive subjects (2) (de Rijk 1972) and requires licensing by some polarity element.[18]

(1)	Martxelek ez du baloi-rik ekarri	(2)	Bilerara ez da irakasle-rik etorri
	Martxel.erg not aux ball-part bring		meeting-to not aux teacher-part come
	'Martxel didn't bring any ball'		'No teacher came to the meeting'

Its meaning denotes an unspecificied quantity of whatever the NP denotes. In the examples in (1) to (3) the speaker does not have a singularity or a plurality in mind. So the partitive denotes the whole lattice and is thus number neutral (Link 1983; cf. Etxeberria 2014).

This paper argues that the partitive marker is the negative form of the existential interpretation (in absolutive case) of the Basque definite article (D) [-a(k)] (cf. Irigoien 1985, de Rijk 1972, Etxeberria 2005, 2010, 2014, in prep).

(5)   Amaiak   **goxoki-ak** jan ditu.   [√definite / √existential]
       Amaia.erg candy-D.pl eat aux
       'Amaia has eaten (the) candies'

If the plural D gets a definite interpretation in (5), the negative form of the sentence will contain a definite DP (6a); however, if the plural DP in (5) gets an existential interpretation the negation of the sentence will contain the partitive (6b).

(6a)   Amaiak   ez ditu **goxoki-ak** jan   [√definite / *existential]
        Amaia.erg not aux candy-D.pl eat

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[18] Other syntactic environments that accepts the partitive marker are: (i) existential sentences, (ii) partial interrogatives, (iii) *before* clauses, (iv) *without* clauses, (v) superlatives, (vi) with some quantifiers. Cf. de Rijk (1972); Etxepare (2003).

'Amaia has not eaten the candies'

(6b)   Amaiak   ez du **goxoki-rik** jan   [*definite / √existential]
          Amaia.erg not aux candy-part eat
          'Amaia has not eaten any candy'

Observing the behaviour of the Basque D in its existential interpretation Etxeberria (2005, 2010, in prep) argues in favour of the Neocarlsonian (NC) approach (Chierchia 1998, Dayal 2004), where the existential interpretation is argued to be dependent on the kind-level reading via the *Derived Kind Predication* (Chierchia 1998). In order to obtain the existential reading the definite DP must first get a kind-level meaning, a condition that is fulfilled (5).

If the partitive marker is the negative form of the existential interpretation of the Basque D, it follows that the partitive will also be interpreted existentially by means of a covert existential quantifier.

The rise and fall of partitivity markers in Germanic varieties

Elvira Glaser
(University of Zurich)

This talk is dedicated to a comparative functional analysis of different 'partitivity markers' in the Germanic noun phrase, both in a diachronic and diatopic perspective, with a special focus on non-standard varieties. In the older Germanic languages, as in other IE languages, one of the functions of genitive case is the marking of (pseudo-)partitivity (Luraghi/Huumo 2014). The main function of the independent partitive genitive (Seržant 2014), the partial affection of the referent, can be illustrated by examples from OHG and MHG, where we find genitive case in object position (2, 3) and, less so, in subject position (1).

    1. OHG *joh brast in thar thes wines* (Otfr. 2.8.11)
    'and they also lacked wine' (lit. the:GEN wine:GEN was lacking them:DAT)
    2. OHG *kebet uns iuuares oles* (Mons. 20.1)
    'give us your:GEN oil:GEN'
    3. MHG *er [...] tranc da zuo eines wazzers* (Iw. 3310)
    ‚he drank some water (a:GEN water:GEN) in addition'

Although researchers do not agree on the exact motivation for the choice of genitive case instead of an accusative in OHG and MHG, there is no doubt that the decline of the genitive case beginning at the end of MHG necessarily also led to the loss of the possible expression of (pseudo-)partitivity. Analyzing this process we also have to pay attention to the possible interaction with definiteness, as the genitive forms were often accompanied by a determiner.

There are, however, still varieties of Continental Germanic showing remnants of the genitive expressing (pseudo-)partitivity, like Valais and Walser dialects (4) (Henzen 1932: 122-124), and Luxembourgish (5) (Döhmer in pr.). We will take a closer look at the formation, the distribution and the semantics of these NP-structures. In other varieties the loss of the genitive was accompanied by the development of new markers or reuse of forms, such as the preposition *von* ('from') in (6) in southern Rhine Franconian (SRhF) (Glaser 1992), or *van* in Dutch (cf. Luraghi/Kittilä 2014: 23).

    4. Valais *Weldr den dæru šteinu?*
    ‚Do you want some of these stones? (lit. the:GEN stones:GEN)
    5. Lux. *Et leet een dann där klenger Steng dohinne.*

'Then, one places some small stones here (lit. it lay one then the:GEN small:GEN stones:GEN here)

6. SRhF *Des sin doch fun dainə schdudendə*?
‚These are some of your students, aren't they?' (lit. from your students)

7. Dutch *Er lagen van die dikke boeken op de tafel*
                 of DEM.PL   thick:PL book:PL
'Some thick books lay on the table

In many contexts, these markers pattern with functions and the distribution of the 'partitive article' in French and Italian. This may also be true for Bavarian dialects, showing an indefinite article with mass nouns (8), expressing a partial-affection reading (cf. Kolmer 1999), and some Scandinavian dialects where we find a definite article with mass nouns showing "non-delimited use" (9) (Dahl 2015: 50, 54).

8. *Hoi a Wossa!*
'Fetch some water!' (lit. a water)

9. *Sö skari wärm mjötje a num*
'So I shall warm some milk (lit. milk-the) for him'

I will try to show functional overlap and differences between these ‚partitivity markers' in order to better understand their semantics and distribution. In particular, I shall analyze the specific overlap with (in)definiteness and discuss the relation between marked nouns and bare nouns, co-existing in the above-mentioned varieties, which makes a big difference to the situation in French.

References

Dahl, Östen (2015): *Grammaticalization in the North. Noun phrase morphosyntax in Scandinavian vernaculars.* Berlin : Language Science Press.

Döhmer, Caroline (in pr.): A New Perspective on the Luxembourgish Genitive. In: Ackermann, Tanja et al. (ed): *Germanic Genitives*. Amsterdam: Benjamins (Studies in Language Companion Series).

Glaser, Elvira (1992): Umbau partitiver Strukturen in der Geschichte des Deutschen. *Sprachwissenschaft* 17, 113-132.

Henzen, Walter (1932): Der Genetiv im heutigen Wallis, *Beiträge zur Geschichte der deutschen Sprache und Literatur* 56, 91-138.

Kolmer, Agnes (1999): *Zur Mass/Count-Distiknktion im Bairischen: Artikel und Quantifizierung.* (Arbeitspapier 34. Institut für Linguistik, Universität zu Köln). Köln.

Luraghi, Silvia / Tuomas Huumo (ed.), (2014): *Partitive cases and related categories*. De Gruyter, Berlin/Boston.

Luraghi, Silvia / Seppo Kittilä (2014): Typology and diachrony of partitive case markers. In Luraghi / Huumo 2014, 17-62.

Seržant, Ilja A. (2014): The Independent Partitive Genitive in North Russian. In Seržant, Ilja A. /Björn Wiemer (ed.) *Contemporary Approaches to Dialectology. The Area of North, North-west Russian and Belarusian Dialects.* Bergen: Department of Foreign Languages, 270-329.

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WORKSHOP 4

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Beyond Information Structure

Dejan Matić & Pavel Ozerov

(University of Grazn & Hebrew University of Jerusalem)

Growing cross-linguistic evidence suggests the necessity of a shift in the functional approach to Information Structure (IS) along the same theoretical lines that recently re-shaped a number of domains of linguistic inquiry. Such shifts have taken place in the study of word classes (Haspelmath 2012) and grammatical relations (Bickel 2011). Modern approaches dispense with the postulation of universal categories and the exploration of their cross-linguistic expression. Instead, they replace this method with detailed studies of language-specific phenomena and their ensuing classification and comparison. In the case of IS the typological outcome of such a shift will result in the radical departure from the assumed universality of the IS categories.

Traditionally, theoretical approaches to IS define a set of pragmatic-semantic categories and explore how these categories are expressed cross-linguistically (e.g. Rooth 1992, Lambrecht 1994). The conceptual necessity of these categories is claimed to be rooted in the basic principles of communication and information-processing, such as e.g. the need for a cognitive index to store a proposition ('topic' in Vallduvi's (1992) approach), or the importance of update (a central feature of 'focus' in Lambrecht 1994).

However, a growing number of empirical language-specific studies attempting to analyse presumable IS-marking devices discover their diverse primitive functions, which have no direct relationship to presumed IS categories. In addition to giving a better account of the basic function, usage, and distribution of these devices, this research also sheds light on the actual origin of "information structural" phenomena. They show how diverse primitive functions can interact with the context, rendering sets of interpretations related to such concepts as "aboutness", "contrast", "unexpectedness", etc., that are typically used to characterise IS notions.

Matić and Wedgwood (2013) provide extensive argumentation for this shift and mention a number of case studies which demonstrate the heterogeneity of some prima facie IS markers. For instance, the Quechua particle -mi had previously been analysed as a marker of narrow focus (Muysken 1995, Sanchez 2010). However, although this characterisation is applicable within the limited set of IS tests, it fails to address the full span of functions of the particle. Its analysis along the lines of evidentiality (Faller 2002: 150) or as an "interactional device [of] persuasive intention" (Behrens 2012: 209) both provides a unified account for its functions and traces the interactional source of a presumable "focal" effect, which arises in certain contexts. In another case, the apparent contrastivity of the Even suffix -d(A)mAr turns out to stem from its lexical meaning, which indicates that the denoted noun is included in a set of relevant concepts. As such, it can occur with contrastive referents, but also e.g. with kinship terms which represent sets like {father, child}) (Matić and Wedgwood 2013:152). In yet another similar case, stand-alone nominalised sentences in Burmese, previously argued to be "cleft-sentences" (Simpson 2008, Hole and Zimmermann 2013), are used to communicate speaker's emotions, narrator's personal comments, visualise storyteller's memories and – more broadly – impart emotional involvement of the speaker (Ozerov 2015). As such, they are also used in the context of contradiction, correction, or an opinionated selection from a set of alternatives – typical instances of focus elicitation.

In fact, after decades of cross-linguistic studies of IS, hardly any example of a purely IS device has been identified. Even the very prototypical case of an IS construction – cleft-sentences in English – turns out to represent a rather different phenomenon upon closer examination. It is only the studies of its interactional discourse functions that were able to give a coherent account of its distribution ('state-making device' Delin and Oberlander 1995, 'inquiry terminating construction' Velleman et al. 2012), which also explains its typical focal interpretation.

Thus, it is repeatedly found that IS accounts of presumable IS devices are insufficient: the IS analysis alone can hardly ever explain the full set of functions of apparently relevant markers. Moreover, it does not predict the idiosyncratic list of precise IS features pertinent to each particular marker. Coherent full-scale analyses show that primitive functions of these markers lie beyond IS, while IS-interpretations often turn out to be particular usages of their primitive functions.

This implies that only a coherent cross-linguistic study of relevant language-specific categories would be able to shed light on the way IS-interpretations appear as a result of the interaction of a basic function of diverse devices with the context. It will have to describe and explain how interactional categories, stance, intersubjective alignment, particular discourse structuring and lexical devices produce dynamic structuring of information in the course of communication. Moreover, this research perspective strongly appeals to the identification, description and analysis of currently poorly understood categories from the field of interaction.

Only when these categories are properly described and compared will we be able to produce generalisations regarding their natures. As a result of this process, we may end up with a modified version of typological categories that would resemble IS-primitives. However, it is not impossible that the outcome will be radically different. For instance, an apparent typology of "verum focus" (He did go!) demonstrates that in this context Albanian uses admirative verbal forms, while Quechua employs the abovementioned evidential-persuasive particle mi (Behrens 2012:231); Burmese creates the required effect by stance marking (Ozerov 2015:261-293). Hence, what starts out as a typological study of a "focus"-construction, ends up representing a typology of interactional, persuasive-contradictive techniques.

We invite abstracts of empirical and theoretical studies that deal with the abovementioned topics, such as:

- empirical studies of language-specific IS-like devices that investigate their overall function and discuss the nature and origin of their IS-functions
- theoretical and empirical studies that investigate the relation between IS and the fields of interaction, cognition, discourse-structure
- comparative studies of IS-related devices with detailed accounts of their precise functional similarities and differences
- theoretical studies that critically discuss the proposed framework and its relation to currently established theories of IS
- theoretical studies of broader IS-like phenomena ("emphasis", "attention", "aboutness") in discourse and their marking
- empirical studies of particular strategies, functions and marking employed in discourse in the contexts of "IS-tests", e.g. answers to content questions, corrections, frame-setting etc.

References

Behrens, Leila. 2012. 'Evidentiality, Modality, Focus and Other Puzzles: Some Reflections on Metadiscourse and Typology.' In *Practical Theories and Empirical Practice: A Linguistic Perspective*, edited by Andrea C. Schalley, 185–244. Amsterdam/Philadelphia: John Benjamins

Bickel, Balthasar. 2011. Grammatical relations typology. In Jae Jung Song (ed.), *The Oxford handbook of language typology*, 399–444. Oxford: Oxford University Press.

Delin, Judy, and John Oberlander. 1995. 'Syntactic Constraints on Discourse Structure: The Case of It-Clefts.' *Linguistics* 33 (3): 465–500

Haspelmath, Martin. 2012. How to compare major word-classes across the world's languages. Theories of Everything, *UCLA Working Papers in Linguistics*, Volume 17. 109-130

Lambrecht, Knud. 1994. *Information Structure and Sentence Form: Topic, Focus, and the Mental Representations of Discourse Referents*. Cambridge: Cambridge University Press.

Matić, Dejan, and Daniel Wedgwood. 2013. 'The Meanings of Focus: The Significance of an Interpretation-Based Category in Cross-Linguistic Analysis.' *Journal of Linguistics* 49 (1): 127–163

Muysken, Pieter. 1995. Focus in Quechua. In Katalin E. Kiss (ed.), *Discourse configurational languages*, 375–393. Oxford: Oxford University Press.

Ozerov, Pavel. 2015. The system of Information Packaging in Burmese. PhD Thesis, La Trobe University, Bundoora (Melbourne)

Rooth, Mats. 1992. 'A Theory of Focus Interpretation.' *Natural Language Semantics* 1 (1): 75–116

Sanchez, Liliana. 2010. *The morphology and syntax of topic and focus: Minimalist inquiries in the Quechua periphery*. Amsterdam: John Benjamins.

Simpson, Andrew. 2008. 'The Grammaticalization of Clausal Nominalizers in Burmese.' In *Rethinking Grammaticalization: New Perspectives*, edited by María José López-Couso and Elena Seoane, 265–288. Typological Studies in Linguistics 76. Amsterdam: John Benjamins

Vallduví, Enric. 1992. *The Informational Component*. New York: Garland Press.

Velleman, Dan B., David Beaver, Emilie Destruel, Dylan Bumford, Edgar Onea, and Liz Coppock. 2012. 'It-Clefts Are IT (Inquiry Terminating) Constructions.' In *Proceedings of SALT 22*, edited by Anca Chereches, 441–460. University of Chicago.

Two topic-related devices in Japanese: topic particle and word order

Natsuko Nakagawa

(Japan Society for the Promotion of Science / Chiba University)

1 Questions and methods

This paper investigates topic-related devices (a topic particle and word order) in spoken Japanese by examining a corpus (120 minutes) and argue that the usage of these devices are affected by different features, including those which have not traditionally been associated with topics. I argue that there is no single feature that determines topic; rather, topic is a cluster of many features.

2 Results

I analyzed full NPs and overt pronouns in the corpus that are coded by the topic particle *wa*, and those which appear sentence-initially or post-predicatively. I report the results in the following sections.

2.1 Topic particle

I compared the so-called topic particle *wa* with other particles and found that the usage of *wa* in Japanese is determined by the activation status (Chafe, 1994), grammatical function, and presupposition of the referent of *wa*-coded NPs. First, *wa* attaches to NPs referring to active or semi-

active entities; 57% of *wa*-coded NPs have the antecedent mentioned previously, and a close examination revealed that the rest of *wa*-coded NPs have the "bridging" (semi-active) antecedent. I propose that contrastive *wa* (Kuno, 1972) is a subtype of this *wa*. Second, *wa* prefers to attach to agents over patients; 44% of active As are coded by *wa*, whereas only 8% of active Ps are coded by *wa* (I do not count semi-active entities because of technical difficulties). Moreover, *wa*-coded NPs cannot be regarded as "news" by the hearer, which implies that *wa*-coded NPs are presupposed to be "accepted" by the hearer. "News" or focus can be naturally repeated by the hearer with surprise, whereas presupposed elements cannot. In (1-S), for example, *taroo* coded by *wa* is considered to be presupposed because it cannot be repeated by the hearer with surprise (shown by *hee* 'aha') as instanciated in (1-H), while *kyoozyu* 'professor' can be repeated by the hearer.

(1) S: taroo=**wa**   kyoozyu=da   yo
        Taro=TOP   professor=COP FP
        'Taro is a professor.'
    H: hee,   {??taroo=**wa**/kyoozyu}
           aha   {Taro=TOP/professor}
           'Aha, {??TARO (is a professor)! / (he's) A PROFESSOR!}'

2.2 Word order

I also examined full NPs and pronouns in two different positions: sentence-initial and post- predicate. Sentence-initial NPs tend to be definite, which frequently overlaps with but not perfectly the same as the characteristics of *wa*-coded NPs. Post-predicate NPs are strongly active in the sense that they are mentioned in the immediately preceding context (Nakagawa, Asao, & Nagaya, 2008). In addition, post-predicate NPs mainly appear in conversations and are rare in monologues; they are used in "emotive" utterance in interaction (Ono, 2007). I argue that this "emotive" usage of post-predicate construction emerges from the information- structural and the prosodic constraints of post-predicate NPs.

3 Discussion

I found that two topic related devices (so-called topic particle *wa* and word order) in spoken Japanese are sensitive to different features associated with information structure such as activation status, grammatical function, presupposition, and definiteness. Also, the usage of these devices are constrained by contexts which are not necessarily associated with information structure. I argue that the limitation of these devices are functionally motivated.

References

Chafe, W. L. (1994). *Discourse, consciousness, and time*. Chicago/London: Chicago University Press.

Kuno, S. (1972). Functional sentence perspective: a case study from Japanese and English. *Linguistic Inquiry*, *3*, 269-320.

Nakagawa, N., Asao, Y., & Nagaya, N. (2008). Information structure and intonation of right-dislocation sentences in Japanese. *Kyoto University Linguistic Research*, *27*, 1-22.

Ono, T. (2007). An emotively motivated post-predicate constituent order in a 'strict predicate final' language: emotion and grammar meet in Japanese everyday talk. In S. Suzuki (Ed.), *Emotive communication in Japanese.* Amsterdam: John Benjamins.

Topics, activation and cohesion in Jaminjung narratives

Candide Simard & Aïcha Belkadi

(SOAS, University of London)

Our talk investigates the prosodic encodings of topichood and the cognitive status of activation in narrative structures of Jaminjung, a non-Pama-Nyungan language spoken in Northern Australia.

Jaminjung is a non-configurational language: it displays 'free' word order, both dependent and head-marking ─ core argument NPs are marked by case and cross-referenced by bound pronouns on the predicate ─ and zero anaphora. Word order is pragmatically-driven and a typical ordering pattern is one where a Topic occurs at the left-edge of an intonation unit (IU) making a phrase of its own, followed by a Comment where the focussed constituent is placed first (Simard 2010). NPs are frequently omitted, only 1.5% of IUs contain both overt A and O arguments with a preference for A-first patterning (Schultze-Berndt 2016). IS categories can be identified by prosody, discourse particles and context. However, in accordance with the theme of this workshop, none of the latter marks categories exclusively.

Previous prosodic studies in Jaminjung focussed on individual tokens, containing representative instances of IS categories. Our investigation focusses on longer texts ─ personal anecdotes and mythological stories ─ looking at whether topic continuity receives any specific encoding. We classify overt referent NPs on a given-new continuum according to a non-binary taxonomy (Bauman & Grice 2006), coding for accessibility, activation and identifiability, and apply Givón's (1983, 1995) quantitative approach to measure the continuity of referents; i.e. whether overtly manifested or semantically implied as verb arguments. We also code for the syntactic role of the topics; and finally conduct a prosodic analysis.

Our results largely confirm cross-linguistic findings and predictions (Prince 1981, Givón 1983, Bauman & Grice 2006) regarding the link between lesser degree of activation and, on the one hand, greater prosodic salience, namely wider pitch excursions (pitch range), and on the other, syntactic position. Most relevantly, we find that topic continuity is not specifically encoded in narratives. Rather it is activation which is consistently indicated by the gradience of the pitch range measurements. This prosodic gradience suggests a parallel encoding strategy to that of topichood. We propose, therefore, that indicating the degree of activation of referents by prosodic means is crucial in maintaining the coherence and cohesion of narratives in Jaminjung. Referent NPs are introduced, and then continue to be more or less activated as the story unfolds - they may or may not become topics about which assertions are made.

In the task of maintaining cohesion and coherence in narratives, instead of looking for topic chains it is more useful simply to survey reference, and to identify NPs as topics for those contexts when there is no ambiguity, making topichood only one of the available factors affecting the encoding (morpho-syntactic and prosodic) of referents. As far as prosodic marking is concerned, activation of a referent seems to be a more central function in narrative structuring than topichood.

References

Baumann S, Grice M. 2006. The intonation of accessibility. Journal of Pragmatics. 2006;38(10):1636–1657. doi: 10.1016/j.pragma.2005.03.017

Givon T. 1983.Topic continuity in discourse: A quantitative cross-linguistic study. Philadelphia, PA: John Benjamins.

Givón, T. 1995. Functionalism and Grammar. Amsterdam: John Benjamins

Prince E. 1981.Toward a taxonomy of given-new information. In: Cole P, editor. Radical Pragmatics. NY: Academic Press; pp. 223–256

Schultze-Berndt. 2016. Information structure and constituent order in Jaminjung / Ngaliwurru. 8th European Australianist Meeting (SOAS, London; 24 Sept 2016).

Simard, Candide.2010. *The Prosodic Contours of Jaminjung, a Language of Northern Australia.* Manchester: University of Manchester PhD.

Topic and focus clitics developed from case suffixes in Komi

Gerson Klumpp
(University of Tartu)

Komi (Permic branch of Uralic) has enclitic markers of information structural categories which are grammaticalized from case suffixes: (i) the dative ending *-ly* may mark given direct object expressions (otherwise DOs are unmarked or in accusative case) as in (1), and (ii) the accusative form of the possessive suffixes 2nd, and 3rd person singular, *-tö* and *-sö*, may mark narrow focal expressions, often in contrastive contexts, independent from their syntactic function as e.g. in (2).

(1) | *Zavödï̈tisny* | | *vör* | *kerka* | *karny.* | | *Naja* | *sečöm* | *ńeščaśľïveja* |
     |---|---|---|---|---|---|---|---|---|
     | undertake.pst.3.pl | | forest | house | make.inf | | they | such | unlucky.adv |

kuććisny	**kerka-ly**	*karny:*	*kodi*	*ki-sö*	*rańitö,*	*kodi*
begin.pst.3.pl	house-dat	make.inf	who	hand-3sg:acc	hurts.3sg	who

    kok-sö.
    foot-3sg:acc

    'They undertook to build a forest cabin. They [began [to build the cabin]$_{given}$ in such an UNlucky way]$_{FOC}$: one gets his hand hurt, another one his foot.' (Zhilina 1998: 425)

(2) | "*Povźyšti,* | *no* | *eg* | **jona-sö**", | | *ošjyśa* | | *me.* |
     |---|---|---|---|---|---|---|---|
     | be.scared.pst1sg | but | not.pst.1sg | strong.adv-3sg:acc | | boast.prs1sg | | I |

    "'I was scared, but [not strongly]$_{FOC}$", I boast.' (Toropov_50.08)

The grammaticalization development starts with the association of certain syntactic functions as prone to occur in specific information structural positions, namely the dative marked indirect object within the topical, the possessive accusative marked direct object within the focal component of an utterance. The next step is the reanalysis of the (possessive) case markers in question as bearers of the information structural notions, their morphological independentization and application as free clitics: the dative ending then can be attached to given direct objects (secondary topics in the tradition of Nikolaeva 1999, 2001, or Dalrymple and Nikolaeva 2011), and the possessive accusative endings can be attached to any constituent bearing narrow and/or contrastive focus. These developments are attested for Komi to different extents. (i) Dative marking of direct objects occurs only in dialects (materials collected in the 19th and 20th centuries from Vym, Izhma, and Northern Permyak), in other Komi varieties this strategy corresponds to unexpectedly unmarked DOs (see Klumpp 2014). Further extension, beyond the categories of direct or indirect object, namely application of the dative ending as a marker of topicalized subjects or even other syntactic functions, has been debated, however attestations are too scarce. (ii) Contrastive focus markers grammaticalized from direct object markers, are fairly well attested across dialects and also for the Komi literary language.

The talk aims at giving an overview on the phenomenon as attested in different sources: (i) dialect texts, (ii) Komi literature, (iii) data on pitch accent and focus marking to be elicited in 2017. The main point of interest is an evaluation of the information structural marking power of these elements: are they pure markers of secondary topichood/narrow focus, or are they supportive in cooperation with other strategies as (de)accenting, word order variation and others? The theoretical background is provided by Büring 2016, Krifka 2007, and Zimmermann 2007.

References

Bubrikh, Dmitrij V. 1949. *Grammatika literaturnogo komi yazyka.* Leningrad: Izdatel'stvo leningradskogo gos. ordena Lenina univ. im. A. A. Zhdanova.

Büring, Daniel 2016. *Intonation and Meaning.* Oxford Surveys in Semantics and Pragmatics 3. Oxford: OUP.

Dalrymple, Mary & Nikolaeva, Irina 2011. *Objects and Information structure.* Cambridge: Cambridge University Press.

Klumpp, Gerson 2014. Identifiability, Givenness and Zero-marked Referential Objects in Komi. *Linguistics* 52:2, 415–444.

Krifka, Manfred 2007. Basic Notions of Information Structure. In: Féry, Caroline & Fanselow, Gisbert & Krifka, Manfred (eds.). *The Notions of Information Structure.* Interdisciplinary Studies on Information Structure (ISIS) 6. Potsdam: Universitätsverlag.

Nikolaeva, Irina 1999. Object agreement, grammatical relations, and information structure. *Studies in Language* 23, 331–376.

Nikolaeva, Irina 2001. Secondary Topic as a Relation in Information Structure. *Linguistics* 39, 1–49.

Toropov, Ivan. *No-o, bia bordajas!* http://www.finnougoria.ru/logos/proza/2228/23934

Zhilina, Tat'yana I. 1998. *Vymskij dialekt komi yazyka*. Syktyvkar: Prolog.

Zimmermann, Malte 2007. Contrastive Focus. In: Fanselow, Gisbert & Féry, Caroline & Krifka, Manfred (eds). *The notions of information structure.* Interdisciplinary Studies on Information Structure Vol. 6. Working Papers of the SFB 632. Potsdam: Universitätsverlag Potsdam.

Discourse use of possessive affix 3sg in Hill Mari[19]

Irina Khomchenkova

(Moscow State University)

In the Uralic languages, possessive affixes not only mark prototypical possessive relations (part-whole, kinship etc.), but also have discourse functions (1), see also [Kuznecova 2003; Nikolaeva 2003; Simonenko 2014].

(1) *paškud-em-žə*　　*tengečə*　　　　　　*ədər-əm*　　　　　*näl-ən*[20]
neighbour-poss.1sg-poss.3sg　　yesterday　　　　girl-acc　　　　　take-pfv
'My neighbour married yesterday!'

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[20] My examples come from the data collected in the village of Kuznecovo (Mari El Republic, Russia) in 2016. I have relied on elicitation and on the analysis of oral texts transcribed during the fieldwork.

My aim is to analyse the discourse functions of poss.3sg in Hill Mari. They have not been described in much detail so far (cf. only brief data in [Tuzharov 1987; 65-71, Savatkova 2002; 114-115]). I explain how all the functions of poss.3sg are connected.

The main non-possessive use of possessive affixes is usually linked to definiteness [Simonenko 2014] or identifiability [Nikolaeva 2003]. Following [Simonenko 2014], I have checked the compatibility of Hill Mari poss.3sg markers with different definite contexts (anaphora, deixis, uniqueness, selection from a set). The only possible use here involves marking a referent picked out from the set (2); ungrammatical examples on other definite contexts will be given in the talk.

(2) *mǝn'   šǝ-m   tǝrx-ǝ̂ dä   kǝ̂m   kanfet-šǝ-m   kačk-en   kolt-ǝ̂s-ǝ̂m*
1sg   neg.prt-1sg   bear-cn and   3   candy-poss.3sg-acc   eat-conv send-prt-1sg
'[There was many candies on the table.] I could not bear this and ate three candies'.

The use of poss.3sg also depends on information structure and specificity. This marker has a contrastive use – both in topic (3) and in focus (4), but only in specific NPs.

(3) *ti grušǝ̂-žǝ̂-m   mǝn' irok   kačk-am   a   ti   olma-žǝ̂-m   kod-em*
this pear-poss.3sg-acc   I morning eat-npst.1sg   and   this   apple-poss.3sg-acc   leave-npst.1sg
'[What will you do with these fruit?] As for this pear, I'll eat it for breakfast, and as for this apple, I'll leave it for later'.

(4) *čüč-ø okn'a-žǝ̂-m   a amasa-žǝ̂-m   agǝ̂l.*
close-imp.2sg   window-poss.3sg-acc   and   door-poss.3sg-acc neg
'Close the window and not the door'.

As can be seen in (5), poss.3sg does not mark non-specific NPs even in contrastive contexts. Thus, the impact of contrast decreases, while moving down on the referentiality scale.

(5) *ivan-lan   orolǝ̂(*-žǝ̂) kel-eš kǝ̂dǝ̂ kokšüdǝ kilo-m lüktäl-ø   kerd-eš*
Ivan-dat watchman-poss.3sg   need-npst.3sg   who   200 kilogram-acc lift-conv can-npst.3sg
a sekretarša(-ˀžǝ̂)[21] kǝ̂dǝ̂   veskid lu jǝlmǝ-m päl-ä a-k   kel- ø
and secretary-poss.3sg   who   foreign 10   language-acc   know-npst.3sg   neg.npst-3sg need-cng
'Ivan needs a watchman, who is able to lift 200 kg, but he doesn't need a secretary, who would know 10 foreign languages'.

I propose that the meanings of poss3sg are bound by the semantics of selection from a set. Similar to the choice of an object from a known set, contrastive topic and contrastive focus imply a choice from an activated set of variants [Kiss 1998; Repp 2010]. This strategy also spreads to the global discourse structure, marking a new referent which becomes prominent in a given text fragment. A similar function has been described for the Russian conjunction *a* 'but; and' in [Uryson 2011; 253-259] under the labels of "*a* of plot-twist" and "*a* of new topic". In Hill Mari, the use of poss.3sg quite often combines with the use of *a*, borrowed from Russian. However, this semantic duplication is not obligatory.

The function of marking a new topic is illustrated in (6). The left context of (6) was about another village, so the shift to a new one is marked with poss.3sg.

(6) *a   küšǝl   vuj   pǝtäri-šǝ sola-žǝ̂ pǝzǝknǝ̂r   man-alt-ǝ̂n*
and   upper head   first-ord village-poss.3sg P.   say-detr-pfv.3sg
'And the first upper village was called Piziknury'.

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[21] Some (but not all!) speakers allow the use of POSS.3SG in a non-specific NP in the second part of a contrastive sentence.

To sum up, the semantics of selection brings together the use of the same marker in Hill Mari on the levels of referential properties, topic-focus structure and global discourse structure, sometimes involving their interaction.

References

Kiss K. É. (1998) Identificational focus versus information focus // Language, V. 74, N. 2, pp. 245-273.

Kuznecova A.I. (2003) Kumulyatsiya grammaticheskikh znachenij v agglyutinativnykh pokazatelyakh: dejkticheskie funktsii posessiva v ural'skikh yazykakh [The cumulation of grammatical meanings in agglutinative markers: deictic functions of possessive in Uralic languages] // International symposium on deictic systems and quantification in languages spoken in Europe and North and Central Asia. Col. of papers. Izhevsk. P. 249–259.

Nikolaeva I. (2003) Possessive affixes as markers of information structuring: Evidence from Uralic // International symposium on deictic systems and quantification in languages spoken in Europe and North and Central Asia. Col. of papers. Izhevsk. P. 130-145.

Repp S. (2010) Defining 'contrast' as an information-structural notion in grammar // Lingua. – T. 120. №. 6. P. 1333-1345.

Savatkova A.A. (2002) Gornoe narechie marijskogo yazyka. [Hill Mari language] // Bibliotheca Ceremissica. T.V. – Savariae.

Simonenko A. (2014) Microvariation in Finno-Ugric possessive markers // In Proceedings of the 43rd annual meeting of the North East Linguistic Society, ed. Hsin-Lun Huang, Ethan Poole and Amanda Rysling, vol. 2, P. 127–140.

Tuzharov G.M. (1987) Grammaticheskie kategorii imeni sushhestvitel'nogo v marijskom yazyke [Grammatical categories of noun in Mari language] // Joshkar-Ola.

Uryson E.V. (2011) Opyt opisanija semantiki sojuzov [The experience of description the semantics of conjunctions] // Moscow

With or without *=mi*: focus, expectation and epistemic primacy in Tena Kichwa

Dejan Matić & Karolina Grzech

(University of Graz & SOAS, University of London)

Quechuan languages exhibit a number of free enclitics, widely analysed as evidential markers (e.g. Weber 1986; Floyd 1997; Faller 2002) and markers of focus (e.g. Muysken 1995; Sánchez 2010). To date, particular attention has been granted to the 'direct evidential' enclitic *=mi*. This talk focuses on the use of *=mi* in Tena Kichwa (henceforth TK), an under-described Quechuan variety spoken in the Ecuadorian Amazon.

Rather than being a direct evidential, the TK *=mi* is better analysed as marking 'epistemic primacy': 'the relative right to know or claim' (cf. Stivers et al. 2011). The marker's low frequency (ca. 7% of turns) also suggests that while it is associated with focal status of referents, it is not *per se* a focus marker. The TK data also show that accounting for the distribution of *=mi* requires taking expectation into account.

I present a corpus-based analysis of the TK *=mi*, accounting for the three aspects of its meaning: epistemic primacy semantics, association with focus and association with expectation. The analysis is based on 13 hours of spoken TK data, ranging from stimuli-based elicitation to natural conversations.

In the literature, expectation is considered relevant to the marking of (contrastive) foci (Zimmermann 2008; Matić 2015). Contrastivity is related to particular focal information being 'unexpected for the hearer from the speaker's perspective' (Zimmermann 2008:348). The more unexpected the content is judged to be for the hearer, the more likely the speaker is to use dedicated marking.

This observation applies to the TK *=mi*, but does not suffice to explain its distribution. Although the marker surfaces most often in contrastive constructions, it is not limited to discourse contexts with explicit alternatives. Rather, the occurrence of *=mi* is triggered by the speaker's assumptions about what the hearer considers unlikely. This property becomes evident when *=mi* is contrasted with the verum focus marker *=tá*:

el_28112014_05

A:	kam-ba	warmi	may-bi=ra	?
	2SG-GEN	woman	where-LOC=ta	
	'Where [is] your wife?'			
B:	wasi-y=**mi**	/	*wasi-y=**rá**	
	house-LOC=**mi**	/	house-LOC=**tá**	
	'[She is] at home.'			
A:	wasi-y=cha ?			
	where-LOC=DUB			
	'At home?'			

B:	wasi-y=**rá**	!
	house-LOC=**tá**	
	'Yes, [she IS] at home!'	

In 0, *=mi* occurs when the speakers judges the content of their utterance as unexpected to the hearer. Conversely, the contrast between B's first and second utterance shows that *=tá* occurs when the assertion is judged as expected.

The analysis of *=mi* presented in this talk follows Matić's (2015) model incorporating expectation into the relevance-theoretical model of communication. We show that the marker's function of indicating unexpected content is compatible with its association with focus, and with epistemic primacy semantics; Since the speaker uses *=mi* to mark an utterance he does not think the hearer expects, it is natural for the speaker to have epistemic primacy in such cases, and to mark the content as focal: new to the hearer.

This talk invites the question of how expectation should be incorporated into cross-linguistically applicable models of IS. It also shows that comprehensive descriptions of IS-marking across languages might require exploring seemingly unrelated systems, e.g. those dedicated to encoding epistemic meaning.

References

Faller, Martina T. 2002. Semantics and Pragmatics of Evidentials in Cuzco Quechua. Unpublished PhD Thesis. Stanford: Stanford University.

Floyd, Rick. 1997. *La estructura categorial de los evidenciales en el quechua wanka*. (Serie Lingüística Peruana). Lima: SIL International.

Matić, Dejan. 2015. Discourse expectations and common ground. Paper presented at the Workshop on Information Structure in Endangered Languages, SOAS, University of London.

Muysken, Pieter. 1995. Focus in Quechua. In Katalin É. Kiss (ed.), *Discourse Configurational Languages*, 375–393. New York: Oxford University Press.

Sánchez, Liliana. 2010. *The Morphology and Syntax of Topic and Focus: Minimalist Inquiries in the Quechua Periphery*. Amsterdam: John Benjamins.

Stivers, Tanya, Lorenza Mondada & Jakob Steensig. 2011. Knowledge, morality and affiliation in social interaction. In Tanya Stivers, Lorenza Mondada & Jakob Steensig (eds.), *The Morality of Knowledge in Conversation*, 3–24. Cambridge: Cambridge University Press..

Weber, David. 1986. Information perspective, profile, and patterns in Quechua. In Wallace Chafe & Johanna Nichols (eds.), *Evidentiality: the linguistic coding of epistemology*, 137–55. Norwood, NJ: Ablex .

Zimmermann, Malte. 2008. Contrastive focus and emphasis. *Acta Linguistica Hungarica* 55(3–4). 347–360.

Kazakh multi-functional particle *ğoj* and the notion of confirmativity

Nadežda Christopher

(SOAS, University of London)

The Kazakh (Turkic) particle *ğoj* has been analysed as referring to shared information between the speaker and hearer (Abish 2014; Muhamedowa 2016), as well as an 'explicative' particle, the addition of which indicates the speaker's emotive attitude towards the contents of the utterance (Straughn 2011). The examples in (1b) and (2b) show these uses of *ğoj* respectively.

(1) a) Mother: Why weren't you home yesterday afternoon?
b) Son: Keše   sabaq   bol-dï   ğoj!
           Yesterday   lesson be-past.3sg ğoj
           'There was a class yesterday, as you well know! / don't you remember?'

(2) a) Speaker1: Bolat wrote this book.
b) Speaker2: Bul   kitap-tï   Marat qoj žaz-ğan!
    This book-acc Marat ğoj write-perf
    'It was Marat who wrote this book!'

These examples seem to prove Straughn's point in regards to the explicative and emotive nature of *ğoj*, as this undertone is present in both (1b) and (2b), while no reference to previously shared information (as per Abish and Muhamedowa's proposal) is made in the utterance in (2b). However, the notions of 'explicativity' or 'emotivity' do not help explain the behaviour of this particle in other contexts, such as following the existential *bar* to introduce a topic, or in questions.

Typologically, *ğoj* can be compared to the Russian *že* and *ved'*, for which McCoy (2003) identifies kontrastivity as the core meaning. It can also be compared to the German *doch*, which Karagjosova (2004) also identifies with contrastivity. I propose not to use the notion of contrast to identify the underlying meaning of *ğoj*, as it does not explain all the meanings resulting from the interaction of *ğoj* with different contexts. Instead, I turn to Friedman's (1981) notion of confirmativity and posit that it

leads to better understanding of the true nature of *ǧoj*, which is not limited to some of the IS-related functions it performs.

References

Abish, A., 2014. *Modality in Kazakh as spoken in China*. Ph.D. Uppsala University.

Friedman, V. A., 1981. Admirativity and Confirmativity. *Zeitschrift für Balkanologie* 17.1:12-28.

Karagjosova, E., 2004. German *doch* as a marker of given information. In: *Sprache und Datenverarbeitung* (*International Journal for Language Data Processing*), Vol 28.1/2004. Duisburg: UVRR Universitätsverlag Rhein-Ruhr.

McCoy, S., 2003. Unifying the Meaning of Multifunctional Particles: The Case of Russian ŽE. In: *University of Pennsylvania Working Papers in Linguistics*, Volume 9.1 (2003)

Muhamedowa, R., 2016. *Kazakh*: *A Comprehensive Grammar*. Oxon: Routledge.

Straughn, C., 2011. *Evidentiality in Uzbek and Kazakh*. Ph.D. The University of Chicago.

Constructing focus in Wan: The interaction of focus marking with aspect and ergativity

Tatiana Nikitina

(CNRS – LLACAN)

Focus is often claimed to play a central role in the grammar of African languages, yet little is known about the ways focusing strategies function in actual discourse (Heine & Reh 1983; Bearth 1999, inter alia). This study explores the use of focus-signaling devices in Wan (Mande), a language where the marking of focus interacts closely with aspect and pronominality of the verb's arguments.

Focus-marking particles appear in Wan in two different positions: after the verb or after the subject (Nikitina forthc.). The two types of marker are subject to different syntactic restrictions, and they are used in different kinds of context not associated with focus. The post-subject marker also functions as a bidirectional case marker (Heath 2007), separating the subject from the object in cases where they would otherwise be linearly adjacent and the object exceeds the subject in pronominality. The examples below illustrate, for the same post-subject marker, the contrastive focus use (1a, in combination with the post-verbal focus marker), and focus-neutral use with a combination of a noun phrase subject and a pronominal object (1b).

(1) a.   tólì   à   **làà**   tḗ   mɛ́
           liver   illness subj.foc+3sg   kill:pastfoc
           'It was heart disease that killed him.'
     b.   ɓé   mī   **lāā**   lā   glà   ēē?
           then   man   erg   2sg   take   q+excl
['You came on your own initiative, without authorization.'] 'And someone should pick you up [and carry]?'

The post-verbal marker introduces two aspectual constructions that are rarely juxtaposed in the typological literature yet are related in Wan: the resultative and the habitual. The examples below illustrate, for the same post-verbal marker, the predicate focus use (2a), and the habitual use without

any focus (2b). In 2b, the subject is also introduced by the post-subject marker in the bidirectional case marking function, since the object is pronominal and the subject is an NP:

(2)   a.   àa̠   tɛ́   **má̠**!
              3pl+3sg   kill   foc
              ['What do they do to you in that case?'] -- 'They kill you!'
       b.   mī   mū   lāá   ē   flɛ́   **má̠**
              person pl   erg   refl blow hab
            'People breathe.' (literally, 'blow [into] themselves')

On a synchronic account, the multiple functions of the same particles raise a number of questions. On the one hand, contexts traditionally described as involving focus tend to feature one or both types of focus-related markers (as in 1a and 2a). On the other hand, neither the post-subject nor the post-verbal marker is associated exclusively with focus (cf. Matić & Wedgwood 2012). I discuss, based on data from a corpus of spontaneous speech, possible diachronic relations between focus-related and focus-neutral uses of the markers, and argue that the evidence of Wan does not warrant positing focus as a category in its own right. Focus interpretations are introduced by devices that are not specialized for the expression of focus, but can be used in ways that allow focus readings to emerge in context (cf. 1a and 2b, which are structurally ambiguous between a focus and a non-focus interpretation). Restrictions on the focus-neutral uses of such devices are shown to explain, in diachronic terms, otherwise puzzling restrictions on focus marking (such as the incompatibility of the post-verbal marker with aspectual markers or the incompatibility of the post-subject marker with TAM auxiliaries).

References

Bearth, Thomas. 1999. The contribution of African linguistics towards a general theory of focus. Update and critical review. *Journal of African Languages and Linguistics* 20(2): 121-156.

Heath, Jeffrey. 2007. Bidirectional case-marking and linear adjacency. *Natural Language & Linguistic Theory* 25: 83-101.

Heine, Bernd & Mechthild Reh. 1983. Diachronic observations on completive focus marking in some African languages. *Sprache und Geschichte in Afrika* 5: 7-44.

Matić, Dejan & Daniel Wedgwood. 2012. The meaning of focus: The significance of an interpretation-based category in cross-linguistic analysis. *Journal of Linguistics* 49: 127-163.

Nikitina, Tatiana. Forthc. Focus marking and differential argument marking: The emergent bidirectional case marker in Wan. Under review.

Alexey Kozlov
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Wh-Questions at the Syntax-Semantics Interface – German-Swedish Contrasts

Valeria Molnar

(Lund University)

Aim: This talk focuses on information-eliciting *Wh*-questions at the Syntax-Discourse Interface comparing two closely related Germanic languages, German and Swedish. These languages show considerable differences in the syntactic realization of *Wh*-questions and in their mapping to discourse strategies. Especially the discourse semantic properties of clefts in *Wh*-questions deserve attention; the restrictions on their use and other possible strategies for rendering equivalent contextual meanings (e.g. by the use of modal particles) are of great relevance for the contrastive and comparative analysis of *Wh*-questions.

However, the syntactic and discourse pragmatic properties of clefts in information-eliciting *Wh*-questions have been only discussed by a few researchers from the contrastive and /or comparative perspective (see Engdahl 2006, Myers 2007, Boucher 2010, Brandtler 2012). It was observed that the discourse-semantic effects of clefts in *Wh*-questions differ significantly from the effects of the non-clefted versions within the same language, and special attention was paid to the different question types in French (allowing non-clefted *Wh*-questions with or without fronting of the *Wh*-element). Interestingly, the distribution of clefts and non-clefts is completely different in other languages (e.g. English, German).

In a contrastive analysis concentrating on *Wh*-questions in German and Swedish it is also relevant to take into account the differences between the syntactic, prosodic and pragmatic properties of clefts in declarative sentences in these two languages (Huber 2002). The discourse-semantic potential of declarative clefts in German is more restricted than in Swedish – a fact which can provide a partial explanation for dispreferring clefts in German *Wh*-questions.

Analysis: The different effects of the clefted and non-clefted *Wh*-questions in German and Swedish will be investigated in a discourse-oriented syntactic framework with the aim to clarify and compare the language specific patterns in this field.

We argue that the main difference between German and Swedish w.r.t. the use of clefts in *Wh*-questions can be traced back to the rules that these languages must observe for the specific additional marking of certain expectations on the answer. The requirements on the marking of an expected empty set in the answer and /or the need for a referential specification of the *Wh*-element seem to be language-specific. Swedish requires special syntactic marking for the expectation of referential specification by clefts, whereas additional marking of an expected expected empty set is essential in German and can achieved by the use of modal particles (e.g. *schon*).

The theoretical analysis of the language-specific requirements and constraints is based on relevant morphological and syntactic properties of the interrogative clause discussed in detail in Brandtler's (2012) analysis of Swedish *Wh*-questions. The distinction of different types of *Wh*-questions (*argument questions*, *framing questions* and *propositional questions*) seems to be decisive for the appropriateness and discourse-semantic potential of clefted *Wh*-questions. Our analysis is also supported by empirical evidence provided by the comparison of Swedish *Wh*-questions in Sjövall-Wahlöö's Martin Beck detective series and their translations into German by Eckehard Schulz.

Selected references

Brandtler, Johan. 2012. *The Evaluability Hypothesis. The syntax, semantics, and pragmatics of polarity item licensing in Swedish*. Amsterdam /Philadelphia: John Benjamins Publishing Company [Linguistics Today 183].

Boucher, Paul. 2010. "*Wh*-questions in French and English: Mapping syntax to information structure". In: C. Breul, C & E. Göbbel (eds.), *Comparative and Contrastive Studies on Information Structure*, 101-138.

Engdahl, Elisabet. 2006. "Information packaging in questions". In: O. Bonami & P. Cabredo Hofherr (eds.), *Empirical Issues in Syntax and Semantics*, 93–111.

Huber, Stefan. 2002. *Es-Clefts und det-clefts.* PhD Dissertation, Lunds universitet. (= Lunder germanistische Forschungen 64).

Krifka , Manfred. 2001. "For a structured account of questions and answers". In: C. Féry, & W. Steinefeld (eds.), *Audiatur vox sapientiae. A Festschrift for Achim von Stechow.* Akademie-Verlag, Berlin, 287–319.

The non-possessive use of possessive suffixes in Dolgan – Implications on givenness, accessibility and identifiability

Chris Lasse Däbritz

(Universität Hamburg)

Dolgan is a highly endangered language that is spoken by approximately 1,000 people (VPN 2010) on the Taimyr Peninsula in Northern Siberia, Russia. It belongs to the northeastern branch of the Turkic languages, its closest relative being Yakut (Sakha) (Boeschoten 1998: 11f.). It has a quite extensive nominal morphology, including two numbers, eight cases and so-called possessive suffixes (Ubryatova 1985: 114ff.). The latter seem to have a wide range of functions. Prototypically, they denote the relationship of attributive possession (McGregor 2009: 2), as illustrated in (1).

(1) *teːte-gi-n   kitta   maːma-gi-n   köhö-r-ön   egel-i͡ek-pit*
     dad-px2sg-acc   with   mum-px2sg-accgo.away-caus-cvb   get-fut-1pl
     'We will get your mum and dad here.'
     (MiAI_1964_OldPeasantOldWoman_flk.293)

Nonetheless, not only the prototypical use of possessive suffixes can be observed, as (2) and (3) show. Example (2) is a story-initial and introductory sentence, and example (3) is in the context that the fox and the fish decided to make a race in order to see who is faster:

(2) *bilir   kaːhi-ŋ,   kuhu-ŋ,   čiːčaːgi-ŋ,   leŋkeji-ŋ   [...]*
     long.ago   goose-px.2sg   duck-px.2sg   small.bird-px.2sg   snow.owl-px.2sg
     'Long ago the geese, the ducks, the small birds, the snow owls […lived in this country].'
     (ErSV_1964_SnowOwl_flk.001)

(3) *hahili-ŋkitil   ustun   bar-bit, balig-i-ŋ   uː   ustun.*
     fox-px.2sg   shore   along   go-pst3.3sg   fish-px.2sg   water   through
     'The fox went along the shore, the fish through the water.'
     (FeA_1931_OldWomanFoxFur_flk.013)

Obviously the possessive suffixes in (2) do not convey the information that the hearer's ("your") goose etc. lived in the named country, but the groups of those birds – as a denotion of kind – which are

mentally accessible for the hearer. Neither do the possessive suffixes in (3) express something about the hearer's fox and fish, but about some aforementioned, i.e. given, fox and fish.

Hence, instead of denoting a possessive relation, the possessive suffixes in (2) and (3) seem to denote some relation between the referents in the text and the hearer's mind, i.e. between the text-internal world and the text-external world. Assuming that combining the text-internal and text-external world is exactly what information structural expressions do (Lambrecht 1994: 37), the possessive suffixes (at least the possessive suffix of the 2nd person singular, cf. Siegl 2015) in Dolgan are used for the information structural organization of the discourse. My talk aims to clarify the exact functions of the range of possessive suffixes (including not only the 2Sg) in Dolgan, also in the light of the research which has been carried out on other languages of northwestern Siberia (e.g. Nikolaeva 2003 and Pakendorf 2007).

The data will be taken from the Dolgan corpus of the research project "INEL" (Grammatical Descriptions, Corpora and Language Technology for Indigenous Northern Eurasian Languages), which is located at the Universität Hamburg and carried out at the Academy of Sciences in Hamburg and consists by now of 4,975 sentences with 28,454 tokens.

References

Boeschoten, Henrik. 1998. The Speakers of Turkic Languages. In: Johanson, Lars; Csató, Éva. (eds.). *The Turkic Languages.* London; New York: Routledge, 1-15.

Lambrecht, Knud. 1994. *Information Structure and Sentence Form: Topic, Focus, and the mental representations of discourse referents.* Cambridge: Cambridge University Press.

McGregor, William. 2009. Introduction. In: McGregor, William (ed.). *The expression of possession.* Berlin: De Gruyter, 1-12.

Nikolaeva, Irina. 2003. Possessive affixes as markers of information structuring: Evidence from Uralic. In: Comrie, Bernard; Suihkonen, Pirkko (eds.). *International Symposium on Deictic Systems and Quantification.* Iževsk; Leipzig: Udmurt State University; Max Planck Institute of Evolutionary Anthropology, 130-145.

Pakendorf, Brigitte. 2007. The 'non-possessive' use of possessive suffixes in Sakha (Yakut). *Turkic Languages* 11, 226-234.

Siegl, Florian. 2015. The non-possessive use of px.2p in Nganasan and Dolgan – a reappraisal. *Finnisch-Ugrische Mitteilungen* 39, 67-100.

Ubryatova, E.I. 1985. *Yazyk noril'skix dolgan.* Novosibirsk: Nauka.

VPN 2010 = *Vserossijskij perepis' naselenija. Tom 4. Nacional'nyj sostav i vladenie jazykami.* Online at:
http://www.gks.ru/free_doc/new_site/perepis2010/croc/Documents/Vol4/pub-04-05.pdf, 30.05.2017.

Uta Reinöhl
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Pronominal predicates in Movima: clefts or equational clauses?

Katharina Haude
(CNRS – Structure et Dynamique des Langues)

Movima (isolate, Bolivia; Haude 2006), is a language with predominantly predicate-initial (core) clause structure; see (1) for an intransitive and (2) for a transitive verbal clause.

(1)   **jo'yaj**--*us*
     arrive--3m.ab
     'He arrived.'

(2)   **jiwa-ɫe-na**=*'ne*--*kas*
     come-co-dr=3f--obv:3n.ab
     'She brought it.'

The clause-final bound pronoun can be replaced by a clause-initial free form; see (1)' and (2)'. Discourse counts (Haude and Beuse 2012) show that in terms of frequency this construction is pragmatically marked.

(1)'   *usko*   **jo'yaj**
     pro.m.ab   arrive
     'He arrived.'

(2)'   *asko*   **jiwa-ɫe-na='ne**
     pro.n.ab   come-co-dr=3f
     'She brought it/that.'

Syntactic tests (embedding, negation, valency decrease) indicate that this marked construction has a biclausal structure and can be characterized as a cleft: the free pronoun is the predicate and the verb constitutes a headless relative clause. Functionally, however, the construction is not a cleft: rather than marking argument focus, the pronoun topicalizes a participant introduced immediately before, while the verb provides an assertion; prosody confirms this interpretation.

A more fruitful approach may be to analyze the marked construction as an equational clause. Basically, the only difference between Movima equational and verbal clauses is that the predicate is either a morphological noun or a verb: there is no copula, and possessors are encoded like agents of direct transitive clauses; compare (3) with (1) and (4) with (2).

(3)   **tolkosya**--*'ne*
     girl--3f
     'She (is/was a) girl.'

(4)   **pekato**=*sne*   *os*   *jeya=sne*
     sin=3f.ab   art.n.pststate_of=3f.ab
     'Her sin (was) that she was like that (lit.: "Her sin [was] her state of being").'

The argument of the equational clause can also be expressed by a clause-initial free pronoun, as in (3)' and (4)'. Here as well, syntactic tests (embedding, valency decrease) show that the pronoun is the predicate and the noun shares properties with relative clauses.

(3)'   *i'ne*   **tolkosya**

      pro.f   girl
      'She (is/was) a girl.'

(4)'   *asko*   **pekato=sne**
      pro.n.ab   sin=3f.ab
      'That /It (is/was) her sin.'

However, in contrast to other predicate types, a possessed predicate nominal (4) cannot have its argument expressed by a bound pronoun (**pekato=sne**--**kas**); only the free pronoun allows a pronominal encoding of the argument, (4)'. From this point of view, and supported by the syntactic noun-verb equivalence in Movima, the marked construction can be considered a simple equational clause everywhere (with the apparent relative clause being a nominal). Its information structure is in line with this interpretation, and no biclausal pattern needs to be postulated.

Thus, given the absence of a copula, of overt relativization, and of a syntactic verb-noun distinction, only the pragmatic structure of this construction and its privileged status with possessed predicate nominals make it possible to identify an apparent cleft as an equational clause. This study sheds further light on the weak distinction between clefts and equations (Shibatani 2009) and on the potentially close diachronic relationship between them.

Symbols and abbreviations

-- "external cliticization"; = "internal cliticization"; 3=third person; ab=absent; co=co-participant; dr=direct; f=feminine; m=masculine; n=neuter; obv=obviative; pro=free pronoun; pst=past

References

Haude, Katharina. 2006. A Grammar of Movima. Doctoral dissertation, Radboud University Nijmegen.

Haude, Katharina and Silke A. Beuse (eds.). 2012. *Annotated Multimedia Documentation of Movima.* MPI for Psycholinguistics, Nijmegen: TLA/DoBeS archive. Annotated corpus of 30hs of spontaneous Movima discourse.

Shibatani, Masayoshi. 2009. Elements of complex structures, where recursion isn't: the case of relativization, in Shibatani, Masayoshi and Talmy Givón (eds.). *Syntactic Complexity: Diachrony, Acquisition, Neuro-cognition, Evolution*, 163-198. Amsterdam/Philadelphia: Benjamins.

Specificational predicates and clefting

Anja Latrouite & Robert D. Van Valin, Jr.
(Heinrich Heine University Düsseldorf)

Cleft and pseudo-cleft constructions are typically analyzed as expressing (contrastive) narrow focus. It has been claimed (e.g. Den Dikken 2006, Declerck 1988, Frascarelli & Ramaglia 2013) that they are specificational sentences, in contrast to predicational sentences. We examine constructions marking narrow focus in Tagalog (Austronesian) and Lakhota (Siouan) analyzed as clefts in the literature, arguing they involve specificational constructions but differ dramatically in their morphosyntactic properties. The formal contrast between predicational and specificational sentences is shown in (1) (Schachter & Otanes 1972) and (2) (Ullrich 2016).

(1) a. Artista ang   babae.   Tagalog: Predicational
         actress NOM woman
         'The woman is an actress.'
     b. Ang artista ang babae.   Specificational
         'The woman is the actress.'

(2) a. Hé hokšíla.   Lakhota: Predicational
         that boy
         'That one is a boy.'
     b. Hokšíla kiŋ lé   é.   Specificational
         boy   the this be.the.one
         'This is the boy.'

Both use referring expressions as predicates, albeit differently. The Tagalog construction is in (3b).

(3) a. T<um>a~tawa   siya.
         <AV.RLS>IPFV.laugh 3sgNOM
         'He was laughing.'
     b. Siya ang   t<um>a~tawa.
              NOM
         'It was he who was laughing,' 'The one who was laughing was he.'

Siya '3sgNOM' appears in an argument position in (1a) but in the predicate slot in (1b), with the nominalized verb (phrase) as its argument. The corresponding Lakhota construction in (4b, b′) involves the internally-headed relative marker *čha*.

(4) a. Igmú waŋ/kiŋ waŋ<Ø-bl>áke.
         cat   a/the   see<3sg-1sg>
         'I saw a/the cat.'
     b. Igmú čha waŋ<Ø-bl>áke.
         'It was a cat that I saw.'
     b′. Igmú-pi čha waŋ<wíčha-bl>ake.
         cat-PL   see<3pl-1sg>
         'It was cats that I saw.'

Lakhota nouns functioning as arguments do not take plural marking, but do when functioning as predicates, as in (4b′), revealing *igmúpi* to be the predicate of an internally-headed relative clause. (4b, b′) are internally-headed clefts, in which the 'clefted' element is the predicate in a subordinate clause, in contrast to Tagalog (and English), in which it is in the main clause predicate. With a definite 'clefted' element the specificational verb *é* appears.

(5) a. Igmú kiŋ é čha waŋ<Ø-bl>áke.
         'It was the cat that I saw.'
     b. Igmú kiŋ é-pi čha waŋ<wíčha-bl>ake.
         'It was the cats that I saw.'

Plain nominal predicates, e.g. *igmú* 'it is a cat', get a default predicative interpretation but can be coerced into having a specificational reading by the syntax, as in (4b,b´).

Tagalog and Lakhota show substantial differences in their 'cleft' constructions: in Tagalog the 'clefted' phrase fills the normal main clause predicate slot followed by a nominalized VP as its argument, whereas in Lakhota it is in a subordinate clause and is an argument of the main clause predicate. The contrast between predication and specification depends on the definiteness marking on the predicate nominal in Tagalog, but is reflected primarily lexically and can be coerced syntactically in Lakhota. In both languages specificational constructions can be used to code narrow focus, but they differ in their distribution, suggesting different cut-off points for the use of specificational constructions in each.

References

Declerck, R. 1988. *Studies on copular sentences, clefts and pseudo-clefts*. Dordrecht, Foris.

Dikken, Marcel den. 2006. Specificational copular sentences and pseudoclefts. M. Everaert & H. van Riemsdijk, eds., *The Blackwell companion to syntax*, vol. 4, 292-409. Oxford: Blackwell.

Frascarelli, M. & Ramaglia, F. 2013. (Pseudo)cleft constructions at the syntax-prosody-discourse interface. K. Hartmann & T. Veenstra, eds. *Cleft structures*, 97-140. Amsterdam: John Benjamins.

Schachter, P. & F. Otanes. 1972. *Tagalog reference grammar*. Berkeley: UC Press.

Ullrich, J. 2016. *Lakota grammar handbook*. Bloomington, IN: Lakota Language Consortium.

WORKSHOP 5

Cognitive approaches to coherence relations: New methods and findings

Cristina Grisot & Sandrine Zufferey

(University of Bern)

Since Halliday and Hassan's (1976) seminal work on cohesion in English, coherence relations have been extensively studied from various perspectives, such as the automatic recognition of coherence relations expressed through connectives (Mann and Thompson 1987; Prasad et al. 2004; Lapata & Lascarides 2004; Meyer & Popescu-Belis 2012; Meyer 2014), and the formulation of cognitively plausible taxonomies of coherence relations (Hovy 1990; Sanders et al. 1992, 1993; Knott & Dale 1994; Knott & Sanders 1998; Sanders 2005; Prasad et al. 2008; Roze et al. 2010). An extensive body of literature in linguistics and pragmatics has also targeted the meaning of connectives (Blakemore 1987, 2000; Blass 1990; Carston 1993; Moeschler 1989, 2002; Rouchota 1998), the human annotation of their senses (Miltsakaki, Robaldo, Lee & Joshi, 2008; Scholman, Evers-Vermeul & Sanders, 2016), the role the play for the processing of coherence relations (Traxler et al. 1997; Sanders and Noordman 2000; Canestrelli et al. 2013; Zufferey 2014; Grisot & Blochowiak 2015; Zufferey and Gygax 2015) and their acquisition by normally-developing children (Evers-Vermeul & Sanders, 2009; Cain & Nash, 2011; Zufferey, Mak & Sanders, 2015). These studies have all demonstrated that connectives encode procedural meaning that guide the hearer in the construction of a coherent mental model of discourse.

Despite this rich state of the art, many questions remain regarding the classification of coherence relations and their encoding in connectives, as well as their role for discourse processing and comprehension. The proposed workshop will bring together an international group of experts working on these open issues. The methodological issues targeted in the workshop are the following:

- How can the reliability to discourse annotation be improved by the use of new methodologies such as crowdsourcing?
- What is the role of context for the annotation of discourse relations?
- What are the best-suited empirical methods to assess the online processing of discourse relations and connectives?
- How can discourse annotation schemes designed for written data be adapted to be applicable to spoken discourse?

The workshop also aims to extend the state of the art on discourse relations and connectives by addressing the following theoretical issues:

- What are the connexions between connectives and other cohesion markers for the processing and understanding of discourse relations?
- Are discourse annotation schemes applicable cross-linguistically?
- How do cross-linguistic differences in the marking of coherence relations with connectives affect non-native speakers' ability to understand and process them?

References

Blakemore, D. (1987). *Semantic constraints on relevance*. Oxford: Blackwell.

Blakemore, D. (2000). Indicators and procedures: nevertheless and but. *Journal of Linguistics*, *36*(3), 463–486.

Blass, R. (1990). Relevance relations in discourse: A study with special reference to Sissala (Vol. 55). Cambridge: Cambridge University Press.

Cain, K., & Nash, H. M. (2011). The influence of connectives on young readers' processing and comprehension of text. *Journal of Educational Psychology*, *103*(2), 429.

Canestrelli, A. R., Mak, W. M., & Sanders, T. J. (2013). Causal connectives in discourse processing: How differences in subjectivity are reflected in eye movements. *Language and Cognitive Processes*, *28*(9), 1394–1413.

Carston, R. (1993). Conjunction, explanation and relevance. *Lingua*, *90*(1), 27–48.

Evers-Vermeul, J., & Sanders, T. (2009). The emergence of Dutch connectives. How cumulative cognitive complexity explains the order of acquisition. *Journal of Child Language*, 36, 829-854.

Grisot, C., & Blochowiak, J. (2015). Online processing of temporal discourses: verbal tenses and the pragmatic connective "ensuite." *Cahiers de Linguistique Française*, (32), 85–102.

Halliday, M. A. K., & Hasan, R. (1976). *Cohesion in English*. London: Longman.

Hovy, E. H. (1990). Parsimonious and profligate approaches to the question of discourse structure relations. In *Proceedings of the Fifth International Workshop on Natural Language Generation* (pp. 128–136).

Knott, A., & Dale, R. (1994). Using linguistic phenomena to motivate a set of coherence relations. *Discourse Processes*, *18*(1), 35–62.

Knott, A., & Sanders, T. (1998). The classification of coherence relations and their linguistic markers: An exploration of two languages. *Journal of Pragmatics*, *30*(2), 135–175.

Lapata, M., & Lascarides, A. (2004). Inferring Sentence-internal Temporal Relations. In *HLT-NAACL* (pp. 153–160).

Mann, W. C., & Thompson, S. A. (1986). Relational propositions in discourse. *Discourse Processes*, *9*(1), 57–90.

Meyer, T. (2014). *Discourse-level features for statistical machine translation* (PhD Dissertation). EPFL and Idiap Research Institute, Lausanne and Martigy.

Meyer, T., & Popescu-Belis, A. (2012). Using sense-labeled discourse connectives for statistical machine translation. In Proceedings of the Joint Workshop on Exploiting Synergies between Information Retrieval and Machine Translation (ESIRMT) and Hybrid Approaches to Machine Translation (HyTra) (pp. 129–138). Association for Computational Linguistics.

Miltsakaki, E., Robaldo, L., Lee, A., & Joshi, A. (2008). Sense annotation in the Penn Discourse Tree Bank. Computational Linguistics and Intelligent Text Processing, Lecture Notes in Computer Science, 4919: 275–286.

Moeschler, J. (1989). Modélisation du dialogue: représentation de l'inférence argumentative. Paris: Hermès.

Moeschler, J. (2002). Connecteurs, encodage conceptuel et encodage procédural. *Cahiers de Linguistique Française*, *24*, 265–292.

Prasad, R., Dinesh, N., Lee, A., Miltsakaki, E., Robaldo, L., Joshi, A. K., & Webber, B. L. (2008). The Penn Discourse TreeBank 2.0. In *Proceedings of the 6th International conference on Language Resources and Evaluation*. Marrakech. Retrieved from http://www.lrec-conf.org/proceedings/lrec2008/

Prasad, R., Miltsakaki, E., Joshi, A., & Webber, B. (2004). Annotation and data mining of the Penn Discourse TreeBank. In *Proceedings of the 2004 ACL Workshop on Discourse Annotation* (pp. 88–97). Barcelona, Spain.

Rouchota, V. (1998). Procedural meaning and parenthetical discourse markers. In A. H. Jucker & Y. Ziv (Eds.), *Discourse Markers: Descriptions and theory* (pp. 97–126). Amsterdam: John Benjamins.

Roze, C., Danlos, L., & Muller, P. (2010). LEXCONN: a French lexicon of discourse connectives. *Proceedings of Multidisciplinary Approaches to Discourse (MAD 2010), Moissac, France*.

Sanders, T. J., & Noordman, L. G. (2000). The role of coherence relations and their linguistic markers in text processing. *Discourse Processes*, *29*(1), 37–60.

Sanders, T. J., Spooren, W. P., & Noordman, L. G. (1992). Toward a taxonomy of coherence relations. *Discourse Processes*, *15*(1), 1–35.

Sanders, T. J., Spooren, W. P., & Noordman, L. G. (1993). Coherence relations in a cognitive theory of discourse representation. *Cognitive Linguistics*, *4*(2), 93–133.

Scholman, M., Evers-Vermeul, J. & Sanders, T. (2016). A step-wise approach to discourse annotations. Towards a reliable categorization of coherence relations. *Dialogue and Discourse*, 7(2), 1-28.

Traxler, M. J., Bybee, M. D., & Pickering, M. J. (1997). Influence of connectives on language comprehension: eye tracking evidence for incremental interpretation. *The Quarterly Journal of Experimental Psychology: Section A*, *50*(3), 481–497.

Zufferey, S. (2012). Car, parce que, puisque revisited: Three empirical studies on French causal connectives. *Journal of Pragmatics*, *44*(2), 138–153.

Zufferey, S. (2014). Givenness, procedural meaning and connectives. The case of French puisque. *Journal of Pragmatics*, *62*, 121–135.

Zufferey, S., & Gygax, P. M. (2015). The Role of Perspective Shifts for Processing and Translating Discourse Relations. *Discourse Processes*, *53*(7), 532–555.

Zufferey, S. Mak, W., Sanders, T. (2015). A cross-linguistic perspective on the acquisition of causal connectives and relations. International Review of Pragmatics, 7(1), 22-39.

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Revisiting the role of syntax in discourse marker annotation

Liesbeth Degand & Ludivine Crible
(Université catholique de Louvain)

Within the large panel of theoretical and empirical approaches to discourse, the bulk of research on discourse markers and discourse relations targets functional classification, striving (and so far, failing) to achieve some consensus on categories and taxonomies meeting the requirements of exhaustivity, cognitive plausibility and operationality when applied to authentic data, either written or spoken (e.g. Prasad et al. 2008; Rehbein et al. 2016; Crible & Degand in press). By contrast, the role of syntactic considerations in the definition and disambiguation of discourse markers is often neglected (see Danlos 2013; Webber et al. 2016 for a few recent exceptions). In particular, most authors refer to the "clause" as the minimal unit to enter discourse-level relations (as opposed to syntactic, sentence-level relations), assuming that such a concept is stable when it actually covers several borderline cases (e.g. verbless clauses, relative clauses). Furthermore, the status of subordinating conjunctions within the

category is also questionable given that some of their uses are syntactically integrated in the dependency structure and therefore do not meet the optionality and weak-clause association criteria (Blühdorn 2008; Degand 2016a, 2016b).

In this paper, we propose to address this gap and investigate the syntax-discourse interface, focusing in particular on the relation between position, degree of syntactic integration and function of discourse markers. Concretely, we will take grammatical category, syntactic position and co-occurrence with pauses as evidence for different functional categories as defined and applied by Crible (2017a, 2017b) to a comparable corpus of spoken English and French. The specific behavior of ideational/semantic/objective relations and subordinating conjunctions observed in the corpus suggests a continuum between syntax and discourse which questions the systematic integration of these borderline elements in the category and functional spectrum of discourse markers.

References

Blühdorn, H. 2008. Subordination and coordination in syntax, semantics and discourse : Evidence from the study of connectives. In C. Fabricius-Hansen & W. Ramm (eds), *"Subordination" versus "Coordination" in Sentence and Text*, Amsterdam, John Benjamins: 59-85.

Crible, L. 2017a. *Discourse markers, (dis)fluency and the non-linear structure of speech: A contrastive usage-based study in English and French*. Doctoral dissertation, Université catholique de Louvain.

Crible, L. 2017b. Towards an operational category of discourse markers: A definition and its model. In C. Fedriani & A. Sansó (eds), *Discourse Markers, Pragmatic Markers and Modal Particles: New Perspectives*, Amsterdam, John Benjamins: 101-126.

Crible, L. & Degand, L. in press. Reliability vs. granularity in discourse annotation: What is the trade-off? *Corpus Linguistics and Linguistic Theory*.

Danlos, L. 2013. Connecteurs de discours adverbiaux: Problèmes à l'interface syntaxe-sémantique. *Linguisticae Investigationes* 36(2) : 261-275.

Degand, L. 2016a. Causal relations between discourse and grammar. Paper given at the *Types and Expressions of Causal and Other Logical Relations Workshop*, October 21st, Helsinki, Finland.

Degand, L. 2016b. Omdat ik heb tot half één tentamen. Over nevenschikkend omdat in context. *Nederlandse Taalkunde* 21(3): 419-431.

Prasad, R., Dinesh, N., Lee, A., Miltsakaki, E., Robaldo, L., Joshi, A. & Webber, B. 2008. The Penn Discourse Treebank 2.0. In *Proceedings of the 6th International Conference on Language Resources and Evaluation (LREC)*.

Rehbein, I., Scholman, M. & Demberg, V. 2016. Annotating discourse relations in spoken language: A comparison of the PDTB and CCR frameworks. In *Proceedings of LREC 2016, Portoroz, Slovenia, May*.

Webber, B., Prasad, R., Lee, A. & Aravind, J. 2016. Discourse annotation of conjoined VPs. In *Conference Handbook of the Second Action Conference of TextLink, Budapest, Hungary, April*: 135-140.

Crowdsourcing discourse relation annotations: The influence of context on readers' interpretations

Merel Scholman & Vera Demberg
(Saarland University)

In the field of discourse annotation, there is a general consensus that annotators need to take into account the linguistic context of a relation in order to correctly interpret the relation (see Lascarides, Asher & Oberlander, 1992), since context can be used to eliminate ambiguity, identify referents and detect conversational implicatures (Song, 2010). However, discourse annotation frameworks stipulate that the segments of a coherence relation should convey sufficient information for the intended discourse relation to be inferred. If this is indeed the case, context should not influence the readers' interpretations of discourse relations greatly. In the current study, we therefore experimentally examine the influence of context on the interpretation of a discourse relation, with a specific focus on whether there is an interaction between characteristics of the segment and the presence of context.

In a crowdsourcing experiment, we asked English speakers (n=111) to insert connectives from a predefined list into coherence relations. The experimental items consisted of 234 relations from the Penn Discourse Treebank (PDTB, Prasad et al., 2008). In order to obtain discourse relation classification information from untrained participants via crowdsourcing, we compiled a list of connectives that unambiguously mark our target relations, drawing on a classification by Knott and Dale (1994).

Participants were divided into two conditions. One group of participants only saw the relation; the other group also saw two preceding and one following context sentence. Every item received insertions from 12 participants in each condition.

Surprisingly, there was no major shift in the distribution of inserted connectives overall. More detailed manual inspection of items for which distributions differed between conditions (8% of all items) revealed several characteristics of segments that influence the effect of context.

Presence of context only lead to higher annotator agreement when:

- the first segment of a relation refers to an entity or event in the context, or consists of a deranked subordinate clause attaching to the context;
- the context introduces important background information regarding the topic;
- the context sentence following the relation expands on the second. We also found that for certain items, subjects agreed more on a specific connective in the no-context condition. These items typically contained a paragraph break or topic shift between the context and the first segment.

We conclude that readers are able to infer the intended relation from only the segments. We will discuss the implications of these results for discourse annotation.

References

Knott, A., & Dale, R., (1994). Choosing a set of coherence relations for text generation: a data-driven approach. In *Trends in Natural Language Generation An Artificial Intelligence Perspective* (pp. 47-67). Springer Berlin Heidelberg.

Lascarides, A., Asher, N., & Oberlander, J. (1992). Inferring discourse relations in context. In *Proceedings of the 30th annual meeting on Association for Computational Linguistics* (pp. 1-8). Association for Computational Linguistics.

Prasad, R., Dinesh, N., Lee, A., Miltsakaki, E., Robaldo, L., Joshi, A. K., & Webber, B. L. (2008). The Penn Discourse TreeBank 2.0. In *Proceedings of the International Conference on Language Resources and Evaluation (LREC)*.

Song, L. (2010). The Role of Context in Discourse Analysis. *Journal of Language Teaching and Research*, *1*(6), 876-879.

Eliciting connectivity: A comparison of three methods of eliciting data on discourse relations in two genres

Robert M. Maier & Anita Fetzer

(University of Augsburg)

The empirical study of discourse connectivity and its signalling with discourse connectives places researchers at a conundrum: Observation and comparable field methods may find themselves challenged to provide statistically reliable insights about infrequent phenomena; experimental methods like targeted elicitation promise better focus, but must be considered doubtful in terms of 'naturalness' of productions, i.e. their environmental validity. Some researchers (e.g. Jucker, 2009) take the latter as an argument to focus on the former; we treat environmental impact as a variable that may increase understanding of the processing of discourse connectivity and discourse in general.

To this purpose, we will first discuss the relation between discourse, environmental impact, and language production on the basis of Levelt's (1989) processing model. Then, we will report results from a pilot study with an editing-based task that was administered to three groups of informants with a different method for each. This is based on a study of linguistic realizations of discourse connectivity in different text genres, where discourse relations (DRs) were realized through (overt) signalling, through (implicit) encoding, or a combination of both (see Speyer & Fetzer, 2014; Maier, Hofmockel & Fetzer, 2016). In this study, native speakers of English were asked to expand a set sequence of "bare" discourse units (i.e. without overt markers of DRs or encoded background-anchored adverbials) into a well-formed text of a given genre, without changes to the sequential order of units . In other words, participants developed a cognitive representation of the discourse underlying the "bare" units, and added linguistic cues according to this representation (specifying in particular the DRs holding between bare units).

The three methodologically different implementations of this task asked participants to work in one of three different ways:

(1)   silently on their own (thus providing data, but no possibility for insights into the processes that brought it about);

(2)   on their own as above, but following a think-aloud protocol (a common keyhole approach into cognitive processing in the course of tasks);

(3)   in pairs, interacting to co-construct a solution by aligning individual representations and aligning them into one (presumably externalizing parts of their joint cognitive processes).

Of these approaches, (1) emulates regular conditions of written text production as closely as possible, (2) adds the presumably 'artificial' requirement of a think-aloud protocol, and (3) focuses on text editing as a type of negotiation (cf. Storch, 2007).

Different degrees of task familiarity and artficiality in each of these constellations suggest that each may have a slightly different impact on the discourse representations that inform participants' responses to otherwise identical stimuli. Preliminary findings point to systematic differences in the incidence of overt productions per DR across genres: e.g., solitary text production provides more

examples (40.3%) of overt realizations of the *Comment* DR than co-constructed texts (5.3%); overt *Explanation* is relatively less frequent (57.7% vs 73.2%), whereas *Contrast* is frequently realized overtly throughout.

Apart from detailed pilot findings regarding the impact of production context on the realization of connectivity and discourse in general, we will discuss implications of these findings for theory and research in related fields of pragmatics and psycholinguistics.

References:

Jucker, A H (2009). Speech act research between armchair, field and laboratory: The case of compliments. *Journal of Pragmatics*, 41(8): 1611-35.

Levelt, W J M (1989). *Speaking. From Intention to articulation.* Cambridge: MIT.

Maier, R M; Hofmockel, C; Fetzer, A (2016). The negotiation of discourse relations in context: Co-constructing degrees of overtness. *Intercultural Pragmatics*, 13(1): 71-105.

Speyer, A; Fetzer, A (2014). The coding of discourse relations in English and German argumentative discourse. In: H Gruber & G Redeker (ed.s), *The pragmatics of discourse coherence: Theories and applications*, pp.87-119. Amsterdam: Benjamins.

Storch, N (2007). Investigating the merits of pair work on a text editing task in ESL classes. *Language Teaching Research*, 11(2): 143-159.

Testing interdependent annotation levels for sense disambiguation in spoken English, French and Polish

Ludivine Crible & Liesbeth Degand
(Université catholique de Louvain)

Starting from the observation that major discourse annotation frameworks (e.g. PDTB, Prasad et al. 2008; RST, Mann & Thompson 1988) disagree on the top levels (number and type) and the specific relations they include, we present and test a multilingual model where the two annotation levels, namely domains and functions, are independent. It distinguishes between four domains (ideational, rhetorical, sequential, interpersonal) and fifteen functions. This proposal is a revision of Crible's (2017) where the choice of a domain strongly restricts the range of functions and where each function is included in one domain only. In the revised model, each function can, in principle, express each of the four domains: for instance, a contrastive relation can be ideational (connect objective facts), rhetorical (connect subjective arguments), sequential (target the structure of topics and turns) or interpersonal (manage the speaker-hearer relationship).

Independent annotation levels are assumed to enhance the reliability of the model, by allowing analysts to (dis)agree on one level but not necessarily on both. This adjustment stems from previous research (Crible & Degand, in press) showing that higher, more generic annotation levels trigger less disagreements. This new approach also provides empirical evidence for the need of integrating topic relations into taxonomies of discourse relations, as opposed to other frameworks (PDTB; CCR, Sanders et al. 1992), which excluded them.

The structure and operationalization of this taxonomy will be presented and discussed with respect to Crible's (in press) original model and other well-established proposals. So far, it has been applied to spoken English, French and Polish. We will report on quantitative findings of the distribution of domains and functions in each language, inter-rater agreement scores on the English and French data,

and a qualitative-quantitative comparison with the original inter-dependent model on the French data where both versions of the taxonomy have been applied.

References

Crible, L. 2017. Towards an operational category of discourse markers: A definition and its model. In C. Fedriani & A. Sansó (eds), *Discourse Markers, Pragmatic Markers and Modal Particles: New Perspectives*, Amsterdam, John Benjamins: 101-126.

Crible, L. & Degand, L. in press. Reliability vs. granularity in discourse annotation: What is the trade-off? *Corpus Linguistics and Linguistic Theory*.

Mann, W. & Thompson, S. 1988. Rhetorical Structure Theory: Toward a functional theory of text organization. *Text* 8(3): 243-281.

Prasad, R., Dinesh, N., Lee, A., Miltsakaki, E., Robaldo, L., Joshi, A. & Webber, B. 2008. The Penn Discourse Treebank 2.0. In *Proceedings of the 6th International Conference on Language Resources and Evaluation (LREC)*.

Sanders, T., Spooren, W. & Noordman, L. 1992. Toward a taxonomy of coherence relations. *Discourse Processes* 15: 1-35.

Assessing the role of L1 transfer and working memory for learners' ability to process discourse connectives

Christelle Gillioz, Patrick Luethold, Pascal Gygax, & Sandrine Zufferey

(University of Bern; University of Fribourg; University of Fribourg; & University of Bern)

Discourse connectives are well-known to be difficult to master for second language learners (e.g. Crewe, 1990; Field & Yip, 1992; Granger & Tyson, 1996; Altenberg & Tapper, 1998; Bolton, Nelson & Hung, 2002; Müller, 2005; Degand & Hadermann, 2009), yet most studies have only analyzed students' productions in natural and elicited writings. In this paper, we assess the way French-speaking and German-speaking learners of English process and understand two English discourse connectives (*when* and *if*). We compare learners' competence across an on-line reading experiment involving eye-tracking and an off-line coherence judgement task without time constraint. The former task is meant to assess learners' implicit knowledge of connectives and the latter their explicit knowledge. Our goal is to test for the role of L1 transfer and working memory load for students' detection of misuses of connectives across both tasks. Two types of misuses are included in our experiments: inappropriate semantic uses of *when*, conveying a conditional meaning (1) and typically produced by German-speaking learners, and inappropriate semantic uses of *if* with a contrastive meaning (2), typically produced by French-speaking learners.

(1) The kids don't look very tired today. **When** they don't take a nap now, we can go out for a walk.
(2) The admission policy for foreign students is variable across universities. **If** in some of them all students can enroll, in others there is an entrance examination.

In a previous set of experiments, Zufferey, Mak, Degand & Sanders (2015) found that learners detect non-native uses of connectives during on-line reading but fall prey to L1 transfer when conscious grammaticality judgments are required. In a new set of experiments, an additional condition was included with the insertion of a new clause between the connective and the target region in the second segment, as in (3).

(3) The kids don't look very tired today. When, **in spite of all your efforts**, they don't take a nap now, we can go out for a walk.

This new condition was inserted in order to increase processing load. Results indicate that placing more demands on working memory has an impact on the detection of misuses of connectives in the online and offline tasks.

References

Altenberg B and Tapper T (1998) The use of adverbial connectors in advanced Swedish learners' written English. In: Granger S. (Ed.), *Learner English on Computer*. Addison-Wesley Longman, London, pp. 80–93.

Bolton K Nelson G and Hung J (2011) A corpus-based study of connectors in student's writing. *International Journal of Corpus Linguistics* 7(2), 165-182.

Crewe W (1990) The illogic of logical connectives. *ELT Journal* 44 (4), 316–325.

Degand L and Hadermann P (2009) Structure narrative et connecteurs temporels en français langue seconde. In: E. Havu et al. (Eds), *La langue en contexte. Actes du colloque Représentations du sens linguistique IV*. Société Néophilologique, Helsinki, pp. 19–34.

Field Y and Yip L (1992) A comparison of internal cohesive conjunction in the English essay writing of Cantonese speakers and native speakers of English. *RELC Journal* 23, 15–28.

Granger S and Tyson S (1996) Connector usage in English essay writing of native and non-native EFL speakers of English. *World Englishes* 15, 19–29.

Müller S (2005) *Discourse Markers in Native and Non-native English Discourse*. John Benjamins, Amsterdam.

Zufferey S Mak W Degand L and Sanders T (2015) Advanced learners' comprehension of discourse connectives: the role of L1 transfer across on-line and off-line tasks. *Second Language Research* 31(3), 389-411.

Restrictive relative clause constructions as implicit coherence relations

Jet Hoek & Hannah Rohde

(Utrecht University & University of Edinburgh)

Coherence relations are often assumed to hold between clauses, but some types of clauses tend to be excluded as candidate discourse segments. Many, though not all, discourse annotation approaches distinguish between restrictive and non-restrictive relative clauses (RCs). While non-restrictive RCs are usually granted the status of discourse segments, restrictive RCs are often exempt from receiving discourse segment status (Mann & Thompson 1988, PDTB Research Group 2008, Reese et al. 2007, Sanders & van Wijk, Verhagen 2001, but not Carlson & Marcu 2001).

In the current study, we examine whether and how the inference of discourse relations between a restrictive RC and its matrix clause influences subsequent discourse expectations. We recruited 56 participants through Amazon Mechanical Turk and presented them with 30 stimuli consisting of a matrix clause, a restrictive RC, and a connective (*because* or *even though*). The participants were instructed to provide a continuation for each item. The relation between the RC and its matrix clause

was designed to be either causal, as in (1a), negative causal (also known as 'concessive'), as in (1b), or purely informative, as in (1c).

(1) We thanked the neighbor
       a. who brought over a fruit basket because/even though …
       b. who dropped our newly inherited vase because/even though …
       c. who stopped by on Tuesday night because/even though …

All matrix verbs were NP2 biased implicit causality verbs, which favor upcoming explanations, including explanations in RCs (Rohde, Levy, & Kehler 2011). In addition, NP2 biased IC verbs favor continuations about the object (the NP2) over continuations about the subject (the NP1); the default next-mentioned referent following the clause in (1) would be *the neighbor*. The target stimuli were intermixed with 40 fillers of various types. All participants were native speakers of English.

Participants show distinct coreference patterns in their continuations across the six conditions (relation type+connective) in the next-mentioned referent, with the NP2 bias of the verb being strongest in the neutral+*because* condition and weakest in the causal+*because* and causal+*even though* conditions. The finding that restrictive RCs can influence a discourse-level phenomenon such as Next-Mention suggests that people can indeed infer a discourse relation between a restrictive RC and its matrix clause. This would justify considering restrictive RC constructions to be potential sites for implicit intra-sentential coherence relations.

References

Carlson, Lynn & Daniel Marcu. 2001. *Discourse Tagging Reference Manual*. ISI technical report ISI-TR-545. doi: ftp://128.9.176.20/isi-pubs/tr-545.pdf (accessed 23 July 2014).

Mann, William C. & Sandra A. Thompson. 1988. Rhetorical Structure Theory: Toward a functional theory of text organization. *Text* 8(3). 243-281.

PDTB Discourse Group. 2008. *The Penn Discourse Treebank 2.0 Annotation Manual*. IRCS technical report. http://repository.upenn.edu/cgi/viewcontent.cgi?article=1203&con text=ircs_reports

Reese, Brian, Julie Hunter, Nicholas Asher, Pascal Denis, & Jason Baldridge. 2007. *Reference manual for the analysis of rhetorical structure*. Unpublished manuscript. University of Texas at Austin, Austin, TX. http://timeml.org/jamesp/annotation_manual.pdf

Rohde, Hannah, Roger Levy, & Andrew Kehler. 2011. Anticipating Explanations in Relative Clause Processing. *Cognition* 118. 339-358.

Sanders, Ted J.M. & Carel H. van Wijk. 1996. PISA? A procedure for analyzing the structure of explanatory texts. *Text* 16(1). 91-132.

Verhagen, Arie. 2001. Subordination and discourse segmentation revisited, or: Why matrix clauses may be more dependent than complements. In Ted J.M. Sanders, Joost Schilperoord & Wilbert P.M.S. Spooren (eds.), *Text Representation: Linguistic and Psycholinguistic Aspects*, 337-357. Amsterdam & Philadelphia: John Benjamins.

Processing implicit and explicit temporal relations: Evidence from French

Cristina Grisot & Joanna Blochowiak

(University of Geneva/University of Neuchâtel & University of Neuchâtel)

A very rich psycholinguistics literature has shown that causal connectives facilitate the processing of the immediately following segment (e.g. Traxler et al. 1997; Sanders & Noordman 2000; Canestrelli et al. 2013; Zufferey 2014). Regarding temporal relations, Segal et al. (1991) and Murray (1997) found that readers have a strong expectance for a sentence to be temporally (sequential chronological) linked to its preceding context. Consequently, expected relations may remain implicit, in the sense that comprehenders prefer them implicit than rendered explicit through temporal connectives. Based on this, we investigated how comprehenders process discourse segments linked through sequential chronological relations, and which contain a past time verbal tense (obligatory) as in 0, and which is the role played by a temporal connective, such as *ensuite* 'then' as in 0.

(1)   Marie arriva/est arrivée à la maison à la maison. Elle prépara /a préparé le souper.
        'Mary arrived.PS/PC at home. She cooked.PS/PC the dinner.'
(2)   Marie arriva/est arrivée à la maison à la maison, *ensuite* elle prépara/ a préparé le souper.
        'Mary arrived.PS/PC at home, then she cooked.PS/PC the dinner.'

Scholars suggested that the compound past (PC) is underdetermined and compatible with sequential chronological, anti-chronological and synchronous temporal relations, whereas the simple past (PS) is less flexible and prefers sequential chronological relations (Kamp & Rohrer 1983; Moeschler 2000; Saussure 2003). Hence, we expected to find shorter reading times for the PS than for the PC.

The first experiment is a self-paced reading experiment with four conditions: the verbal tense (PC, PS) and the status (implicit/explicit using *ensuite*). 20 experimental items were distributed in two lists, which contained both verbal tenses either in the condition with connective or in the condition without connective. The participants (40 French native speakers, university students) were divided in two groups and each group saw only one list. In an offline experiment, participants had to evaluate the acceptability of sentences in the four conditions on a Likert scale from 1 (less acceptable) to 4 (most acceptable).

The results of the offline experiment indicated that the co-occurrence of the PS and PC with the connective *ensuite* is statistically significant less acceptable than the sentences without the connective. In order words, the connective diminishes the acceptability of a discourse in which the two segments are temporally related through an implicit sequential temporal relation. The results of the online experiment did not provide evidence in favour of a statistically significant difference between processing the PC and the PS, nor between processing implicit compared to explicit relations.

Based on these results, we will address the question of the role played a temporal connective for rendering explicit an implicit temporal relation both for online processing and for conscious offline evaluation. Following Segal et al. (1991) and Murray (1997), we conclude that temporal connectives do not behave as causal connectives (i.e. they do not facilitate processing) because people have expectations about the order of events, and that the information provided by the simple and the compound past is a linguistic cue sufficient for preferring the implicit relation to the explicit one. Additionally, these results do not correlate with experiments on other types of connectives, such as causal connectives, in which a facilitation effect was found for the condition in which the causal relation is overtly marked (Canestrelli et al. 2013; van Silfhout et al. 2015)

References

Canestrelli, A. R., Mak, W. M., & Sanders, T. J. (2013). Causal connectives in discourse processing: How differences in subjectivity are reflected in eye movements. *Language and Cognitive Processes*, *28*(9), 1394–1413.

Kamp, H., & Rohrer C. (1983). 'Tense in Texts'. In R. Bauerle, C. Schwarze, et A. von Stechow (eds.) *Meaning, Use and Interpretation of Language,* pp 250-69. Berlin: Walter de Gruyter.

Moeschler, J. (2000). Le modèle des inférences directionnelles. *Cahiers de Linguistique Française*, *22*, 57–100.

Murray, J. D. (1997). Connectives and narrative text: The role of continuity. *Memory & Cognition*, *25*(2), 227-236.

Sanders, T. J., & Noordman, L. G. (2000). The role of coherence relations and their linguistic markers in text processing. Discourse Processes, 29(1), 37–60.

Saussure, L. de. (2003). *Temps et pertinence*. Bruxelles : De Boeck-Duculot

Segal, E. M., Duchan, J. F., & Scott, P. J. (1991). The role of interclausal connectives in narrative structuring: Evidence from adults' interpretations of simple stories. *Discourse processes*, *14*(1), 27-54.

Traxler, M. J., Bybee, M. D., & Pickering, M. J. (1997). Influence of connectives on language comprehension: eye tracking evidence for incremental interpretation. *The Quarterly Journal of Experimental Psychology: Section A*, *50*(3), 481– 497.

van Silfhout, G., Evers-Vermeul, J., & Sanders, T. (2015). Connectives as processing signals: How students benefit in processing narrative and expository texts. *Discourse Processes*, *52*(1), 47-76.

Zufferey, S. (2014). Givenness, procedural meaning and connectives. The case of French puisque. *Journal of Pragmatics*, *62*, 121–135.

Coherence relations in co-speech gestures: A view from Israeli Hebrew

Anna Inbar

(Tel Aviv University)

The present study examines coherence relations in Spoken Israeli Hebrew across two modalities: the verbal and the gestural (co-speech gestures). The focus on gestures associated with abstract relations allows us to refine the following questions: (a) How does a gesture show a concrete visual image of abstract messages, and in what ways does it explain them? (b) What can be learned from the way gestures convey meaning, and how do they reveal aspects of the mechanism of language and underlying cognitive processes?

To do so, I compiled a 10-hour corpus of TV interviews in Hebrew with over 20 speakers. I first examined whether the coherence relations could be expressed through co-speech gestures or not. I found that different coherence relations—such as addition, alternation, contrast, concession, purpose, causality, conditions—in speech were indeed associated with specific gestures. However, the relations represented in gestures did not fully match those overtly expressed in spoken language. Rather, they seemed to represent a more fundamental system of relations.

The study of paused fragments of TV interviews in Hebrew involving hand movement reveals, for example, that parallel movement of one or both hands from side to side is associated with addition, alternation, and contrast, each of which is captured as a distinct relation in grammar. Circular motion gestures with one hand or both hands are common in utterances of purpose, causality, and conditions. This suggests the existence of the fundamental relations at the cognitive infrastructure unifying the relations mentioned above, which is revealed by gestures.

Additionally, based on the theories of metaphor and embodiment of Lakoff and Johnson, this work shows that gestures that use the channel of visual and physical communication unconsciously restore

the abstract and metaphorical discourse into its physical and experiential foundation, thus allowing a glimpse into the mechanisms underlying processes of human thought and conceptualization. The dominant form of gesture that accompanies the relations of addition, alternation, and contrast is delineating different areas in gesture space by moving one hand, or both hands simultaneously, from side to side. Analyzing the visual track of this gesture and revealing the core meaning that these relations share lead to the conclusion that this gesture signifies distinction. Empirical findings on the development of language and conceptualization suggest that differentiation between physical objects is carried out by creating a gap between them. Early in life, infants distinguish between objects when there is a gap between them. This early mechanism of differentiation is utilized by gestures in representing the distinction between abstract referents as well.

In conclusion, analyzing the visual track of gestures coordinated with connectives illuminates how at different levels of awareness abstract ideas are relocated into concrete and perceptible domains. A comparative analysis of the two communication channels, which highlights the structural differences between them, could contribute to our understanding of the cognitive processes underlying verbal reasoning.

References

Cienki, A. & Müller, C. (eds.). 2008. *Metaphor and Gesture*. (*Gesture studies 3*.) Amsterdam: John Benjamins.

Gopnik, A. 2011. A unified account of abstract structure and conceptual change: Probabilistic models and early learning mechanisms. Commentary on Susan Carey "The Origin of Concepts". *Behavioral and Brain Sciences* 34(3), 129–130.

Kendon, A. 2004. *Gesture: Visible Action as Utterance*. Pennsylvania: University of Pennsylvania.

Kendon, A. 2007. An Agenda for Gesture Studies. *Semiotic Review of Books* 7(3).

Lakoff, G. & Johnson, M. 1999. *Philosophy in the Flesh: the embodied mind and its challenge to Western thought*. NY: Basic Books.

Sovran, T. 2013. *Relational semantics and the anatomy of abstraction*, New York: Routledge.

Spelke, E. S. 1985. Perception of unity, persistence, and identity: Thoughts on infants' conceptions of objects. In J. Mehler & R. Fox (eds.), *Neonate cognition*. Hillsdale, NJ: Erlbaum.

Sweetser, E. 2006. Looking at space to study mental spaces: Co-speech gesture as a crucial data source in cognitive linguistics. In Monika Gonzales-Marquez, Irene Mittleberg, Seana Coulson and Michael Spivey (eds.), *Methods in Cognitive Linguistics*. Amsterdam: John Benjamins. 203–226.

Sweetser, E. 2009. What does it mean to compare Language and Gesture? Modalities and Contrasts. In Jiansheng Guo et al. (eds.), *Crosslinguistic approaches to the psychology of language: Studies in the tradition of Dan Isaac Slobin*. New York: Psychology Press. 357–366.

WORKSHOP 6

Confronting codeswitching theories with corpus and experimental data

Evangelia Adamou & Felicity Meakins
(CNRS, France & U-Queensland, Australia)

Various theoretical frameworks have made a number of generalizations and predictions about the patterns found in intraclausal codeswitching across a variety of bi/multilingual settings. Although many cross-linguistic patterns have been observed and successfully predicted by these theories, increasing amounts of corpus and experimental data are providing challenges to the explanatory power of these theories. The aim of this workshop is to gather specialists of bilingualism and language contact who will bring new corpus and experimental data to competing theories of codeswitching.

Different approaches have been taken to predict potential switch-sites in intraclausal codeswitching. Some utilize existing formal syntactic theories (DiSciullo & Muysken 1986; McSwan 1999), and others base predictions on theory-specific morphological types, most notably the 4-M model of codeswitching (Myers-Scotton 1993, 2002; Deuchar 2006; Myers-Scotton & Jake 2016). Many predictions made by these models, particularly the 4-M model, are also reflected in the borrowing literature (e.g. Weinreich 1974 [1953]; Thomason & Kaufman 1988; Gardani 2008). Where aberrant cases of switches occur, the typological congruence of the languages in contact is often claimed to trump these universal constraints (Sebba 1998; Muysken 2000; Meakins & O'Shannessy 2012; Meakins 2014). These approaches have stressed that switch points are largely determined by absolute typological constraints, as well as by the typological match of the languages in contact. Despite the relative success of these approaches, counter-examples exist in the literature (Meakins 2011; Adamou & Granqvist 2015; Adamou 2016).

More recent formal approaches are attempting to link bilingual data to linguistic theory (Muysken 2012; Benmamoun, Montrul & Polinsky 2013a, 2013b). For example, the Interface Hypothesis (Sorace 2011) predicts that bilingualism is more likely to affect linguistic structures made up of more than one component, namely external interfaces involving syntax and pragmatics. Nonetheless, it appears that the Interface Hypothesis *alone* cannot account for a variety of datasets, and more criteria need to be (re-)introduced, such as structural complexity and memory capacity (Laleko & Polinsky in press).

In contrast, probabilistic approaches to codeswitching predict that higher levels of abstraction are shaped by language practices. Such studies have a long tradition in the variationist framework (Poplack 1980; Poplack & Dion 2012; Torres Cacoullos & Travis 2015, 2016) and more recently in usage-based approaches (Backus 2015). Finally, Matras (2009) offers an integrated, functional approach that combines language processing requirements, communication goals, and community-level practices.

In particular, we call for papers addressing any of the following questions:

- How can bilingual data inform linguistic theory?
- Code-switched clauses & bilinguals: one grammar or two?
- Are specific linguistic categories more vulnerable to interactional pressure and processing constraints?
- What is the role of typological and structural constraints?

- How does frequency and exposure interact with abstract rules and processing?

References

Adamou, E. (2016). *A corpus-driven approach to language contact: Endangered languages in a comparative perspective*. Boston & Berlin: Mouton de Gruyter.

Adamou, E. & Granqvist, K. (2015). Unevenly mixed Romani languages. *International Journal of Bilingualism* 19. 525–547.

Backus, A. M. (2015). A usage-based approach to codeswitching: The need for reconciling structure and function. *Code-switching Between Structural and Sociolinguistic Perspectives,* 19–37. Berlin: Mouton de Gruyter.

Benmamoun, S., S. Montrul & M. Polinsky. (2013a). Heritage languages and their speakers: Opportunities and challenges for linguistics. *Theoretical Linguistics* 39. 129-181.

Benmamoun, S., S. Montrul & M. Polinsky. (2013b). Defining an "ideal" heritage speaker (Reply to peer commentaries in TL). *Theoretical Linguistics* 39. 259-294.

Deuchar, M. (2006). Welsh-English code-switching and the Matrix Language frame model. *Lingua* 116. 1986-2011.

Gardani, F. (2008). *Borrowing of inflectional morphemes in language contact*. Frankfurt: Peter Lang.

Laleko, O. & M. Polinsky. In Press. Between syntax and discourse: Topic and case marking in heritage speakers and L2 learners of Japanese and Korean. *Linguistic Approaches to Bilingualism*. Accessed online at http://scholar.harvard.edu/mpolinsky/publications?page=2

Matras, Y. (2009). *Language contact*. Cambridge: Cambridge University Press.

Meakins, F. (2011). Borrowing contextual inflection: Evidence from northern Australia. *Morphology* 21(1). 57-87.

Meakins, F. (2014). Nominals as adjuncts or arguments: Further evidence from language mixing. In R. Pensalfini, D. Guilleman, & M. Turpin (Eds.), *Language Description Informed by Theory* (pp. 283–315). Amsterdam: John Benjamins.

Meakins, F. & C. O'Shannessy. (2012). Typological constraints on verb integration in two Australian mixed languages. *Journal of Language Contact* 5(2). 216-246.

Muysken, P. (2000). *Bilingual speech: A typology of code-mixing*. Cambridge: Cambridge University Press.

Muysken, P. (2012). Spanish affixes in the Quechua languages: A multidimensional perspective. *Lingua* 122. 481-493.

Myers-Scotton, C. (1993). *Duelling Languages: Grammatical Structure in Code-switching*. Oxford: Clarendon press.

Myers-Scotton, C. (2002). *Contact linguistics, bilingual encounters and grammatical outcomes*. Oxford: Oxford University Press.

Myers-Scotton, C. & J. Jake. (2016). Revisiting the 4-M model: Codeswitching and morpheme election at the abstract level. *International Journal of Bilingualism,* Published online before print on February 9, 2016, doi:10.1177/1367006915626588.

O'Shannessy, C. (2012). The role of codeswitched input to children in the origin of a new mixed language. *Linguistics* 50. 305-340.

Poplack, S. (1980). Sometimes I'll start a sentence in Spanish y termino en espanol. *Linguistics* 18. 581-618.

Poplack, S. & N. Dion. (2012). Myths and facts about loanword development. *Language Variation and Change* 24. 279-315.

Sebba, M. (1998). A congruence approach to the syntax of code-switching. *International Journal of Bilingualism* 2. 1-20.

Sorace, A. (2011). Pinning down the concept of "interface" in bilingualism. *Linguistic Approaches to Bilingualism* 1. 1-33.

Thomason, S. G. & T. Kaufman. (1988). *Language contact, creolization, and genetic linguistics*. Berkeley: University of California Press.

Torres Cacoullos, R. & C. Travis. (2015). Gauging convergence on the ground: Codeswitching in the community. *International Journal of Bilingualism* 19. 635-386.

Torres Cacoullos, R. & C. Travis. (2016). Two languages, one effect: structural priming in spontaneous code-switching. *Bilingualism: Language and Cognition* 19. 733-753.

Weinreich, U. (1974 [1953]). *Languages in contact: Findings and problems*. The Hague: Mouton.

Code-switching without convergence: Prosody in pronominal subject expression

Rena Torres Cacoullos & Catherine Travis

(Pennsylvania State University & Australian National University)

Does code-switching involve grammatical convergence—languages in contact becoming more similar to each other? Weinreich (1953/1968: 2) declared that in order to assess the linguistic outcomes of contact, "the differences and similarities between the languages in contact must be exhaustively stated". This requirement is, however, rarely met, and claims about convergence are often made on the basis of idealized monolingual norms. In this paper, we test for convergence through examination of four comparable, prosodically transcribed corpora of spontaneous speech, from monolingual benchmarks and from bilinguals' own use of the two languages in the same conversations as they engage in code-switching—the most stringent test of convergence.

The linguistic variable of interest is subject pronoun expression, the poster child for convergence of Spanish toward English (cf., Heine & Kuteva 2005: 70; Silva-Corvalán 1994: 145-165). Consistent with its classification as a non-null subject language, in English pronominal subjects are overwhelmingly expressed, while in the null-subject language Spanish, they are variably expressed. The bilingual data for the study is an unprecedented 300,000-word corpus capturing copious code-switching in a long-standing bilingual community in northern New Mexico (Torres Cacoullos & Travis 2017). We draw on quantitative evidence for grammatical change, considering both rates and conditioning of use.

First, if convergence had taken place, then the *rate* of unexpressed subjects should be higher in the bilinguals' English than in monolingual benchmarks, and that in Spanish should be lower. Neither of these is borne out in analysis of over 11,000 tokens of the variable from the four corpora: the overall rate of unexpressed subjects remains similarly low in the bilinguals' English as in monolingual varieties (under 5%) and remains similarly high in their Spanish (approximately 75%).

Second, the *probabilistic constraints* on unexpressed subjects should be more similar in bilinguals' English and Spanish than they are in monolingual benchmarks. Despite the vast difference in rates, the conditioning is remarkably similar even in monolingual varieties, concording with cross-linguistic tendencies in the effects of accessibility and priming. However, exhaustive comparison reveals a robust *conflict site* (Poplack & Meechan 1998), or locus of grammatical difference, on which to base the evaluation of change: unexpressed subjects in English are restricted to occurrence at the beginning of the Intonation Unit (IU), as in (1), except in coordinate clauses; in Spanish, in contrast, IU-initial position favors pronominal subjects. The languages also differ in the strength of structural linking.

Beyond coreferentiality with the preceding subject, unexpressed subjects are favored by linking to the preceding clause, via a coordinating conjunction or continuing intonation, both illustrated in (2). As seen in Figure 1, the effect is stronger in English than in Spanish, including in the bilingual varieties.

On the strength of these four-way comparisons we must conclude that convergence is not a concomitant of code-switching.

(1)   *where was I?*
        *.. **Ø got** lost.*   (15, 35:23-35:24)
(2)   *the third time ya Ø fui solo,*   '*the third time* (I) went alone**,**
        ***y ahí Ø seguí** solo.*   **and (I) remained** alone.'   (04, 7:46-7:49)

Figure 1   Unexpressed subject probabilities according to linking with preceding subject (four independent analyses)
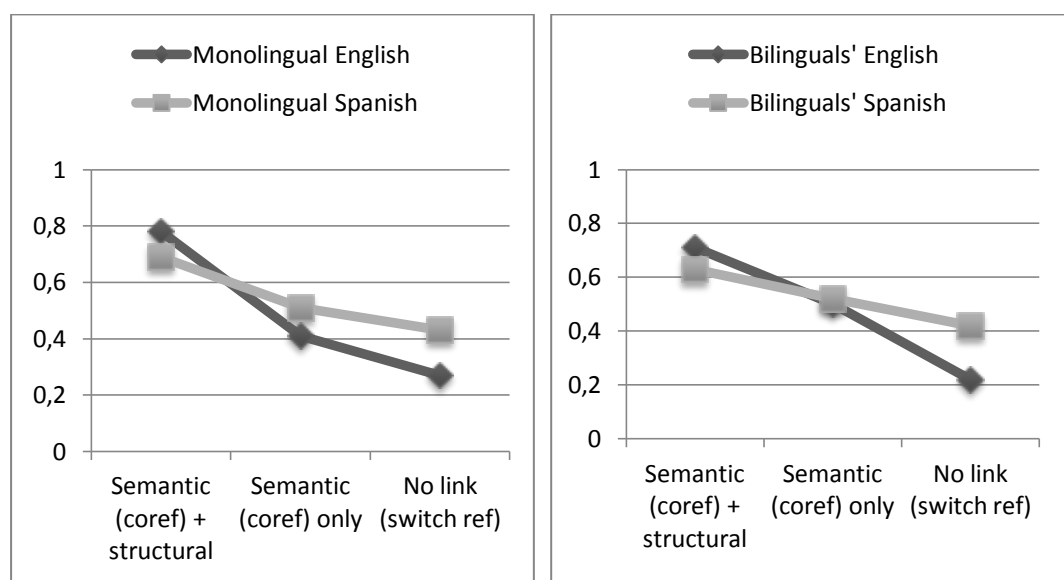
References

Heine, Bernd, & Kuteva, Tania. (2005). *Language contact and grammatical change*. Cambridge: Cambridge University Press.

Poplack, Shana, & Meechan, Marjory. (1998). Introduction: How languages fit together in codemixing. *International Journal of Bilingualism* 2(2):127-138.

Silva-Corvalán, Carmen. (1994). *Language contact and change: Spanish in Los Angeles*. Oxford: Clarendon Press.

Torres Cacoullos, Rena, & Travis, Catherine E. (2017). *Bilingualism in the community: Code-switching and grammars in contact*. Cambridge: Cambridge University Press.

Weinreich, Uriel. (1953/1968). *Languages in contact: Findings and problems*. The Hague: Mouton.

Gender assignment strategies in mixed Purepecha-Spanish noun phrases

Kate Bellamy & M. Carmen Parafita Couto
(Leiden University Centre for Linguistics)

This paper investigates gender assignment in mixed nominal constructions by Purepecha-Spanish bilinguals. Purepecha, spoken by around 100,000 people in the state of Michoacán (Mexico), has no grammatical gender, while Spanish has a two-way gender system. Can we predict what gender is assigned to Purepecha nouns inserted into an otherwise Spanish utterance?

Previous studies of Spanish-Basque and Spanish-English codeswitching (e.g. Parafita Couto et al., 2015, Dussias et al., 2013, Liceras et al., 2008) indicate that speakers use different gender assignment strategies in mixed nominal constructions: (i) analogical criteria, where the gender of the translation equivalent of the noun dictates the assignment, (ii) phonological cues from the ungendered language that coincide with gender assignment in the gendered language, or (iii) a default gender.

We investigated which gender assignment strategies were favoured by bilingual Purepecha-Spanish speakers using a production (N = 11) and a comprehension task (currently N = 10). For production, we ran a forced-switch director-matcher task (adapted from Gullberg et al. 2009). We elicited mixed nominal constructions intended to yield target responses such as (1). The 48 object nouns to be matched were equally distributed across both genders and controlled for canonicity of endings, with the - mostly canonical - target adjectives varying along dimensions of size (*chico* 'small' vs. *grande* 'large') and colour (*negro* 'black', *blanco* 'white', *rojo* 'red', *amarillo* 'yellow').

(1) la_{sp} $joskwa_{pur}$ $roja_{sp}$
        ART.DEF   star   red
        'the red star'

A total of 484 N-Adj combinations displaying gender were elicited. Of the 296 nouns with a masculine translation equivalent, 294 (99%) displayed masculine gender agreement. Of the 188 nouns with a feminine translation equivalent, 180 (96%) also appeared with a masculine adjective, thereby displaying a gender mismatch (2).

(2) $tsïtsïki_{pur}$ $chico_{sp}$ ma_{pur}
        flower.FEM   small.MASC   ART.INDEF
        'a small flower'

The production results indicate that participants employed a masculine default strategy for gender agreement between nouns and adjectives. This is surprising given the presence of phonological cues in Purepecha, such as word-final *-a* in *eskwa* 'eye', *joskwa* 'star', and *ma* 'one, a(n)', that could trigger phonological agreement strategies (see Parafita Couto et al., 2015 for a similar finding in Spanish-Basque bilinguals).

To test comprehension, we are currently running an online forced-choice task containing NPs of the type in (1) where participants must choose between masculine and feminine articles for Purepecha nouns. Data collection is ongoing, but partial results indicate that for the condition A (Purepecha nouns ending in /a/ but with masculine Spanish translation equivalents), sentences with masculine articles are preferred in only 23.3% of all choices, suggesting a phonological agreement strategy. In condition B (Purepecha nouns ending in /i/ or /u/ with feminine translation equivalents) feminine articles are preferred in 75% of the choices, suggesting that the translation equivalent determines the assignment.

The asymmetry in the results indicate that speakers can make use of different gender assignment strategies. We will discuss the methodological and theoretical implications of these results in the context of code-switching research.

References

Dussias, P.E., J.R. Valdés Kroff, R.E. Guzzardo Tamargo & C. Gerfen. 2013. When gender and looking go hand in hand: Grammatical gender processing in L2 Spanish, Studies in Second Language Acquisition, 35: 353 – 387.

Gullberg, M. P. Indefrey & P. Muysken. 2009. Research techniques for the study of code-switching. In: B. Bullock, A.J. Toribio (eds.), The Cambridge Handbook of Linguistic Code-switching, Cambridge: Cambridge University Press, pp. 21-39.

Liceras, J.M., R. Fernández Fuertes, S. Perales, R. Pérez-Tattam & K.T. Spradlin. 2008. Gender and gender agreement in bilingual native and non-native grammars: A view from child an adult functional-lexical mixings, Lingua 118: 827-851.

Parafita Couto, M.C., A. Munarriz, I. Epelde, M. Deuchar & B. Oyharçabal. 2015. Gender conflict resolution in Spanish–Basque mixed DPs, Bilingualism, Language and Cognition 18(2): 304-323.

Code-switching within the noun phrase – Evidence from three corpora

M. Carmen Parafita Couto & Marianne Gullberg

(Leiden University & Lund University)

This study investigates determiner-noun-adjective complexes as a 'conflict domain' in code-switching. Three corpora were identically coded (Welsh-English, Spanish-English, and Papiamento-Dutch). The Welsh-English corpus (Deuchar, Davies, Herring, Parafita Couto & Carter, 2014) consists of 40 hours of recorded data, with 151 speakers (81 female; age range 10-80 years) engaged in dyadic conversation on a free topic. The Spanish-English corpus (Deuchar et al. 2014), collected in Miami, Florida, consists of 30 hours of recorded data, with 85 speakers (52 female, age 11 range: 11-78 years). The Papiamento-Dutch corpus (Gullberg, Indefrey & Muysken, 2009) consists of three hours of free conversation from six 30-minute recordings of four-party conversations involving 25 early functional Papiamento-Dutch bilinguals (15 female, age range: 18-61), born in Aruba (n=10), Curaçao (n=9), and Surinam (n=1), but resident in the Netherlands at the time of recording. The current analyses are based on subsets of the Welsh-English corpus (42 speakers) and the Spanish-English corpus (19 speakers), and on the entire Papiamento-Dutch corpus (25 speakers).

The languages differ with regard to gender and noun-adjective word order in the NP: (1) Spanish, Welsh, and Dutch have gender; English and Papiamento do not; (2) Spanish, Welsh, and Papiamento prefer post-nominal adjectives; Dutch and English prenominal ones. We test predictions on adjective order and determiner language derived from a) a generativist account (adjectives should appear in the order of the adjective language, and determiners should come from the language that has more phi features, cf. Cantone & MacSwan, 2009; Liceras, Fuertes, Perales, Pérez-Tattam & Spradlin, 2008), and b) the Matrix Language Frame Approach (adjectives should appear in the order of the matrix language of the clause, and determiners should come from the matrix language, Myers-Scotton, 1993; 2002).

The results reveal three patterns: 1) simplex switches between determiner and noun dominate in all language pairs; 2) in mixed noun phrases determiners overwhelmingly come from Welsh (+gender), Spanish (+gender), and Papiamento (-gender), respectively; 3) preposed adjectives are the most common in all language pairs, and they are followed by nouns in the same language.

The determiner results provide evidence against generativist predictions (determiners in Welsh, Spanish, and Dutch), since Papiamento provides determiners. Critically, Papiamento lacks gender/*phi*

features and should therefore not provide Determiners according to the generativist prediction. Instead, the matrix languages (Welsh, Spanish, English, and Papiamento) provide determiners (an overwhelming match between determiners and matrix languages).

In contrast, the word order results support predictions from both approaches. Determiners in Welsh, Spanish, and Papiamento are followed by adjectives and nouns in English and Dutch. Adjectives thus appear in the prenominal position of these languages. The results match both the generativist and the MLF predictions. The MLF would call these AN clusters 'islands'.

Arguably, the MLF predictions best fit the results, whereas the generativist predictions are only supported for word order, but not for gender. Overall, the findings highlight the importance of comparing multiple language pairs with similar coding. Two of the corpora did not allow any distinction to be made between the theoretical accounts. Only the Papiamento-Dutch corpus did.

References

Cantone, K. F., & MacSwan, J. (2009). The syntax of DP-internal codeswitching. In L. Isurin, D. Winford & K. de Bot (eds.) Multidisciplinary Approaches to Codeswitching (pp. 243-78). Amsterdam: John Benjamins Publishing.

Deuchar, M., Davies, P. Herring, J.R., Parafita Couto, M. & Carter, D. (2014) Building bilingual corpora: Welsh-English, Spanish-English and Spanish-Welsh. In E. M.Thomas and I. Mennen (eds) *Advances in the Study of Bilingualism* (pp.93-110). Bristol: Multilingual Matters.

Gullberg, M., Indefrey, P., & Muysken, P. (2009). In Bullock, B. E., & Toribio, A. J. (Eds.), *The Cambridge Handbook of Linguistic Code-Switching*. Cambridge: Cambridge University Press. (pp. 21-39).

Liceras, J. M., Fuertes, R. F., Perales, S., Pérez-Tattam, R., & Spradlin, K. T. (2008). Gender and gender agreement in bilingual native and non-native grammars: A view from child and adult functional–lexical mixings. *Lingua, 118*, 827-851.

Myers-Scotton, C. (1993). *Social motivations for codeswitching: Evidence from Africa*. Oxford: Clarendon Press.

Myers-Scotton, C. (2002). *Contact linguistics: Bilingual encounters and grammatical outcomes.* Oxford: Oxford University Press.

How can determiner asymmetry in mixed nominal constructions inform linguistic theory?

Jeffrey Blokzijl, Margaret Deuchar, Kevin Donnelly, & M. Carmen Parafita Couto

This paper focuses on the question of which factors influence the language of the determiner in mixed nominal constructions like *el town* 'the town' versus *the ciudad* 'the town' in Spanish/English code-switching. Liceras et al (2008) and Moro (2014) argue that purely linguistic factors are at play, suggesting that mixed nominal constructions are more likely to resemble *el town* than *the ciudad* because of the more grammaticised nature of the Spanish determiner in comparison with the English determiner. However, these predictions do not take into account the suggestion by Herring et al (2010) that the language of the determiner generally matches the language of the finite verb in the same clause. If this suggestion is correct then it gives rise to another question: which factors determine the language of the finite verb in the speech of bilinguals, who can choose between the verbs (and syntactic structure) of both languages?

The 30-hour Bangor corpus of Miami Spanish/English data (larger than that used by Herring et al and consisting of 35 hours and 84 speakers) was used to extract all occurrences of nominal constructions containing determiners and nouns, both same- and mixed-language. For comparative purposes a similar process was applied to a smaller corpus (16 hours, 16 speakers) of Spanish/English creole data collected in Nicaragua. In each case the language of the finite verb was coded in order to test the hypothesis that the language of the finite verb matches the language of the determiner in both mixed and unmixed nominal constructions. In the Miami data we found a 98% match in 8586 nominal constructions, and in the Nicaragua data we found a 100% match in the 326 nominal constructions analysed so far between the English creole verbs/determiners.

If the language of the determiner is chosen according to the language of the finite verb then there is less to discuss about the reasons for its choice, but an interesting question arises about when or why participants choose to switch to a following noun in a different language. Participants in the Miami data switched more when Spanish was the verb (and determiner) language than when it was English, and in the Nicaraguan data they switched more when English creole was the verb (and determiner) language. We explain this in terms of a preference for switching to the societally dominant language, English in Miami and Spanish in Nicaragua.

We then addressed the second question mentioned above, which factors determine the language of the finite verb. We expected extralinguistic factors such as age of acquisition and social network to be influential. We will report on our findings and their implications.

References

Herring, J.R., Deuchar, M., Parafita Couto, M.C., & Moro Quintanilla, M. (2010) 'I saw the *madre*': evaluating predictions about codeswitched determiner-noun sequences using Spanish-English and Welsh-English data. *International Journal of Bilingual Education and Bilingualism*, 13:5, 553-573.

Liceras, J.M., Fernández Fuertes, R., Perales, S., Pérez-Tattam Rocío, Spradlin, K. T. (2008) Gender and gender agreement in bilingual native and non-native grammars: A view from child and adult functional-lexical mixings. *Lingua* 118: 827-851.

Moro Quintanilla, M. (2014). The semantic interpretation and syntactic distribution of determiner phrases in Spanish-English codeswitching. In MacSwan, J. (ed) *Grammatical Theory and Bilingual Codeswitching*. Cambridge, Mass.: MIT Press, pp. 213-226.

Partially schematic constructions in Code-mixing of a German-English bilingual child

Antje Endesfelder Quick, Ad Backus, Elena Lieven, & Michael Tomasello
(Leipzig University; Tilburg University; University of Manchester & Max Planck Institute for Evolutionary Anthropology)

Code-mixing is one of the more salient phenomena that result from bilingualism. Bilingual acquisition data show that if children are mixing, this already occurs early on in the acquisition process. A rich literature exists that seeks to account for mixing patterns through the basic syntactic architecture of language. However, a focus on abstract syntax obscures our view on the acquisition of more concrete pieces of syntax. Bilingual child utterances often show evidence for the productivity of constructions, when open slots in a construction are filled in with lexemes from the other language. In many cases, these constructions come mostly from one of the languages, creating an asymmetry that is often found

in adult code-mixing and which is known as the 'matrix language effect'. We suggest a usage-based approach to this phenomenon, and argue that it gives us a better account of bilingual acquisition than accounts that focus on abstract syntax or UG.

Usage-based approaches (e.g. Tomasello 2003, Bybee 2010) assume that units can vary in their degree of schematicity, ranging from completely lexically fixed lexical items (e.g. *How are you*?) to wholly schematic constructions (e.g. NP VP NP). In between are partially schematic constructions (e.g. *I want X*), and these will be shown to play an important role in the code-mixing of a German-English bilingual child aged 2;03 – 3;11. Code-mixing often consists of the use of a partially schematic construction from one language with the open slot filled by material from the other language.

Code-mixed data were coded for schematicity (n=321). Identification of fixed slots was determined by previous occurrence of that specific unit e.g. partially schematic *now I'm X* was supported by earlier occurrences such as *now I'm getting braun, and now I'am kaempfing you*. We also analyzed whether any part of the code-mix was primed via prior discourse (Table 1).

Our first analyses of schema types revealed effects of age and of the language of the fixed slot (χ^2 (4, N=277)= 65.1439, p<.001). The child's stronger language, according to MLU (Figure 1), tends to provide the fixed parts of partially schematic constructions whereas the open slot may be filled by the weaker language; mainly with content lexemes (Figure 2). The strength of this factor shows in an interesting reversal of the language's roles between the ages 3;00 and 3;10. During the period dominance changes from German to English which can be seen in the reversal of the language contributing the fixed slot. Concerning priming we found that in 72% of all mixed utterances at least one part (fixed or open) was primed; priming seems to equally affect both the fixed and the open parts of a schematic construction. This finding strengthens the need for a processing component in the explanation of code-mixing.

The results allow us to develop a more subtle account of what is generally referred to as a 'matrix language effect' in the code-switching literature, showing that this effect is mostly brought about by the selection of the most entrenched, partially schematic, constructions.

References

Bybee, Joan. 2010. *Language, Usage and Cognition*. Cambridge: Cambridge University Press.
Tomasello, M. (2003). *Constructing a language: A usage-based theory of language acquisition*. Cambridge: Harvard University Press.

Figures
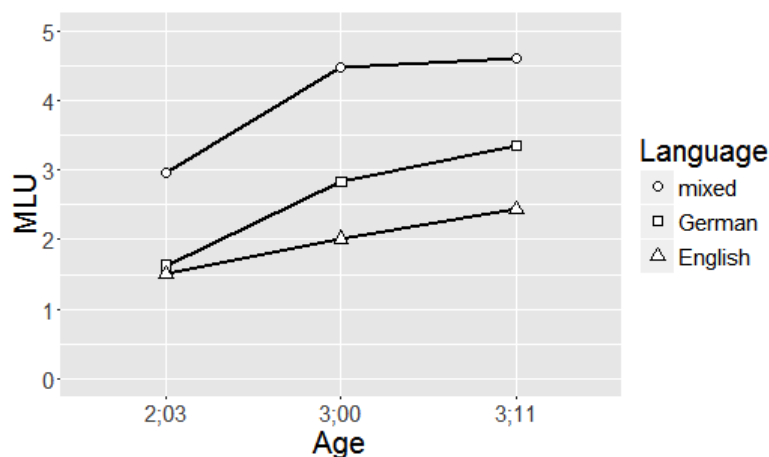
Figure 1. MLU
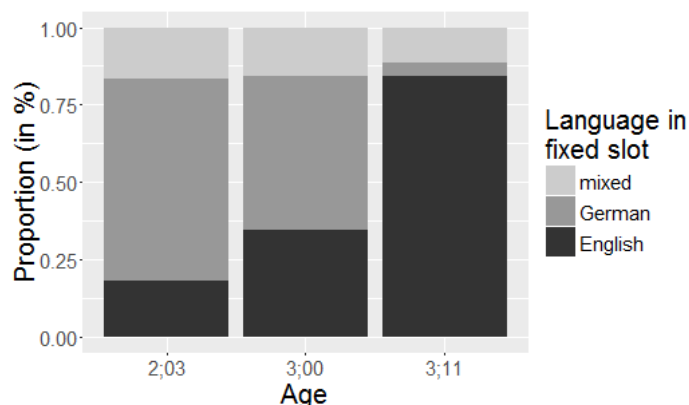
Figure 2. Language of the fixed slot

Modeling bilingual corpora to test syntactic constraints on code-switching

Barbara E. Bullock & Almeida Jacqueline Toribio
(The University of Texas)

Over the past decades, code-switching (CS) data has been marshaled to inform us about syntactic constructs (DiSciullo et al. 1986; Mahootian & Santorini 1996; González-Vilbazo & López, 2011). In this respect, CS data is thought to be especially valuable because it permits combinations of properties precluded in the examination of a single language, e.g., contrasting word order, selectional requirements, and inflectional properties (Chan 2009; Sebba 2009; Toribio & González-Vilbazo, 2014). Despite the recognition that CS data provides indispensable information, research on CS remains stymied by the tension between making generalization about CS patterns while also taking account of the diversity of patterns attested. In this paper, we present a research program that merges structural and corpus approaches in the study of CS; our aim is to move away from isolated examples and towards larger, more representative multilingual data sets over which reliable observations can be made. Crucial in this work is the appropriation of techniques from Natural Language Processing (NLP), without which large datasets cannot be exploited to their full potential. In default of syntactic parsing, which remains a challenge for multilingual data (Cetinoglu et al. 2016), we present our system for quantifying syntactic differences in CS between corpora (Guzmán et al. 2016). Using language identification and Part-of-Speech (POS) tags, we calculate the ratio of code-switched junctures to non-switched junctures for each POS bi-gram across each corpus. We then compare the probability of switching at any single juncture across corpora using a correspondence matrix. We use these results to visualize and to test proposed syntactic constraints. We illustrate the utility of our methods with application to bilingual corpora of diverse types (oral interviews, prose, film transcripts, SMS, Twitter) and we test the degree to which syntactic constraints, such as the Functional Head Constraint (Belazi et al. 1994), might make correct predictions across corpora and sub-corpora.

Three Uralic languages and Russian walk into a bar: Exploring the contact situation

Boglárka Janurik, Niko Partanen, & Simo Kantele

(University of Hamburg; Lattice laboratory CNRS, ENS/PSL and Univ. P3 / USPC France; & University of Helsinki)

In this study, we employ an annotation model to data from different Uralic languages. The data used is selected from the researchers' own fieldwork and supplemented with data made available by other sources of both spoken and written language. The corpora are the result of a careful selection from heterogenic sources and they are strongly limited by what is available, but since wider comparisons of Russian interference in these languages have not been previously conducted, we believe this provides a good starting point for investigation.

All Uralic languages spoken in Russia exist in intensive contact with Russian. The typologically similar languages selected here, Erzya, Komi-Zyrian and Udmurt, have a long history of contact with structurally different Russian, starting in the 9th century for Erzya, in the 13th century for Komi and at the latest in the mid-16th century for Udmurt (Keresztes 2011, Leinonen 2006). The contact has now reached the point of complete integration into modern Russian society, with a Russian-mediated set of concepts and discourses, as well as nearly universal bilingualism. All of these languages also have similar sphere of use, as they are actively used in both spoken and written media and also have clearly detectable internet presence.

Our annotation model distinguishes the following categories (based on Muysken 2000, Myers-Scotton 2002):

1. Insertions:
a) non-marked insertions
b) embedded language islands
c) mixed constituent type insertions 2. alternations
3. congruent lexicalizations

Whether the model suits cross-comparative examination is in itself an important research question and a test of the model's validity.

Although the premises for language contact are similar, the languages display clear differences. In the Komi data, Russian finite verbs are rare and when they occur, they tend to be overtly marked, with no gender agreement. Nevertheless, the Russian influence in Komi is strong (Leinonen 2009). In contrast, gender agreement occurs at least sporadically in Erzya, and Russian finite verbs are more common (Janurik 2015: 210). Differing from the others, Udmurt regularly uses a native auxiliary verb to embed Russian verb forms (Kantele 2016).

Udmurt light verb strategy in verb adaptation:

(1) ***zapisat'***   *kary-ny*   *turtty-śkod-a?*
     record   do-INF   intend-2SG.PRS-Q
     'Are you going to record?'

Komi-Zyrian example (IKDP: kpv_izva20140325-2-a-005) with an embedded language island and mixed constituent type insertions:

(2) ***do*** ***šk ol'n-ovo*** ***vozrast-a*** *vetl-i*   ***roditel'***-*jas-ked*   ***tundra***-*yn*
     Until   school-GEN   age-GEN   go-1SG.PST   parent-PL-COM   tundra-INES
     'Until the school age I went with my parents on the tundra.'

Erzya paradigm transfer:

(3) *mon*   **uže**   *viška*   *ping-ste*   **hoťe-l-a**   *uľ-ems*   **učiťeľ***-eks*
I   already small   age-ELA   want-PST-F   be-INF   teacher-TRA
'I have wanted to be a teacher since I was small.'

Despite some differences, there are also remarkable similarities: the Russian discourse particle system is used in all three languages, longer code-switching is associated with numerals and fixed phrases, and a large portion of the vocabulary and concepts is taken directly from Russian. Through the long history of contact, different stable conventions have emerged for the adaptation of Russian elements, reflecting both the native structures they have replaced and the particularities of each contact situation.

References

Janurik, Boglárka. "The emergence of gender agreement in code-switched verbal constructions in Erzya-Russian bilingual discourse." In: Stolz, Christel (ed.) *Language Empires in Comparative Perspective*. De Gruyter. p. 199–218

Kantele, Simo. 2016. Venäläislähtöiset verbit udmurtissa – lainautumista ja koodinvaihtoa [Verbs of Russian origin in Udmurt – borrowings and code-switching]. Unpublished Master's Thesis, University of Helsinki.

László, Keresztes. 2011. *Bevezetés a mordvin nyelvészetbe* [Introduction to Mordvin linguistics]. Debrecen University Press.

Leinonen, Marja. 2006. The Russification of Komi. Slavica Helsingiensia 27, p. 234-245

Leinonen, Marja. 2009. Russian influence on the Ižma Komi dialect. International Journal of Bilingualism, 13(3), p. 309–329.

Muysken, Pieter. 2000. *Bilingual Speech: A Typology of Code-mixing*. Cambridge: CUP.

Myers-Scotton, C. 2002. *Contact linguistics: Bilingual encounters and grammatical outcomes*. Oxford University Press.

Data sources

Blokland, Rogier; Chuprov, Vassily; Fedina, Maria; Fedina, Marina; Dmitriy Levchenko; Niko Partanen and Rießler, Michael. 2016: Iźva Komi Documentation Project corpus. Funded by Kone Foundation. URL: https://hdl.handle.net/1839/00-0000-0000-001B-99BC-F@view, example verified 2017-01-15, associated private GitHub repository commit: 8690fb5dac

Fenno-Ugrica collection of the National Library of Finland, browsed 2017-01-15. URL: http://fennougrica.kansalliskirjasto.fi/

Jazyki Rossii corpora of online texts. URL: http://web-corpora.net/wsgi3/minorlangs/, Erzya, Komi and Udmurt files downloaded 2017-01-15

The Corpus of Beserman Udmurt, Kielipankki Version. URL: http://urn.fi/urn:nbn:fi:lb-2016092601, accessed 2017-01-06 with Korp-API

Enduring and contemporary codeswitching practices in northern Australia

Jill Vaughan
(Norwegian University of Science and Technology)

In Maningrida, northern Australia, codeswitching is a commonplace phenomenon within a complex of both longstanding and more recent multilingual practices. Fourteen Indigenous languages representing three language families are spoken among 2500 people, alongside increasing use of English and contact varieties (such as Kriol, spoken further south in the Maningrida region, and right across northern Australia). Individual linguistic repertoires are typically large, but strong ideologies exist dictating rights/responsibilities around language ownership and use. A variety of code-mixing practices is observable between local Indigenous languages, and is now also widespread between local languages and English. Codeswitching has been a feature of the longstanding stable 'egalitarian' multilingual ecology of the region (Singer & Harris 2016), yet the practice is also symptomatic of a changing local language ecology, shaped by the large-scale incursion of English and implicated in the emergence of a local urban koine.

In this paper I consider whether general predictions about the nature and functioning of codeswitching account for practices in the Maningrida context, and for patterns attested across the diverse multilingual contexts of northern Australia more generally. I consider: (i) what patterns characterise (intraclausal) codeswitching practices between different Australian languages in the region, as opposed to codeswitching between an Australian language and Kriol or English? What (if any) generalisations can be made?; and (ii) are the distinctions observable accounted for by general predictions and constraints from dominant theoretical frameworks, or by the typological congruence of the languages implicated? Need we look beyond these factors to explain the patterns?

First I survey historical and contemporary descriptions of multilingual practices and codeswitching in the region. Little published work addresses codeswitching between Indigenous languages only, so I draw together available accounts from northern Australia (e.g. Coleman n.d.; Evans 2010; Haviland 1982; O'Keeffe 2016; Sutton 1978) to identify any tendencies, constraints and particularities. I consider to what extent observable patterns may be accounted for by established general principles, and whether regional language ideologies may also shape these outcomes of long-term contact. These data are compared with data from work on contemporary codeswitching between Indigenous languages, Kriol and/or English (e.g. Meakins 2012; McConvell 2002; O'Shannessy 2012) and I explore possible reasons for divergences in these practices. To this discussion I contribute data from multilingual interactions in Maningrida, where codeswitching is evident both between local languages and also with English. Results indicate that general predictions, along with the effects of typological congruence, account for many observable tendencies in the data (e.g. switch-sites). However other factors, such as constraints exerted by local ideologies of multilingualism and linguistic purism, as well as shifting socio-interactional goals, may help account for certain distinct patterns in the Maningrida data at least (e.g. lower incidence of certain types of codeswitching between Indigenous languages, despite higher typological congruence and shared multilingual repertoires). Data from this context present an opportunity to test theories and to explore the impact of social-psychological pressures of divergence and convergence in cultural and linguistic practice.

References

Coleman, C. (n.d.). *Unpublished fieldnotes 1992-8.*

Evans, N. (2010). A tale of many tongues: polyglot narrative in North Australian oral traditions. In B. Baker, I. Mushin, M. Harvey & R. Gardner (eds), *Indigenous Language and Social Identity: papers in honour of Michael Walsh*. Canberra, ACT: Pacific Linguistics (pp. 275-295).

Haviland, J. B. (1982). Kin and country at Wakooka outstation: an exercise in rich interpretation. *International Journal of the Sociology of Language*, 36, 53–70.

Meakins, F. (2012). Which Mix — code-switching or a mixed language? — Gurindji Kriol. *Journal of Pidgin and Creole Languages*, 27(1): 105–140.

McConvell, P. (2002). Mix-Im-Up Speech and Emergent Mixed Languages in Indigenous Australia. *Proceedings of SALSA 2001 (Symposium on Language and Society). Texas Linguistic Forum,* 44(1): 328–349.

O'Keeffe, I. (2016). *Multilingual manyardi/kun-borrk: Manifestations of multilingualism in the classical song traditions of Western Arnhem Land*. PhD thesis, University of Melbourne.

O'Shannessy, C. (2012). The role of codeswitched input to children in the origin of a new mixed language. *Linguistics* 50: 305-340.

Singer, R., & Harris, S. (2016). What practices and ideologies support small-scale multilingualism? A case study of Warruwi Community, northern Australia. *International Journal of the Sociology of Language*, 241: 163-208.

Sutton, P. (1978). *Wik: Aboriginal society, territory and language at Cape Keerweer, Cape York Peninsula, Australia (PhD thesis).* PhD thesis, University of Queensland.

Nikolay Hakimov

WORKSHOP 7

Definiteness, possessivity and exhaustivity: Formalizing synchronic and diachronic connections

Anne Carlier, Carmen Dobrovie-Sorin, Monique Dufresne, Natalia Serdobolskaya, & Alexandra Simonenko

(Université Lille 3; Université Paris 7 Diderot; Queen's University; Russian State University for the Humanities/Moscow State University of Education, & FWO/Ghent University)

Many formal semantic and typological studies have addressed the relation between possession and definiteness, where definiteness encompasses uniqueness- and antecedent-based reference resolution or weak and strong definiteness in the sense of Schwarz (2009).

Morphosyntactic and semantic split alignment. From the point of view of morphosyntax, there is a typological split between languages that allow for all kinds of possessive and definiteness markers to cooccur within one and the same DP (1), and those in which there are possessive markers that are in complementary distribution with definiteness markers (2) (for a rich typological survey see Haspelmath 1999).

Russian

(1)   et-a   moj-a   podrug-a
        this-f.sg   my-f.sg friend-nom.sg
        'this (female) friend of mine'

English

(2)   *this/the his friend / [OK] this friend of his

On the semantic side, languages again split in that some have markers of possession that impose an exhaustive quantification on the domain denoted by the possessee nominal (in the sense that the resulting DP is normally taken to denote the totality of individuals with the relevant nominal property related to a given possessor), while other languages do not have such possessives.

   West Germanic prenominal possessors (3), French prenominal possessors, and Hebrew and Arabic construct state possessives (4) (e.g. Heller 2002, Dobrovie-Sorin 2004, Barker 2011) all encode exhaustive quantification. For instance English (3) is felicitous just in case all of Sam's daughters study in Great Britain, not just some of them, and Hebrew (4) in case the teacher has only one house.

English

(3)   Sam's daughters study in Great Britain.

Hebrew

(4)   beyt-ha more
        house-def   teacher
        'The teacher's house' (from Barker 2011)

   In languages and language groups such as Italian, Spanish, Slavic, Finno-Ugric, Austronesian (Chung 2008), there is no possessive configuration with an exhaustivity effect. For example, in (5) and (6) from Russian and Beserman Udmurt (Uralic, Finno-Ugric), respectively, the possessee NP is not implied to denote all of the individuals with the relevant nominal property related to the possessor, but possibly only some of them.

Russian (Slavic)

(5)   nash   petukh
       our   rooster
       'our rooster / one of our roosters'

Beserman Udmurt (Uralic)

(6)   petuk-mə̂
       rooster-poss.1pl
       'our rooster / one of our roosters'

Importantly, we assume that quantification in natural language is contextually restricted to a certain domain (e.g. von Fintel (1994) and much subsequent work). That is, when saying that a marker triggers an exhaustive/non-exhaustive quantification, we assume that any such statement for a given case should be qualified with respect to a contextually established domain over which quantification takes place. For instance, the possessive pronoun in 'my roosters' in English is understood to trigger exhaustive quantification over a certain domain, which is not necessarily equal to the actual world as a whole. This means that the denotation of such DP may well be smaller than the absolute (i.e. with respect to the whole actual world) totality of roosters in speaker's possession. However, *relative to a contextually established domain*, the contribution of the possessor pronoun in English does seem to be such that the DP denotes the totality of roosters possessed by the speaker. This is what we take to make languages such as English differ in the relevant respect from languages such as Beserman Udmurt: in (6) the use of a possessive suffix does not imply that the DP denotes the totality of roosters related to the possessor *even relative to a contextually salient domain*. An utterances such as this one may well be used to refer to two roosters in a context where it has just been stated that the speaker overall has five roosters, an interpretation not compatible with the parallel English example. In what follows, we omit such domain qualifications for the sake of readability; however, it is crucial to bear them in mind when evaluating claims about quantificational properties of possessivity and definiteness markers.

There is evidence for the typological alignment of the morphosyntactic and semantic splits identified above. That is, on the one hand, it is precisely in those cases where possessive markers trigger exhaustive quantification that they are in a complementary distribution with definiteness markers; on the other, languages which do not have exhaustivity-triggering possessives, seem to mark, if at all, specificity (in the sense of Enç (1991); partitive type in terms of von Heusinger 2002) rather than definiteness. The latter clustering of properties is illustrated with (5) and (7) from Russian and (6) and (8) from Beserman Udmurt (Finno-Ugric).

Russian

(7)   et-ot   nash   petukh
       this-m.sg   our   rooster
       'this rooster of ours'

Beserman Udmurt

(8)   So   korka-mə̂   vuž   n'i   val.
       this   house-poss.1pl   old   already   be.pst
       'This house of ours became old'

One of the goals of this workshop is the identification of systematic alignments between the morphosyntactic and semantic splits described above and the exploration of the semantic and/or structural underpinnings of the alignments.

Diachronic transition between the two types of systems. The two types of systems – with article/possessive complementary distribution and exhaustive possessives and with article/possessive cooccurrence and no exhaustive possessives – are not impermeable, however. For instance, Medieval French drifted from a system with the pre-nominal possessives cooccurring with the articles originating from Late Latin distal demonstratives, (9) to a system where the two series of markers are in a complementary distribution, (10) and where the pre-nominal possessives have an exhaustive interpretation, (11).

Medieval French

(9)   la   sue   juvente   fut   honeste e   spiritel.
        def   poss.3sg   youth   was   virtuous   and   spiritual
        'His youth was virtuous and spiritual.' (From *La vie de St. Alexis*, ca. 1050 A.D.)

Modern French

(10)   (*La)   sa   jeunesse   était   très   spirtuelle.
        def   poss.3sg   youth   was   very   spirituality
        'His youth was very spiritual.'

(11)   Mes   amis   ne   viennent   pas   ce   soir.
        poss.1pl friends   neg   come.3pl   neg   this   evening
        'My friends are not coming tonight.' (None of the situationally relevant friends of the speaker are coming.)

Examination and formalization of such diachronic transitions is the second major goal of the meeting.

Finally, a connection seems to emerge between the etymological origins of definiteness/specificity markers and whether their semantics involves exhaustive quantification. As shown in Schroeder (2006), the main diachronic sources of definiteness/specificity markers belong either to the domain of direct anaphora (demonstratives, personal pronouns) or to the domain of elements expressing associative relations (which includes possessive markers).

(i)   Demonstratives, which are commonly assumed to imply the relation of identity with a discourse or deictic antecedent, historically give rise to the definite articles (see, e.g., De Mulder and Carlier 2011). Within the Russellian/Fregean approach, these articles are taken to trigger an exhaustive quantification over the nominal domain (modulo the relevant domain restrictions). This is, for instance, the case for the West Germanic articles.

(ii)   Non-exhaustive possessives typically give rise to reference markers not triggering an exhaustive quantification (Schroeder 2006). This case can be illustrated with the 3rd person singular suffixes used in non-possessive contexts in a number of Finno-Ugric languages (see Am-David (2014) for an overview). This is also the case for the specificity markers in some Ethiopian languages and Indonesian (Rubin 2010), which have also developed from possessives and which likewise do not trigger an exhaustive quantification.

However, etymology does not categorically determine the presence/absence of the exhaustivity component and a non-exhaustive configuration may develop into an exhaustive one. For instance, Khanty (Uralic) has developed an antecedent identity-based definiteness marker from a third person possessive marker.

Goals of the workshop. Taking as its core business the relation between possession, reference, and exhaustivity, the workshop focusses on answering the following questions:

- How much typological evidence is there for the alignment between (non-)cooccurrence of definiteness and possessive markers and possessor (non-)exhaustivity?
- What are the possible semantic explanations of the ban on possessive and definiteness markers' cooccurrence in light of the alignment of the morphosyntactic and semantic splits in question?
- What is the inventory of syntactico-semantic elements that would allow us to account for the independence of the exhaustivity quantification and possessive relation cross-linguistically?
- What are the possible inventories of possessive constructions in languages in terms of (non-)exhausivity?
- How much diachronic evidence is there for the passage from non-exhaustive to exhaustive possessive configurations?
- How can such transitions be formally modeled?
- How can we formally model the evolutionary developments leading from the direct anaphora and possession markers to the definiteness and specificity (partitivity) markers respectively?
- Does quantifier domain restriction happen the same way in the case of definiteness and possessivity markers?

The workshop is aimed at bringing together specialists working on the formal (synchronic and diachronic) representations of the structure and the semantics of the DP and the scholars engaged in the data-driven research on particular languages featuring any of the phenomena above.

References

Am-David, Assif. 2014. *The distribution of definiteness markers across languages – a semantic typology*. Saarbrücken: Lambert.

Barker, Chris. 1998. Partitives, double genitives, and anti-uniqueness. In *Natural Language and Linguistic Theory* 16, pp. 679–717.

Barker, Chris. 2011. Possessives and relational nouns. *Semantics: An international handbook of natural language meaning*, *2*, pp.1109–1130.

Chung, Sandra. 2008. Possessors and Definiteness Effects in Two Austronesian Languages. In *Quantification: A Cross-linguistic Perspective.* Ed. by Lisa Matthewson. North-Holland Linguistic Series 64. Bingley, UK: Emerald, pp. 179–224.

Dobrovie-Sorin, Carmen. 2004. Genitives and determiners. In *Possessive and beyond: Semantics and Syntax.* Ed. by Kim et al., pp. 115–132.

Dobrovie-Sorin, Carmen, Giurgea, Ion, Farkas, Donka. 2013. Introduction: Nominal features and nominal projections. In *The reference grammar of Romanian*. Vol.1: The Noun Phrase. John Benjamins, 2013.

Elbourne, Paul. 2008. Demonstratives as individual concepts. *Linguistics and Philosophy*, 31(4), pp. 409–466.

Enç, Mürvet. 1991. The semantics of specificity. *Linguistic inquiry*, pp.1–25.

Farkas, Donka. 2013. The semantics of determiners. In *The reference grammar of Romanian*. Vol.1: The Noun Phrase. John Benjamins, 2013.

von Fintel, Kai. 1994. *Restrictions on Quantifier Domains*. Doctoral Dissertation, University of Massachusetts Amherst.

Haspelmath, Martin. 1999. Explaining article-possessor complementarity: economic motivation in noun phrase syntax. *Language* 75(2), 227–243.

Heller, Daphna. 2002. Possession as a lexical relation: evidence from the Hebrew Construct State. In *WCCFL 21 Proceedings*. 2002.

von Heusinger, Klaus. 2002. Specificity and Definiteness in Sentence and Discourse Structure. *Journal of Semantics* 19. 245–274

de Hoop, Helen. 1997. A semantic reanalysis of the partitive constraint. In *Lingua*, 103, pp. 151–174.

de Mulder, Walter, and Anne Carlier. 2011. Definite Articles. In *The Oxford Handbook of Grammaticalization*, ed. Heine Bernd and Narrog Heiko, 522–34. Oxford: Oxford University Press.

Rubin, Aaron. 2010. The development of the Amharic Definite Article and an Indonesian Parellel. In *Journal of Semitic Studies* LV/1, Spring 2010, pp. 103–114.

Schroeder, Christoph. 2006. Article systems in some areas of Europe. In *Pragmatic organization of discourse in the languages of Europe* (Eurotyp 20-8). Ed. by G. Bossong, B. Comrie. Berlin, New York: Mouton de Gruyter.

Storto, Gianluca. 2000. On the Structure of Indefinite Possessives. In *Proceedings of Semantics and Linguistics Theory X*. Ed. by B. Jackson, T. Matthews. Ithaca, NY: CLC Publications, Cornell University. 2000.

Schwarz, Florian. 2009. *Two types of definites in natural language*. Doctoral Dissertation, University of Massachusetts Amherst.

Chris Barker
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Hungarian possessors are definitely different

Tibor Laczkó
(University of Debrecen)

1. The basic facts

1) Hungarian possessive DPs have dative or nominative possessors: (1a-c).
2) The possessum agrees with the possessor: (1a-d), and possessor pro-drop is possible (typical): (1d).
3) When the possessor is a nominative pronoun, the definite article must be present: (1d).
4) When the (nominative) possessor is a non-pronominal DP (whether definite or indefinite), the definite article must not be present in standard Hungarian, but the interpretation of the possessive DP is always definite: (1a). There is also a dialectal variant: when the possessor is expressed by a personal name, the definite article must be present in the possessive DP: (1b).
5) The (always dative-marked) possessor can occur externally to the possessive DP. In such cases, when the possessed DP does not contain the definite article, the interpretation of the possessed DP is indefinite as a rule, see (2).

(1) a. *Kati   toll-a*
         Kate.nom   pen-her
     b. *a   Kati   toll-a*
         the Kate.nom   pen-her
         '(*the) Kate's pen'

     c. *Kati-nak   a   toll-a*
         Kate-dat   the pen-her
         '(*the) Kate's (*the) pen'

     d. *a   (te)   toll-ad*
         the you   pen-your
         '(*the) your pen'

(2) *Kati-nak*   *olvas-t-**ál***   *vers-é-t?*
     Kate-dat   read-past-**2sg.indef**   poem-her-acc
     'Did you read one / several poem(s) by Kate?'

2. Fundamental issues in the context of the themes of the workshop

1) Hungarian spectacularly defies the generalization that the complementarity of possessive markers and definiteness markers and exhaustive quantification are typically aligned across languages. This is definitely violated in Hungarian in the case of pronominal (nominative) possessors in standard Hungarian.

2) In the case of pro-dropped possessors in standard Hungarian, and in the case of personal noun possessors in two dialects of Hungarian, we find that there is variation within the same language in this respect.

3. The crucial aspects of my analysis

1) My theory-neutral assumptions about these Hungarian facts:

   a. Given that (i) pro-drop is possible and (ii) a possessive DP without an overt (possessive-DP-internal) possessor and without the definite article can be interpreted indefinitely (non-exhaustively), the occurrence of the definite article is important for making the interpretation of the possessive DP unambiguously definite.

   b. The fact that the default form of a possessor is nominative (just like that of a subject) can be taken to partially motivate the use of the definite article in possessive DPs as the indicator of the left edge of this DP, thereby making the identification of the (nominative) possessor easier.

   c. I agree with Haspelmath (1999) that the complementarity of the definite article and the possessor in possessive DPs is fundamentally motivated by economy factors.

2) I will present an analysis of the relevant facts in the framework of Lexical-Functional Grammar (LFG), in comparison with GB/MP analyses like Szabolcsi (1994) and É. Kiss (2014). In particular, I will argue that in LFG Haspelmath's (1999) economy principle can be naturally captured by simply assuming that the definiteness feature is non-unifiable, which means that it can be encoded by either the definite article or a possessor, but not by both of them simultaneously.

References

É. Kiss, Katalin. 2014. Ways of licensing Hungarian external possessors. *Acta Linguistica Hungarica* 61: 45-68.

Haspelmath, Martin. 1999. Explaining article-possessor complementarity: economic motivation in noun phrase syntax. *Language* 75(2): 227-243.

Szabolcsi, Anna. 1994. The noun phrase. *The Syntactic Structure of Hungarian. Syntax and Semantics* 27, ed. by Ferenc Kiefer and Katalin É. Kiss. New York: Academic Press, 179-274.

The fifth element: The associative-situational use in referential marking

Barbara Egedi

(Research Institute for Linguistics, Hungarian Academy of Sciences)

The aim of this paper is to introduce a new component into the study of grammatical marking of referential identification. Discourse referents can be identified through four different strategies, as has been claimed *inter alia* by Himmelmann (1997, 2001), and Lyons (1999), principally based on Hawkins (1978). These strategies are (i) anaphoric use, (ii) associative-anaphoric use, (iii) situational use, and (iv) larger situational use.

This model has been successfully adopted to account for the distribution and early use of the Old Hungarian definite article, although failed to show whether demonstratives used in direct situational contexts can already be analyzed as definite articles. Another research question concerns Uralic languages in which referential anchoring by possessive personal suffixes (Px) is an available grammatical device. It has been observed that the distribution of non-possessive Px-s is not identical in the individual languages. Moreover, some of the well attested uses of Px have not been satisfactorily explained:

(1)   *Guždor   vylin turyn-ez   čeber* [Udmurt]
        field   on   **grass-3sg**   beautiful
        'In the field, **the grass** is beautiful.'
        (grammatical if the referent is available for direct sensory perception, cf. Nikolaeva 2003. For similar examples in Nenets, see Nikolaeva 2014)

This paper proposes to consider an additional, fifth context, in which reference is usually encoded in grammar, but the strategy of identification differs from those mentioned above: in *associative-situational use*, the referent of the noun phrase is identified through association, as in the case of associative-anaphoric use, but its referential anchor is not present in the preceding discourse. It is rather directly accessible in the speech situation by the presence of the interlocutors, who typically, although not exclusively, appear as grammatical possessors. Less frequently, the anchor might be some other entity which is also accessible (e.g. visible) in the situation. Considering this fifth use of referential identification allows us to develop a more fine-grained approach both from a diachronic and from a comparative perspective. One of the claims of this talk is that more sub-stages have to be distinguished within the life of a grammaticalized Stage I article (2).

(2)   Grammaticalization paths of the definite article
        Stage I/A: anaphoric use > associative-anaphoric use
        Stage I/B: situational use > *associative-situational use* > larger situational use

In order to decide whether ambiguous Old Hungarian texts belong to Stage I/A or Stage I/B in this respect, the context to be tested is the associative-situational context (3). In this context, the use of demonstratives are not felicitous; consequently, the determiner that appears will be analyzed as a definite article.

(3)   *How is the dog?*
        (Intended reference: *the dog* not present in the situation, but belonging to the addressee)

The other claim is that examples, such as (1), represent the associative-situational use of Px-determination. Furthermore, the differences between Uralic languages can be accounted for by positioning each variety either in Stage I/A or in Stage I/B in the grammaticalization path (4), which is a mirror image of the one schematized for definite articles in (2).

(4)   Grammaticalization paths of the Px-determination

Stage I/A: associative-anaphoric use > anaphoric use
Stage I/B: *associative-situational use* > situational use > larger situational use

References

Hawkins, J. A. 1978. *Definiteness and indefiniteness.* London: Croom Helm.

Himmelmann, N. P. 1997. *Deiktion, Artikel, Nominalphrase: zur Emergenz syntaktischer Struktur.* Tübinger: Niemayer.

Himmelmann, N. P. 2001. Articles. In: Haspelmath M. et al. (eds.): *Language Typology and Language Universals.* HSK 20.1. Berlin – New York: Walter de Gruyter. 831-841.

Lyons, Ch. 1999. *Definiteness.* Cambridge: Cambridge University Press.

Nikolaeva, I. 2003. Possessive affixes as markers of information structuring: Evidence from Uralic. In: Suihkonen, P. – B. Comrie (eds.): *International Symposium on Deictic Systems and Quantification in Languages Spoken in Europe and North and Central Asia.* Izhevsk: Udmurt State University; Leipzig: Max Planck Institute of Evolutionary Anthropology, 130-145.

Nikolaeva, I. 2014. *A Grammar of Tundra Nenets.* Berlin: Mouton de Gruyter.

Bridging reference in a diachronic perspective. The case of North Germanic

Dominika Skrzypek
(Adam Mickiewicz university, Poznań)

In diachronic studies it has been a long tradition to view the development of articles, both definite and indefinite, separately, therefore failing to notice how the grammaticalization of one item may influence the scope of use of other, related items. Studies in the definite descriptions dedicated to weak and strong definites (e.g. Schwarz 2013), as well as earlier studies into interchangeability of definite articles and possessive pronouns or demonstratives (Löbner 1985), show that the definite forms should not be regarded in isolation but rather against other forms, such as possessive and demonstrative pronouns and bare nouns.

One context of particular interest, where different exponents compete, is the so-called bridging anaphora (associative anaphora). In diachronic studies of definiteness it is singled out as the critical context (in the meaning of Heine 2002) for the grammaticalization of the definite article (e.g. de Mulder & Carlier 2011, Skrzypek 2012). In synchronic studies it is often pointed out that this context disallows demonstratives while admitting possessives (e.g. Fraurud 2000). Diachronically, bridging contexts show a variation between possessives, bare nouns and incipient articles.

North Germanic languages, today's continental Danish, Norwegian and Swedish and insular Faroese and Icelandic, have all developed definite articles some time between 800 and 1350 (Skrzypek 2012). In the oldest extants texts the grammaticalization of the definite article is well underway though not yet complete and there is a great variation in the expressions of the bridging reference. For a time, with the progressing obligatorification of the incipient article, the frequency of the possessives seems to rise rapidly, to fall to today's frequencies only after the definite article is established in these contexts.

The aim of the present paper is to document the expressions of bridging anaphor in a corpus of Old Swedish, Old Danish, Old Norwegian and Old Icelandic texts spanning ca 250 years (1200-1450), a period of development of the definite article in North Germanic. A more fine-grained picture of bridging reference will be presented, based among others on typologies proposed in Schwarz 2000 and

Ariel 2014, to show that the incipient article occurs in certain types of bridging reference first while others are either unmarked (bare nouns) or show a preference for possessives. The paper aims further to give strength to arguments for a more holistic approach to the study of definiteness, studying the system of expressions in its entirety rather than the developments of individual expressions.

References

Ariel, M. 2014. *Accessing Noun Phrase Antecedents*. London: Routledge

Fraurud, K. 2000. Possessives with extensive use: a source of definite articles? In: Irène Baron, Michael Herslund and Finn Sørensen (eds.). *Dimensions of Possession*. Amsterdam: John Benjamins,

Heine, B. 2002. On the role of context in grammaticalization. In: Wischer, Ilse and Gabriele Diewald (eds) 2000. New Reflections on Grammaticalization. Amsterdam/Philadelphia: John Benjamins, 83-101.

Löbner, S. 1985. Definites. *Journal of Semantics* 4: 279-326.

De Mulder, W. and A. Carlier. 2011. The grammaticalization of definite articles. In: Narrog, Heike and Bernd Heine (eds.) *The Oxford Handbook of Grammaticalization*. Oxford: OUP, p. 522-534.

Schwarz, F. 2013. Two kinds of definitenes cross-linguistically. *Language and Linguistics Compass* 7/10, 534-559.

Schwarz, M. 2000. *Indirekte Anaphern in Texten. Studien zur domanengebundenen Referenz und Koharenz im Deutschen.* Tübingen: Niemeyer

Skrzypek, D. 2012. *Grammaticalization of (in)definiteness in Swedish*. Poznań.

Looking for a D-layer in Moksha

Svetlana Toldova & Anna Volkova
(National Research University Higher School of Economics)

The universality of the D-layer is a subject of a long-standing debate. Some authors argue that the presence of a D-layer is necessary for a nominal projection to qualify as an argument. Hence, when it comes to articleless languages, these too must project a D-layer (e.g. Longobardi 1994, Progovac 1998). Others (e.g. Chierchia 1998, Bošković' 2005, 2008) argue for the presence of a global parameter: some languages lack a D-projection, but nevertheless their nominal projections qualify as arguments; hence in these languages D is not necessary for argument–hood. Yet other authors argue against the existence of such a global parameter. For instance, Pereltsvaig (2007, 2013), Gillon & Armoskaite (2015) argue that in Russian and Lithuanian respectively bare nouns can project either NP or DP structures, but may qualify as arguments under either option. A drawback in their analysis is that in Russian and Lithuanian the evidence for DP-vs.NP-hood is rather indirect. In this paper we explore the structure of the nominal complex in another articleless language, namely Moksha (Uralic), which provides more direct evidence. Moksha expresses definiteness by means of a definite declension, which has morphological marking only in three cases (out of fourteen possible) – Nominative, Genitive and Dative. Moksha also employs two other types of declension – the default and the possessive one. Moksha displays a mixed behaviour wrt Bošković's generalizations (Bošković' 2005, 2008). It behaves as an NP language wrt adjunct extraction_(1) and exhaustivity of possessives_(2).

(1)   Kodama   oš-stə Pet'a   vas'-ft-s'   st'ər'?
       which city-el Peter   meet-caus-pst.3 girl
       lit. From which city Peter met the girl?

(2)   Pet'a-n'kolma it'-ənzə kud'-sə-t,   a   n'il'əcəs'   ul'ca-sə
       Peter-gen   three   children-3sg.poss.pl   house-iness-2sg.poss   a   fourth.one
       улица-in
       lit. Peter's three children are at home, and the fourth (one is) outside.

At the same time, just like DP languages, Moksha disallows left branch extraction, LBE (3) and allows two nominal genitive arguments (4).

(4)   *Tɛ   Ivan   rama-z'e   mašina-t'.
       this   Ivan   buy-pst.3sg.s.3sg.o   cat-def.sg.gen
       Int.: Ivan bought this car.

(5)   Ivan   kulχtsond-si   al'az'e-n'   kniga-n'   luv-əma-nc.
       Ivan   listen-npst.3sg.s.3sg.o father-gen   book-gen   read-nzr-3sg.poss.sg.gen
       Ivan listens to his father's reading of the book.

It should be noted, however, in connection with_(4), that Moksha is a language with differential object marking. If the DO is a topic of the sentence, it gets genitive marking of the definite_(4) or possessive_(3) declension; if not, it can stay unmarked. Overt marking on the DO triggers subject-object agreement on the verb, while in case of unmarked DO the verb agrees only with the subject. Only in the latter case, is LBE possible_(5).

(5)   Pitn'i Ivan   rama-s' mashina.
       beautiful   Ivan   buy-pst.3-sg   car
       Ivan bought a beautiful car.

The correlation between definiteness of interpretation, the presence of a specific encoding on the verbal inflection and the impossibility of LBE indicates the presence of a D-layer in these cases. Conversely, however, also in the absence of DOM, nominal projections in Moksha fully qualify as arguments. I conclude that Moksha presents further evidence in favour of the view that in addition to DP, also smaller nominal projections can qualify as arguments.

Enclitic possessive constructions in the dialect of Verzino

Eugenia Greco
(Goethe-University Frankfurt)

In this work, I focus on the internal structure of the DP of kinship nouns and in particular, on the way the relational possessor is realized in the upper part of the DP. I will claim that the presence or absence of the determiner in possessed kinship NPs is due to the fact that the possessive itself moves to the D position, thus preventing the realization of the article.
The empirical domain I analyze is the dialect of Verzino (Calabria, Italy) which displays an interesting alternation between strong and enclitic possessives: example (1a) illustrates the unmarked structure

with strong possessives for most Southern Italian dialects and (1b) the corresponding structure in Standard Italian, where the determiner can only be omitted with kinship nouns if the possessive occurs prenominally.

(1)   a. **u** tsiɔ **miɔ**/**tuɔ**/**suɔ**   'the uncle my/your/his/her'   (Verzino)
        b. **mio**/**tuo**/**suo** zio   'my/your/his/her uncle'   (Standard It.)

One might conclude that Verzinese needs the lexicalization of the determiner and lacks possessive movement that takes place in Standard Italian. But note that in contrast to Standard Italian, Verzinese also allows enclitic possessives for first and second person singular and third person singular/plural. Furthermore, the enclitic possessives of first and second person singular are in complementary distribution with the determiner (2a), whereas the enclitic possessive of third person singular/plural must co-occur with the determiner (2b).

(2)   a. tsiə**ma**, tsiə**ta**   'uncle-my/-your'   (Verzino)
        b. **u** tsiə**sɔ**   'the uncle-his/her/their'

I will show that the distinction between first and second person on the one hand and third person on the other is due to the necessity of deictic possessives to be bound by the speaker´s coordinates located in the left periphery of the clause (see Giorgi 2010). This distinction has consequences on the way the movements internal to the DP have to be analyzed. Longobardi (1996) claims that kinship nouns are similar to proper names and can occupy D° and the possessive raises to Spec-DP (see the unmarked structure Poss-N in Standard Italian (1b)). Along these lines, I argue that the enclitic possessives of first and second person first attract the N to Poss° and then raises from Poss° to D°, while the Spec-D position remains empty (3a). In third person enclitic possessive constructions the determiner occupies D°, while the head noun and the EP are on the lower head Poss° (3b), since third person possessives do not need to be bound by the speaker´s coordinate and can remain lower in the structure.

(3)   a. [DP [D° **tsiə-ta**] [PossP [Poss° tsiə-ta] [NP [N° tsiə]]]]
        b. [DP [D° **a**] [PossP [Poss° **tsiə-sa**] [NP [N° tsiə]]]]

In the talk, I will provide empirical arguments for this analysis (see (3)) and discuss the structural differences of the (non)-occurrence of the determiner and the (enclitic) possessives.

References
Giorgi, A. 2010: *About the Speaker: Towards a Syntax of Indexicality*, Oxford Studies in Theoretical Linguistics, Oxford, Oxford University Press.
Longobardi, G. 1996: The Syntax of N-raising: a minimalist theory, *OTS Working Papers* 96-005: 1-55.

Turkish partitive constructions and exhaustivitiy

Klaus von Heusinger & Jaklin Kornfilt
(University of Cologne & Syracuse University)

Turkish partitive constructions mark the superset with ablative case, while the whole construction can take any argument position in the sentence. If it takes the direct object position, it can be differentially object marked by the suffix *–(y)I*, as in (2) vs. (3). It is often assumed that the case marker in (2) expresses an exhaustive reading, while the lack of case does not. Thus, (2) would express that the speaker ate all the apples contained in the set of fruits, e.g. if the set of fruits contains three apples, (2) expresses that the speaker ate all three apples. (3) would not express such an exhaustive reading, but any number of apples in the set of fruits. However, we argue that exhaustivity in partitive constructions is an implicature and not part of the "literal" meaning. We provide evidence by a pilot study with contexts like (1). The context introduces 8 apples out of which 3 are selected. If partitives with case would have an exhaustive reading, examples like (2) in the given context have to be unacceptable, while sentences (3) in the same context should by acceptable. We tested this with three comparable examples with supersets that had a cardinality of the critical item clearly higher then the numeral in the subset of the partitive construction. We asked 10 native Turkish speakers (ages 26 to 36) to rate the sentences with and without accusative case marking in the given context on a scale from 1 (unacceptable) to 7 (very good). Sentences with case were rated with 4,1, sentences without case with 4,3. This pilot study confirms our intuition: There is no exhaustivity condition on case-marked partitives. The final paper will provide a broader acceptability study to confirm the results of the pilot study.

(1)   Context: My mother always fills a big bowl with different pieces of apples, pears, and bananas. Yesterday evening I was intensively studying the different pieces of fruit, which were 8 apples, 10 pears and 4 bananas, and then…

(2)	meyve-ler-den	üç	elma-yı	ye-di-m.
	fruit-pl-abl	three	apple-acc	eat-pst-1.sg
	'I ate three apples of the (set of) fruits.'			
(3)	meyve-ler-den	üç	elma-	ye-di-m.
	fruit-pl-abl	three	apple	eat-pst-1.sg
	'I ate three apples of the (set of) fruits.'			

References

Barker, Chris. 1998. Partitives, double genitives and anti-uniqueness. *Natural Language and Linguistic Theory* 16(4). 679–717.

Chierchia, Gennaro. 1997. Partitives, reference to kinds and semantic variation. In Aaron Lawson (ed.), *Proceedings from Semantics and Linguistic Theory VII*, 73–98. Ithaca: Cornell University.

Göksel, Aslı & Celia Kerslake. 2005. *Turkish: A comprehensive grammar*. London: Routledge.

Hoeksema, Jacob. 1996. *Partitives: Studies on the syntax and semantics of partitive and related constructions*. Berlin/New York: de Gruyter.

Kornfilt, Jaklin. 1997. *Turkish*. London: Routledge.

Kornfilt, Jaklin & Klaus von Heusinger. 2009. Specifity and partitivity in some Altaic languages. In Ryoskuke Shibagaki & Reiko Vermeulen (eds.), *Proceedings of the 5th workshop on Formal Altaic Linguistics (WAFL 5) (*vol. 58 MIT Working Papers in Linguistics), 19–40. Cambridge, MA: MIT Department of Linguistics and Philosophy.

Zamparelli, Roberto. 1998. A theory of kinds, partitives, and *of/z* possessives. In Alexiadou, Artemis & Chris Wilder (eds.), *Possessors, predicates and movement in the determiner phrase*, 259—301. Amsterdam: Benjamins.

A typology of possession in Tungusic

Andreas Hölzl

(Ludwig-Maximilians-Universität München)

The paper gives a concise overview and classification of the category of possession in the Tungusic language family, which consists of about 20 languages spoken in Siberia and northern China. The data are drawn from published sources written in Chinese, English, German, Japanese, and Russian.

Possession is a universal category, but is expressed differently from language to language (e.g., Heine 1997). A basic distinction within the typology of possession may be drawn between attributive (e.g., *her horse*) and predicative possession (e.g., *she has a horse*). For the latter, some Tungusic languages have a special suffix attached to the possessed item such as *-lu* in Uilta.

Uilta (Tsumagari 2009: 13)

(1) *bi* *ilaan-ji* *ulaa-**lu**-bi.*
     1sg three-inst reindeer-poss-1sg.poss
     'I have three reindeer.'

However, most Tungusic languages have intransitive locative constructions meaning 'at X is Y' and lack a possessive verb such as English *to have*.

Uilta (Tsumagari 2009: 13)

(2) *min-**du*** *ilaa* *ulaa* ***bii**-ci.*
     1sg.obl-dat three reindeer cop.prs-3pl
     'I have three reindeer.'

Within attributive possession, a second distinction can be made between head marking (possessive markers) and dependent marking (genitive) (Nichols 1986). Most Tungusic languages belong to either the one or the other type and only a few languages such as Oroqen combine both types.

Oroqen (Chao Ke 2007: 146)

(3) *oroon-**i*** *ullə-**nin***
     reindeer-gen meat-3sg.poss
     'reindeer meat'

A special distinction found in many but not all languages is between alienable and inalienable possession, which combines with other possessive markers.

Even (Benzing 1955: 53)

(4) a) *mi.n* *del-u*
         1sg.gen head-1sg.poss
         'my head'
     b) *mi.n* *del-**aŋ**-u*
         1sg.gen head-alien-1sg.poss
         'my head (i.e. of an animal which I killed and cut off)'

The exact boundary between these two categories is difficult to locate and varies from language to language.

These isolated examples suffice to illustrate that Tungusic languages exhibit several typologically interesting patterns that deserve further attention. After a review of previous work on the typology of

possession in Tungusic and a description of the underlying typology, the paper gives a concise but exhaustive inventory and classification of possessive constructions in all Tungusic languages. For the purpose of clarity, the typology will be supplemented with geographical maps inspired by the *World Atlas of Language Structures* (e.g., Stassen 2013). Based on this mostly synchronic overview, some implications for both the reconstruction of Proto-Tungusic possessive constructions as well as for the typology of possession will be presented.

References

Benzing, Johannes. 1955. *Lamutische Grammatik. Mit Bibliographie, Sprachproben und Glossar*. Wiesbaden: Harrassowitz.

Chao Ke 朝克. 2007. *Nanmu elunchunyu yanjiu* 楠木鄂伦春语研究. Peking: Minzu chubanshe.

Heine, Bernd. 1997 *Possession. Cognitive sources, forces, and grammaticalization*. Cambridge: Cambridge University Press.

Nichols, Johanna. 1986. Head-marking and dependent-marking grammar. *Language* 62(1) 56–119.

Stassen, Leon. 2013. Predicative possession. In Matthew S. Dryer & Martin Haspelmath (eds.) *The World Atlas of Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. (Available online at http://wals.info/chapter/117, Accessed on 2017-01-03.)

Tsumagari Toshiro. 2009. Grammatical outline of Uilta (revised). *Journal of the Graduate School of Letters* 4. 1–21.

With or without articles? Contrasting determiners in Estonian and Finnish

Helen Hint, Tiina Nahkola, & Renate Pajusalu
(University of Tartu)

Estonian and Finnish as Finno-Ugric languages are described as lacking grammatical articles (e.g. Dryer 2013a, 2013b). Nevertheless, Estonian and Finnish employ means for expressing the (in)definiteness of the noun phrase (NP) in the ongoing speech situation. One common way for signalling the (in)definiteness of an NP is using different pronouns as determiners. Typological studies indicate that demonstrative pronouns may grammaticalize into definite articles (Diessel 1999). Indefinite articles often share their form with the numeral „one" or are derived from that (Lyons 1999) These tendencies are also present in Estonian and Finnish. Laury (1997) claims that in spoken Finnish the definite article has grammaticalized from the demonstrative pronoun *se* 'it'. In Estonian, demonstrative pronoun *see* 'this' and indefinite determiner *üks* 'one' show signs of grammaticalizig into articles (Pajusalu 2009). As the two languages are genetically and typologically similar, analogous development of article-like determiners might be expected. However, their pronominal systems differ significantly, e.g. Estonian has two demonstrative pronouns (*see* 'this', *too* 'that'), Finnish has three (*se* 'it', *tämä* 'this', *tuo* 'that'). Therefore, the uses and functions of Estonian *see*NP and Finnish *se*NP are not identical. Moreover, the similarities and differences of other determiners, e.g. indefinite est *üks*NP/fin *yksi*NP or est possessive pronoun *oma*/fin possessive suffix, are not clear. A contrastive study about determiners in Estonian and Finnish older literary texts has been conducted (Nordlund et al. 2013). However, there are no studies comparing Estonian and Finnish determiners in present-day language. This presentation aims to fill this gap by answering the following questions:

i) Are determiners and possessives as markers of (in)definiteness used similarly and to the same extent in narrative contexts in Estonian and Finnish?
ii) Are articles indeed grammaticalizing in these languages?

We compare three determiner stems: i) phonologically and functionally similar numeral 'one' as indefinite determiner (est *üks*/fin *yksi*); ii) phonologically similar, functionally different definite determiners (est *see*/fin *se*); iii) phonologically different, functionally similar possessives (est *oma*/fin possessive suffix).

For collecting solidly comparable data we used a picture-sequence based narrative elicitation method. Native speakers of Estonian (n=20) and Finnish (n=20) saw three story-books, 6 pictures per book. Participants were asked to tell a story about each book to someone not present at that moment to avoid text-external reference.

Preliminary results suggest that the overall usage of NPs with a determiner (detNP) is similar in elicited narratives – 14% in Estonian and 12% in Finnish out of all referential NP's. However, significant differences arise regarding particular devices. E.g., out of all Estonian detNP's, 51% are *see*NP's, while in Finnish 23% are *se*NP's. Estonian indefinite *üks*NP's are frequent (23% out of all detNP's), while in Finnish *yksi*NP's are rare (4%). The occurrence rates of possessive forms are more alike– 16% in Estonian and 14% in Finnish. The results of a tree & forest analysis (e.g. Janda 2013) indicate that while Estonian and Finnish definite and indefinite determiners look similar at first glance, there are noteworthy dissimilarities to consider. Furthermore, the usage frequency of determiners is modest in our data, and the process of grammaticalizing articles is only in initial stages in both languages.

References

Diessel, Holger (1999). *Demonstratives: Form, Function, and Grammaticalization*. John Benjamins Publishing Company.

Dryer, Matthew S. (2013a). Definite Articles. In M. S. Dryer & M. Haspelmath (Eds.), *The World Atlas of Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. Retrieved from http://wals.info/chapter/37

Dryer, Matthew S. (2013b). Indefinite articles. In M. S. Dryer & M. Haspelmath (Eds.), *The World Atlas of Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. Retrieved from http://wals.info/chapter/38

Janda, Laura A. (2013). Quantitative Methods in Cognitive Linguistics: An introduction. In L. A. Janda (Ed.), *Cognitive linguistics: The quantitative turn. The essential reader* (pp. 1–32). Berlin/Boston: De Gruyter Mouton.

Laury, Ritva (1997). *Demonstratives in interaction: the emergence of a definite article in Finnish*. Amsterdam: John Benjamins Publishing Company.

Lyons, Christopher (1999). *Definiteness*. Cambridge: Cambridge University Press.

Nordlund, Taru, Laury, Ritva, Pajusalu, Renate & Habicht, Külli (2013). Kielikontaktit, kieliopillistuminen ja kieltenvälinen vertailu. In L. Kolehmainen, M. Miestamo, & T. Nordlund (Eds.), *Kielet toistensa peilissä. Kielten vertailu tutkimusmenetelmänä.* (pp. 251–290). Helsinki: Suomalaisen Kirjallisuuden Seura.

Pajusalu, Renate (2009). Pronouns and reference in Estonian. *Sprachtypologie Und Universalienforschung*, *62*(1/2), 122–139.

The interaction of possessive and definite noun declinations in Moksha[22]

Svetlana Toldova & Polina Pleshak

(National Research University Higher School of Economics & Lomonosov Moscow State University)

This paper is devoted to the possessiveness and definiteness in the Moksha language (Mordvin, Finno-Ugric). There are two sets of markers possible on a noun: the definite markers and possessive markers (these are cumulative markers for case encoding as well), they form the definite and possessive declensions respectively (Kolyadenkov (ed.), 1962). These two sets of affixes are incompatible (1):

> *s't'ər'-n'ɛ-t'*   *kukla-**c-(*s')**/*   **kukla-s'*
> girl-dim-def.sg.gen   doll-3sg.poss.sg-(*def.sg[nom])/   doll-def.sg[nom]
> *ašč-i*   *oza-də*   *tabur'etka-**t'-(*ənc)***   *lank-sə*
> be.situated-npst.3sg   sit-conv.pos   chair-def.sg.gen-(*3sg.poss.sg.gen)   on-in
> 'The doll of the girl's is sitting on the chair'.

In our research, we examine the syntactic and semantic properties of the possessive vs. definiteness affixes, their difference and the rules of their interaction. We argue that both sets have non-exhaustive interpretation (cf. Abbott, 2014). They can denote an indefinite referent within a predefined set of referents (2) (cf. partitive specificity, (Enç, 1991):

> *mon'-d'əjə-n*   *sa-s'-t'*   *kolmə*   *mon'*   *učən'ik-ən'ə*
> I.obl-pron.dat-1sg.poss come-pst.3-pl   three   my   student-1.sg.poss.pl[nom]
> 'Three students of mine have come to me'. (I only have three / I have more than three)

However, they differ in their interpretation within the distributional quantifiers' domain. Thus, the definite DPs have only specific and, thus, wide scope reading (3a). Possessives can have bound reading (3b):

> *morkš-t'*   *lank-sə aščə-s'-t'*   *maŗ'-t'*   *i*   *gruša-t.*
> table-def.sg.gen   on-in lay-pst.3sg-pl   apple-pl   and   pear-pl
> 'There are apples and pears on the table'.
> *a. ɛr'*   *s't'ər'-n'ɛ-s'*   *s'ɛv-əz'ə*   ***mar'-t'***
> every   girl-dim-def.sg[nom]   take-pst.3sg.o.3sg.s   apple-def.sg.gen
> 'Every girl took the apple (all the girls took one and the same particular apple).'
> *b. ɛr'*   *s't'ər'-n'ɛ-s'*   *s'ɛv-əz'ə*   ***mar'-ənc***
> every   girl-dim-def.sg[nom]   take-pst.3sg.o.3sg.s   apple-3sg.poss.sg.gen
> 'Every girl took her apple (a different apple for each girl).'

Thus, the 'definite' marker specificity (cf. familiarity, discourse-linking (Pesetsky (1987)) and not with uniqueness.

    A possessor or a "definiteness" trigger such as demonstratives can occur overtly within a DP. A demonstrative is only compatible with definite suffixes while possessor DPs with possessive ones. Moreover, possessors and demonstratives can co-occur:

> *t'ɛ*   *mon'/*   *mon'*   *t'ɛ*   *tabur'etka-z'ə*   *s'a-də*   *od,*   *čem*   *tona-s'*

---

this my/   my   this   chair-1sg.poss[nom]   that-abl new   than   that-def.sg[nom]
'This chair of mine is newer than that one'.

However, whenever both a demonstrative and an overt possessor DP are present, only a possessive affix is possible, as in (4). Thus, possessivity marking overrides definiteness marking in Moksha.

To sum up, the main definiteness semantic property in Moksha is the familiarity (specificity, (the discourse linking of a referent in the context) but not uniqueness while the possessive affix triggers relation between two DPs. Both have non-exhaustive interpretation.

The case of Moksha shows that a language can have mutually exclusive definiteness and possessivity markers while neither imposes an exhaustive interpretation, meaning that typologically exhaustivity cannot be the only reason for the complementary distribution of the two types of markers.

References

Abbott, Barbara. "The indefiniteness of definiteness." Frames and Concept Types. Springer International Publishing, 2014. 323-341.

Enç, M. (1991). The semantics of specificity. Linguistic inquiry, 1-25.

Kolyadenkov, M.N. Grammatika mordovskih (mokshanskogo I erzyanskogo). Ch.1 Fonetika I morphologiya. [Grammar of the Mordvin (Moksha and Erzya) Languages. Part 1. Phoetics and Morphology] – Sransk, 1962.

Pesetsky D 1987 'Wh-in-situ: Movement and unselective binding' in EJ Reuland & AGB ter Meulen (eds) The representation of (in)definiteness MIT Press Cambridge, Mass.: 98- 129.

Relating definiteness and exhaustivity to possession in an endangered Indigenous language of Australia

Christina Ringel
(University of Cologne)

Miriwoong is a severely endangered non-Pama-Nyungan language of the Jarrakan family spoken in the Kununurra area in Western Australia and across the border with the Northern Territory. Possession in Miriwoong can be expressed in various ways. Apart from the usual suspects such as possessive pronouns and juxtaposition, the language employs devices that are also used elsewhere in the grammar such as indirect object enclitics and benefactive pronoun enclitics (Kofod 2009). In addition, there is a specialised morpheme *-ba* used for possession and association and the relational affix *-gang/gany*, which expresses kinship. Finally, Miriwoong makes use of the transitive verb HAVE to express predicative possession.

This presentation will examine in how far these different devices for possessive marking correlate with the concept of definiteness and will discuss whether DPs are interpreted exhaustively. Definiteness or specificity is not marked morphologically within the DP in Miriwoong. No articles are used and there is no number marking on nouns. In attributive possession pronominal demonstratives (Kofod 2015) or an anaphoric discourse marker derived from a third person singular personal pronoun can be used to specify the possessee or the possessor. Both pronominal demonstratives and the discourse marker retain the gender suffix.

This talk will present the interpretation of Miriwoong DPs with respect to exhaustivity within linguistic context and correlate the findings to the expression of definiteness. The data presented was collected during two research trips devoted to the description of possession in Miriwoong within a

dissertation project. Recordings of language tasks and games designed to elicit possessive constructions form the main data source. Seeing that in the Miriwoong community the majority of speakers are L2 learners, picture description and card games among others were deemed appropriate means to both describe and revitalise the language. Data for the linguistic analysis is chosen where possible from the remaining handful of fluent speakers, who are all elderly and mainly female. Moreover the Toolbox corpus, which was established and is regularly updated by Frances Kofod, was consulted.

At the current state of description and analysis of Miriwoong there is no indication that DPs are interpreted non-exhaustively. Thus, Miriwoong seems to confirm the observed correlation between exhaustive quantification and an absence of definiteness markers in possessive NPs. However, exhaustivity is not easily determined in Miriwoong because verbless sentences allow for both exhaustive and non-exhaustive readings, due to the lack of plural marking within the DP. For example, the phrase *garlinga ngayanga [name]* 'son-m-TOP 1sgPOSS-m-TOP [name]' could be interpreted as a plural rather than a singular, i.e. 'my sons'. In an actual utterance the ambiguity is resolved by the absence of a second name. The anaphoric discourse marker mentioned above seems to be developing into a definiteness marker, though. Thus, the language is moving away from the attested pattern.

References

Kofod, Frances. 1978. *The Miriwung Language (East Kimberley): a phonological and morphological study*. Unpublished MA thesis, University of New England.

--- 2009. *Miriwoong Dictionary*. Mirima Dawang Woorlab-gerring Language and Culture Centre, Kununurra (WA).

--- 2015. Miriwoong pronouns. Mirima Dawang Woorlab-gerring. Manuscript.

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WORKSHOP 8

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Ditransitive constructions in germanic languages: Diachronic and synchronic aspects

Timothy Collemann, Melanie Röthlisberger, & Eva Zehentner

(Ghent University KU Leuven; & University of Vienna)

This workshop aims to showcase and bring together empirical (corpus-based and/or experimental) research on ditransitive constructions in Germanic languages and their dialects past and present.

Most basically, ditransitive verbs can be defined as verbs typically involving three semantic roles, namely an agent, a recipient-like argument, and a theme argument (cf. Malchukov et al. 2010: 1). As exemplified in the following sentences, in Germanic languages these verbs typically occur in (or alternate between) nominal and prepositional patterns, although the semantic and syntactic relationship between these patterns is not equally systematic and pervasive in all languages.

(1) English:
- a. *The man* sent **his brother** <u>a book</u>.
- b. *The man* sent <u>a book</u> **to his brother**.

(2) Dutch:
- a. *De man* heeft **zijn broer** <u>een boek</u> gestuurd.
- b. *De man* heeft <u>een boek</u> **aan zijn broer gestuurd**.

(3) German:
- a. *Der Mann* schickte **seinem Bruder** <u>ein Buch</u>.
- b. *Der Mann* schickte <u>ein Buch</u> **(zu) seinem Bruder**.

In English, ditransitives are among the most extensively researched syntactic constructions, with the 'dative alternation' exemplified in (1) having received a great deal of attention in a wide range of theoretical frameworks (see e.g. Green 1974; Barss & Lasnik 1986, Pinker 1989; Goldberg 1995, 2006; Croft 2003; Levin & Rappaport Hovav 2005; Mukherjee 2005; Wolk et al. 2013; Gerwin 2014; Perek 2015). However, even within English, studies have mainly focused on synchronic descriptions of ditransitives, while interest in diachronic aspects of ditransitives has only rather recently been sparked (e.g. Colleman & De Clerck 2011; De Cuypere 2015a; Yáñez-Bouza & Denison 2015). The last decades have also seen a growing interest in ditransitives in other Germanic languages (e.g. Barðdal 2008; Colleman 2009), and in the typology of ditransitives in general (Malchukov et al. 2010).

From a synchronic perspective, two different points of focus have been pervasive regarding research on ditransitives: Some researchers aim at pinpointing the subtle semantic differences between the constructions involved (e.g. Goldberg 1995, 2006; Levin & Rappaport Hovav 2005; Langacker 2008). Other studies have tended to explore and determine the simultaneous influence of language-external and -internal factors that shape the choice between the variants, thereby ignoring or somewhat downplaying semantic factors (e.g. Bresnan and Hay 2008, Wolk et al. 2014). Finally, more formal

studies zoom in on the syntactic relation between the constructions involved (e.g. Ouhalla 1994; Culicover 1997).

From a diachronic perspective, research has mostly concentrated on changes in the available patterns for ditransitive verbs (e.g. the emergence of the prepositional *to*-construction in the history of English), changes in the formal and functional features of the respective constructions (such as the preferred order of objects and the factors influencing it, or the range of verb classes associated with the patterns), as well as the role played by morphological case marking in these developments (e.g. Allen 1995; McFadden 2002; Barðdal et al. 2011; Colleman & De Clerck 2009, 2011; De Cuypere 2015a, 2015b; Zehentner 2016). Investigations into these issues are aimed at providing historical explanations for the synchronic syntactic variation attested in present-day English or other languages.

Despite the broad coverage in the literature, we still know little about the cross-linguistic pervasiveness of ditransitive constructions (be they historical or synchronic), the variability of factors that drive the choice of dative variant, and the cognitive reality of these factors. It is the aim of this panel to tackle and, if possible, bridge these gaps. More specifically, the research questions that this panel would like to address include but are not restricted to:

1) To what extent do language-external factors, such as time, register or region, influence the choice of nominal or prepositional patterns? To what extent do these factors also condition the ordering of constituents in the ditransitive clause, i.e. the order of objects? Do we observe similar patterns of lectal variation in different Germanic languages?

2) How do the diachronic developments of ditransitives in different Germanic languages relate to one another: what differences or similarities can be found, and how can we explain them? What role did language contact and broader developments such as the loss of case marking play in these developments? Also, can we reconstruct the range of ditransitive patterns (and their formal and functional features) in earlier stages of Germanic languages, going back as far as Proto-Germanic?

3) To what extent do cognitive processes (e.g. processing) and language-internal factors offer explanations for regional or historical differences in ditransitives? What effect do psycho-/ neurolinguistic processes such as priming have on language acquisition and the use of ditransitives?

4) How are ditransitives (and alternation relationships) cognitively represented, and are these cognitive representations cross-linguistically robust?

Against this background, we invite abstracts of empirical studies (experimental or corpus-based) related to one or more of the questions above. We especially welcome studies that bring together different theoretical frameworks, research methodologies or languages.

References

Barss, Andrew & Howard Lasnik. 1986. A note on anaphora and double objects. *Linguistic Inquiry* 17, 347-354.

Barðdal, Jóhanna. 2008. *Productivity: Evidence from case and argument structure in Icelandic*. Amsterdam: Benjamins.

Barðdal, Jóhanna, Kristian Kristoffersen & Andreas Sveen. 2011. West Scandinavian ditransitives as a family of constructions: With a special attention to the Norwegian V-REFL-NP construction. *Linguistics* 49(1), 53-104.

Bresnan, Joan & Jennifer Hay. 2008. Gradient grammar: An effect of animacy on the syntax of *give* in New Zealand and American English. *Lingua* 18(2), 245-259.

Colleman, Timothy. 2009. The semantic range of the Dutch double object construction: a collostructional perspective. *Constructions and Frames* 1(2), 190-220.

Colleman, Timothy & Bernard De Clerck. 2009. 'Caused motion'? The semantics of the English *to*-dative and the Dutch *aan*-dative. *Cognitive Linguistics* 20(1), 5-42.

Colleman, Timothy & Bernard De Clerck. 2011. Constructional semantics on the move: On semantic specialization in the English double object construction. *Cognitive Linguistics* 22(1), 183-209.

Croft, William. 2003. Lexical rules vs. constructions: A false dichotomy. In Cuyckens, Hubert, Thomas Berg, René Dirven & Klaus-Uwe Panther (eds). *Motivation in language: Studies in honour of Guenter Radden*. Amsterdam: Benjamins, 49-68.

Culicover, Peter. 1997. *Principles and parameters: An introduction to syntactic theory*. Oxford: Oxford University Press.

De Cuypere, Ludovic. 2015a. A multivariate analysis of the Old English ACC+DAT double object alternation. *Corpus Linguistics and Linguistic Theory* 11(2), 225-254.

De Cuypere, Ludovic. 2015b. The Old English *to*-dative construction. *English Language and Linguistics* 19(1), 1-26.

Gerwin, Johanna. 2014. *Ditransitives in British English dialects*. Berlin: De Gruyter Mouton.

Goldberg, Adele. 1995. *Constructions: A construction grammar approach to argument structure*. Chicago: University of Chicago Press.

Goldberg, Adele. 2006. *Constructions at work: The nature of generalization in language*. Oxford: Oxford University Press.

Green, Georgia. 1974. *Semantics and syntactic regularity*. Bloomington: Indiana University Press.

Langacker, Ronald. 2008. *Cognitive grammar: A basic introduction*. Oxford: Oxford University Press.

Levin, Beth & Malka Rappaport Hovav. 2005. *Argument realization*. Cambridge: Cambridge University Press.

Malchukov, Andrej, Martin Haspelmath & Bernard Comrie. 2010. Ditransitive constructions: A typological overview. In Malchukov, Andrej, Martin Haspelmath & Bernard Comrie (eds). *Studies in ditransitive constructions*. Berlin: De Gruyter Mouton, 1-64.

Mukherjee, Joybrato. 2005. *English ditransitive verbs: Aspects of theory, description and a usage-based model*. Amsterdam: Rodopi.

Ouhalla, Jamal. 1994. *Transformational grammar: From rules to principles and parameters*. London: Edward Arnold.

Perek, Florent. 2015. *Argument structure in usage-based construction grammar: Experimental and corpus-based perspectives*. Amsterdam: Benjamins.

Pinker, Steven. 1989. *Learnability and cognition: The acquisition of argument structure*. Cambridge, MA: MIT Press.

Wolk, Christoph, Joan Bresnan, Anette Rosenbach & Benedikt Szmrecsanyi. 2013. Dative and genitive variability in Late Modern English. *Diachronica* 30(3), 382-419.

Yáñez-Bouza, Nuria & David Denison. 2015. Which comes first in the double object construction? Diachronic and dialectal variation. *English Language and Linguistics* 19(2), 247-268.

Zehentner, Eva. 2016. *On competition and cooperation in Middle English ditransitives*. Vienna: Vienna University PhD thesis.

Reconstructing the Ditransitive Construction for Proto-Germanic

Juan G. Vázquez-González & Jóhanna Barðdal
(Huelva University & Huelva University)

It has been argued in the field that syntactic reconstruction is untenable for many different reasons, one being lack of form–meaning correspondences in syntax (Lightfoot 1979). However, on a constructional account to syntax, constructions are indeed viewed as form–meaning correspondences, which in turn makes syntactic structures legitimate objects of the Comparatative Method and hence of syntactic reconstruction. On some constructional approaches, moreover, the meaning of schematic argument structure constructions is taken to be derived from the meaning of the verbs that instantiate it (Goldberg 1995, Barðdal 2008, Barðdal et al. 2012). If the meaning of a construction is a derivative of the meaning of the verbs that instantiate it, then verbal meaning may be used to operationalize the meaning component of form–meaning pairings. The aim of the present paper is to reconstruct the ditransitive construcion for Proto-Germanic, including adapting the formalism of Sign-Based Construcion Grammar (Michaelis 2012, Sag 2012, Barðdal & Eythórsson 2012) to encompass different levels of schematicity and the study of verb classes.

By means of a comparison between the North Germanic languages, seventeen narrowly-circumscribed verb classes were initially identified: giving, lending, paying, sending, bringing, future transfer, transfer along a path, enabling, communicated message, instrument of communicated message, creation, obtaining, utilizing, hindrance, constraining and mental activity (Barðdal 2007). These verb classes form seventeen verb-subclass-specific constructions which were later suggested to form the more schematic higher-level verb-class categories of Actual Transfer, Intention, Creation, Mode of Communication, Enabling, Retaining, Mental Processes, and Possession (Barðdal, Kristoffersen & Sveen 2011).

These early analyses are first and foremost based on North Germanic and some fragmentary evidence from West Germanic. After incorporating corresponding data from Old English (West Germanic) and Gothic (East Germanic) into our analysis, we aim to reconstruct the constructional scope of the Ditransitive Construction for Proto-Germanic. Such a reconstruction will largely be in consonance with the situation described above and motivated by a systematic data collection from all three Germanic subbrances, North, West and East Germanic. We show how a syntactic reconstruction may be carried out on the basis of narrowly-circumscribed verb classes, including not only verb-subclass-specific and verb-class-specific constructions, but also event-type constructions. We also demonstrate how verb-class-specific constructions may move along the cline from the core to the periphery of a construction during the course of history.

References

Barðdal, Jóhanna. 2007. The semantic and lexical range of the ditransitive construction in the history of (North) Germanic. *Functions of Language* 14:1.9–30.

Barðdal, Jóhanna. 2008. *Productivity: Evidence from Case and Argument Structure in Icelandic*. Amsterdam: John Benjamins.

Barðdal, Jóhanna, Thomas Smitherman, Valgerður Bjarnadóttir, Serena Danesi, Gard B. Jenset & Barbara McGillivray. 2012. Reconstructing Constructional Semantics: The Dative Subject Construction in Old Norse-Icelandic, Latin, Ancient Greek, Old Russian and Old Lithuanian. *Studies in Language* 36:3.511–547.

Barðdal, Jóhanna & Thórhallur Eythórsson. 2012. Reconstructing Syntax: Construction Grammar and the Comparative Method. *Sign-Based Construction Grammar*, ed. by Hans C. Boas & Ivan A. Sag, 257–308. Stanford: CSLI Publications.

Barðdal, Jóhanna, Kristian E. Kristoffersen & Andreas Sveen. 2011. West Scandinavian Ditransitives as a Family of Constructions: With a Special Attention to the Norwegian V-REFL-NP Construction. *Linguistics* 49:1.53–104.

Goldberg, Adele. 1995. *Constructions. A Construction Grammar Approach to Argument Structure.* Chicago: University of Chicago Press.

Lightfoot, M. 1979. *Principles of Diachronic Syntax*. Cambridge: Cambridge University Press.

Michaelis, Laura A. 2012. Making the Case for Construction Grammar. *Sign-Based Construction Grammar*, ed. by Hans C. Boas & Ivan A. Sag, 31–68. Stanford: CSLI Publications.

Sag, Ivan. 2012. Sign-Based Construction Grammar: An Informal Synopsis. *Sign-Based Construction Grammar*, ed. by Hans C. Boas & Ivan A. Sag, 69–202. Stanford: CSLI Publications.

Semantic shifts in the Swedish ditransitive construction

Fredrik Valdeson
(Stockholm University)

The semantic range of the ditransitive construction in Germanic languages is a topic that has acquired an increasing amount of attention over the last ten years. Within the framework of construction grammar, the starting point of the discussion is usually Goldberg's (1995) work on the English ditransitive construction. In more recent time, an increasing amount of work has been done on investigating how the semantics of the ditransitive construction has changed over time, and research has been conducted regarding the ditransitive construction in English (see e.g. Colleman & De Clerck 2008, 2011), Dutch (Colleman 2011, Delorge & Colleman 2006) and various Scandinavian languages, mainly Icelandic (Barðdal 2007, Barðdal et al. 2011). While Barðdal (2007) also discusses data from archaic Swedish dialects, the ditransitive construction in standard Swedish has not received much attention in previous research, and neither has the diachronic development of the construction in the history of Swedish.

In this paper, which comprises results from a current PhD project, I will present data from a corpus study covering the Modern Swedish period from 16th century Swedish to present-day Swedish, with the main focus on the 19th and 20th centuries. The main purpose is to lay out the semantic range of the ditransitive construction [Sbj V Obj Obj] in present-day Swedish as well as in earlier periods of Modern Swedish, and to determine in which ways the semantics of the construction has altered over the last 500 years. The investigated material comprises of Swedish 16th century chronicles as well as literary prose from 19th and 20th century Swedish. In addition, linguistic evidence is also collected from Swedish blogs, enabling a comparison between different genres in present-day Swedish.

The study mostly covers quantitative changes within the construction (cf. Colleman 2011:402–405), comparing the distribution of tokens in different semantic categories over time. Preliminary results indicate that the use of the ditransitive construction has narrowed semantically, with verbs expressing various kinds of transfer increasing in relative frequency. The use of verbs within this semantic category has increased in frequency from 40% of all instances of the ditransitive construction in mid 19th century Swedish to 70% in present-day Swedish. This development can clearly be seen in the frequency of the verb *ge* 'give', which amounts to 60% of all occurrences of the ditransitive construction in present-day Swedish compared to 20% in the 19th century. Additionally, verbs expressing attitude (such as *avundas* 'envy' and *unna* 'not begrudge') seem to have become less frequent in the ditransitive construction in present-day Swedish, as have verbs expressing dispossession (e.g. *beröva* 'deprive').

To some extent, the changes in the use of the ditransitive construction in Modern Swedish correspond to similar developments in Dutch (see Colleman 2011). In my paper, the final results will

also be compared to results from previous studies on English, Dutch, Icelandic and Swedish dialects (cf. above), thus placing the diachronic development of the ditransitive construction in Swedish within the general context of ditransitives in the Germanic languages.

References

Barðdal, Jóhanna. 2007. The semantic and lexical range of the ditransitive construction in the history of (North) Germanic. *Functions of Language* 14(1). 9–30.

Barðdal, Jóhanna, Kristian Emil Kristoffersen & Andreas Sveen. 2011. West Scandinavian ditransitives as a family of constructions: With a special attention to the Norwegian 'V-REFL-NP' construction. *Linguistics* 49(1). 53–104.

Colleman, Timothy. 2011. Ditransitive Verbs and the Ditransitive Construction: A Diachronic Perspective. *Zeitschrift für Anglistik und Amerikanistik* 59(4). 387–410.

Colleman, Timothy & Bernard De Clerck. 2008. Accounting for ditransitive constructions with *envy* and *forgive*. *Functions of Language* 15(2). 187–215.

Colleman, Timothy & Bernard De Clerck. 2011. Constructional semantics on the move: On semantic specialization in the English double object construction. *Cognitive Linguistics* 22(1). 183–209.

Delorge, Martine & Timothy Colleman. 2006. Constructions with verbs of dispossession in Dutch: A corpus-based case study. *Studies van de BKL* 1. 1–15.

Goldberg, Adele. 1995. *Constructions: A construction grammar approach to argument structure*. Chicago: University of Chicago Press.

Object alignment in ditransitive constructions in the history of German

Philipp Rauth

(Universität des Saarlandes)

If we take a look at the history of German and English object alignment of full nouns in ditransitive constructions, we can observe an almost identical starting point and similar changes in the course of time. But, as my diachronic corpus study (approx. 2,000 German ditransitives) reveals, German and English differ regarding the reasons for these changes.

First of all, Old English, Old Saxon and Old High German provide an almost equal frequency of npn-pronominal IO>DO and DO>IO alignments (cf. Allen 1995; Rauth in press). During Middle English the inflectional case system has been completely lost, while the prepositional IO spreads and DO>IO$_{PP}$ replaces DO>IO$_{DP}$ (cf. Koopman & Wurff 2000). Both changes can also be observed in German: First, since the 17th century most parts of Modern Low German have lost their case distinction system, but no prepositional IO has resulted from that. Surprisingly, while the variability of object alignment has decreased significantly (only 2.2% DO>IO), we still find DO>IO in highly ambiguous contexts containing two human objects. Second, a prepositional IO has been established in parts of modern Upper German. Contrary to invariable English DO>IO$_{PP}$, the Upper German IO$_{PP}$ can precede the DO and the prepositional marking even seems to 'boost' the variability (23% DO>IO: highest variability rate of all dialects) (cf. Rauth 2016).

Apart from that, the variability in German shows a slight decrease over time: 22% DO>IO in 13th century, 15% DO>IO in 15th–17th century, 10% DO>IO in 19th–20th century. However, unlike Speyer (2011, 2013, 2015) observes in his corpus, my data suggest that the alignment has always been quite variable compared to the situation in Modern Standard German (16% DO>IO, cf. Røreng 2011).

Thus, contrary to English, the decrease of DO>IO alignment in Modern Low German can neither be the sole response to the loss of case inflection nor to the need for avoiding ambiguous readings. Furthermore, even in some Central German dialects providing some case morphology the rate of DO>IO is very low. Similar observations can be made in Icelandic, where the variability of object alignment is highly restricted, although it provides a highly-developed case system (cf. Collins & Thráinsson 1996). On the contrary, Afrikaans has lost all of its case morphology, but object alignment is variable (cf. Molnárfi 1999).

These findings suggest that variability rather seems to be a language inherent feature than to be determined by its morphological conditions. In line with the observations by Lenerz (1977) for Modern Standard German, my diachronic data reveal that information structure can cause inversion of object alignment in all stages and varieties of German. Even the few DO>IOs in Modern Low German obey to this. But this dialect does not make use of inversion as extensively as other dialects do. Accordingly, its loss of case distinction has not led to an invariable (non-prepositional) object alignment yet, as in Modern English or French. But its speakers may be more likely to resort to other means, such as prosody, when marking information structural differences.

References

Allen, Cynthia L. 1995. *Case Marking and Reanalysis*. Oxford: Clarendon Press.

Collins, Chris & Höskuldur Thráinsson. 1996. VP-Internal Structure and Object Shift in Icelandic. *Linguistic Inquiry* 27(3). 391–444.

Koopman, Willem & Wim van der Wurff. 2000. Two word order patterns in the history of English: Stability, variation and change. In: Ariel Shisha-Halevy, Erich Poppe & Rosanna Sornicola (eds.), *Stability, variation, and change of word-order patterns over time* (Current Issues in Linguistic Theory 213), 259–283. msterdam/Philadelphia: Benjamins.

Lenerz, Jürgen. 1977. *Zur Abfolge nominaler Satzglieder im Deutschen* (Studien zur deutschen Grammatik 5). Tübingen: Narr.

Molnárfi, László. 1999. Zur Diskurskomponente in der Sprechsprache: vir als Rhemamarkierer im Afrikaans. *Folia linguistica* 33(1). 75–100.

Rauth, Philipp. 2016. Die Rolle dialektaler Kasussysteme bei der Abfolge ditransitiver Objekte. In: Augustin Speyer & Philipp Rauth (eds.), *Syntax aus Saarbrücker Sicht 1. Beiträge der SaRDiS-Tagung zur Dialektsyntax* (Zeitschrift für Dialektologie und Linguistik Beihefte 165), 109–135. Stuttgart: Steiner.

Rauth, Philipp. in press. Nominale Ditransitive im Tatian und Heliand. In: Augustin Speyer & Philipp Rauth (eds.), *Syntax aus Saarbrücker Sicht 2. Beiträge der SaRDiS-Tagung zur Dialektsyntax* (Zeitschrift für Dialektologie und Linguistik Beihefte ?), Stuttgart: Steiner.

Røreng, Anita. 2011. *Die deutsche Doppelobjektkonstruktion: Eine korpusbasierte Untersuchung zur relativen Abfolge nominaler Akkusativ- und Dativobjekte im geschriebenen Deutsch*. Tromsø: Univ. Tromsø, PhD thesis.

Speyer, Augustin. 2011. Die Freiheit der Mittelfeldabfolge im Deutschen - ein modernes Phänomen. *Beiträge zur Geschichte der deutschen Sprache und Literatur* 133(1). 14–31.

Speyer, Augustin. 2013. Performative Mündlichkeitsnähe als Faktor für die Objektstellung im Mittel- und Frühneuhochdeutschen. *Beiträge zur Geschichte der deutschen Sprache und Literatur* 135(3). 342–377.

Speyer, Augustin. 2015. Object order and the Thematic Hierarchy in older German. In: Jost Gippert & Ralf Gehrke (eds.), *Historical Corpora: Challenges and Perspectives* (Corpus Linguistics and Interdisciplinary Perspectives on Language 5), 101–124. Tübingen: Narr.

Syntactic realization of the arguments of *possession change* verbs in early English

Katarzyna Sówka-Pietraszewska
(University of Wrocław)

Aim: In this presentation, I will analyze argument realization patterns of ditransitive *possession change* verbs, such as *give* verbs, e.g., *feed*, *give*, *lend* and *send* verbs, e.g., *send*, *hand*, in Old English (OE) and Middle English (ME). The main aim is to show how the loss of morphological case influenced the manner of syntactic realization of arguments of these verbs. The hypothesis is couched in the Lexicalist framework (Levin 1993, Levin and Rappaport Hovav 2005, Rappaport Hovav and Levin 2008,), who assume that argument structure of verbs determines the syntactic realization of their arguments.

The state of facts: In present-day English (PDE), *possession change* verbs are characterized as verbs licensing more than one way of expressing their arguments. The result is a well-known dative alternation that involves two syntactic variants: a double object construction [V-NP_2-NP_1] and a prepositional object construction [V-NP_1-*to*NP_2], see (1) below.

(1) a. Mary gave her mother a bunch flowers.   [V NP_2 NP_1]
   b. Mary gave a bunch of flowers to her mother. [V NP_1 *to*-NP_2]

(2) a. Mary sent her mother a letter.   [V NP_2 NP_1]
   b. Mary sent a letter to her mother.   [V NP_1 *to*-NP_2]

A major research issue has been the status of the preposition *to* in the prepositional object construction. So far, it has been assumed that it is a preposition pointing at direction of movement (see, among others, Pinker 1989, Krifka 1999; Pesetsky 1992). This, on the other hand, implies that *give* verbs involve movement in their events structures, which is a rather controversial statement.

In fact, Old English data contradicts this claim. OE *give* verbs did not license the prepositional object construction until the Middle English period see (3a). Only after the collapse of morphological case system, they started to license the prepositional object frame, with the preposition *to*. By contrast, OE *send* frequently occurred in such construction, see (3b). Notice that *send* verbs retained this property until present.

(3) a. &   sealde   ðam   fixum   sund
    and give-past the-DAT.PL   fish-DAT.PL   power of swimming-ACC
    &   ðam   fugelum   fliht
    and the-DAT.PL birds-DAT.PL   flight-ACC
    'And gave the fishes sea and the birds flight' (*ÆCHom* I, 1 182.106)

  b. He   sende   þone   halgan   gast   to   eorþan.
    he   send-past the   holy-ACC   ghost-ACC   to   earth-DAT.
    'He sent the Holy Ghost to the earth.' (*ÆCHom* I, 22 360.168)

Hypothesis: Given that I would like to claim that there are two different TOs in PDE: (i) *to* which is an allative preposition that points at the direction of movement and is selected by verbs involving movement in their inherent meaning, e.g., *send*; (ii) *to* which started to occur in the [V NP$_1$ NP$_2$] construction in ME with *give* verbs to remedy for the loss of overt dative case on NP$_2$. This *to* does not imply movement; instead it points at the Recipient of the action of possession change. In order to support this claim, I will use data from early English.

References

Allen, Cynthia L. 1995. *Case marking and reanalysis. Grammatical relations from Old to early Modern English*. Oxford University Press: Oxford.

Denison, David. 1993. *English historical syntax*. Longman: London.

Koopman, Willem F. 1990. Word order in Old English, with special reference to the verb phrase. *Amsterdam Studies in Generative Grammar, 1*.

Levin, Beth. 1993. *English verb classes and alternations*. University of Chicago Press: Chicago.

Levin, Beth and Malka Rappaport Hovav. 2005. *Argument Realization*. Research Surveys in Linguistics Series. Cambridge University Press, Cambridge.

Krifka, Manfred. 1999. Manner in Dative Alternation. *WCCFL 18*. Cascadilla Press: Sommerville, MA.

McFadden, Thomas. 2002. The Rise of the to-dative in Middle English. [In] David Lightfoot (ed.) *Syntactic Effects of Morphological Change*. Oxford University Press: Oxford.

Mitchell, Bruce.1985. *Old English syntax*, 2 vols. Clarendon Press: Oxford.

Pesetsky, D. 1992. *Zero syntax. Experiencers and cascades*. MIT Press.

Pinker, S. 1989. *Learnability and cognition. The acquisition of argument structure*. Cambridge, Mass: MIT Press.

Rappaport Hovav, Malka and Beth Levin. 2008. The English dative alternation: The case for verb sensitivity. *J. Linguistics 44*. Cambridge University Press: Cambridge.

Traugott, Elisabeth. C. 1972. *The history of English syntax. A transformational approach to the history of English sentence structure*. Holt, Rinehart and Winston: New York.

Taylor, Ann *et al.* 2003. *York-Toronto-Helsinki Parsed Corpus of Old English Prose (YCOE).* University of York: York.

Toller, Thomas N. and Alistair Campbell (eds.). [1838] 1972. *An Anglo-Saxon dictionary based on the manuscript collection of late Joseph Bosworth.* Oxford University Press: Oxford.

Yanagi, Tohomiro. 2011. Ditransitive alternation and theme passivization in Old English. [In] J. Tyrkkö, M. Kilpiö, T. Nevalainen, and M. Rissanen (Eds.), *Studies in Variation, Contacts and Change in English, 10*: *Outposts of Historical Corpus Linguistics: From the Helsinki Corpus to a Proliferation of Resources.* Retrieved from http://www.helsinki.fi/varieng/series/volumes/10/yanagi/

Visser, Frederik. Th. 1963-1973. An historical syntax of the English Language, 4 Vols. E. J. Brill: Leiden.

The middle English prepositional dative: Grammaticalisation and contact with French

Richard Ingham
(University of Westminster)

The spread of the *to*-dative construction to verbs of possession transfer and communication in Middle English (ME) can be taken as grammaticalising *to* as an indirect object marker (McFadden 2002). *To* was common in Old English (OE) with directed motion verbs (Visser 1963), but not in non-motion eventualities, cf. these OE and ME translations of the same passage of scripture:

(1) a. Manega gode weorc ic **eow** aeteowde be mlnum Faeder.   *WS Gospel John 10.32*
        'I showed you many good works by my father'
(1) b. I haue schewid **to ȝou** manye goode werkis of my fadir.   *Wyclif Bible, John10.32*
        'I have showed you many good works of my father'

Conventionally, internal change by grammaticalisation towards *to*-dative use is assumed following the loss of overt nominal Dative marking in Middle English. For Allen (1995), De Cuypere (2015), and McFadden (2002) the *to*-dative is seen as replacing overt noun case marking, following the loss of morphological dative. Although De Cuypere (2015) observed occasional uses of the *to*-dative marking Recipients argument in OE, overt case loss is still usually taken as the determining factor. We argue that prior studies have not sufficiently considered the role of linguistic contact, especially with Anglo-Norman French, which lacked a ditransitive construction, using only the prepositional à-dative with possession transfer verbs, e.g.:

(2) ...pur çoe ke il dona a la beste tel poeir.   *Apoc 63*
    '... because he gave the beast such power'

This provided the model for replicating (Heine & Kuteva (2005) the recipient *to*-dative construction, and is also consistent with the timing of the change, in the 13th-14th centuries when French influence was strongest (Dekeyser 1986), and when bilingualism amongst educated classes favoured contact effects (Ingham 2012).

Importantly, the *to*-dative was extended in ME to the Experiencer argument of psych verbs whose French counterparts took the *à*-dative (Trips, Ingham & Stein 2015), e.g.:

(3) For God wasted þe bones of hem þat plesen to men.   *EARLPS,63.2771*
    'Because God weakened the bones of those who please men.'

However, not all OE dative-marked verb complements shifted in ME to taking the *to*-dative. Where Old French equivalents of OE dative-taking psych verbs, e.g. *eglian* ('ail'), and *hreowan* ('rue'), did not take an Experiencer prepositional dative, the Experiencer argument appeared as a (pro)nominal, e.g. (4)-(5), but not as a *to*-PP:

(4) Ða hali children..hie ne eileden nauerȝiete **ne gode ne manne**.   *Vices&Virtues* 133,8
    'The holy children... they never yet troubled God or man'
(5) Þe Walssh wer alle day slayn; now rewes **þam** þer res.   *ManningChron*. 237:
    'The Welsh were slain all day; now they regret their attack'

The selectivity of *to*-dative marking in relation to dative arguments suggests that Anglo-Norman French provided a replication source for this development. It is concluded that grammaticalisation

theory benefits by more generally recognising contact triggers that may shape processes of internal development.

References

Allen, C. 1995. *Case Marking and Reanalysis: Grammatical Relations from Old to Early Modern English.* OUP.

De Cuypere, L. 2015. The Old English *to*-dative construction. *English Language and Linguistics* 19(1), 1-26.

Dekeyser, X. 1986. 'Romance loans in Middle English: a re-assessment'. In D. Kastovsky and A. Szwedek (eds) *Linguistics across Historical and Geographical Boundaries. Volume 1: Linguistic Theory and Historical Linguistics*, 253–266. Berlin.: Mouton de Gruyter.

Heine, B. and Kuteva, T., (eds). 2005. *Language contact and grammatical change*. Cambridge: CUP.

Ingham, R. 2012. *The transmission of Anglo-Norman: Language History and Language Acquisition*. Amsterdam : Benjamins.

McFadden, T. 2002. The rise of the *to*-dative in Middle English. In D. Lightfoot. Ed., *Syntactic effects of morphological change*, OUP.

Trips, C., Ingham, R. & A. Stein 2015. 'The form of argument structure under contact influence'. Paper presented at the LAGB conference, University of London, Sept. 2015

Visser, F. 1963. *An historical syntax of the English language, Part 1: syntactical units with one verb*. Leiden: Brill.

Dialectal ditransitive patterns in British English

Johanna Gerwin

(University of Kiel)

The question of what determines the dative alternation, i.e. the choice between a prepositional construction (*He gave a book to her*) or a double object construction (*He gave her a book*) as complementation pattern of ditransitive verbs such as *give*, has generally been neglected by variationists. This is due to the fact that the alternation exists in the standard language and has been explained by language-internal factors such as verb semantics, heaviness of the objects, constructional meaning differences etc. (cf. e.g. Givón 1984, Gropen et al. 1989, Goldberg 1992, Levin 1993). However, this approach overlooks language-external factors, such as origin of the speaker, language change, or spoken or written register, which determine the linguistic choices of speakers. In order to explain the dative alternation, it is thus essential to regard ditransitives as a sociolinguistic variable in the Labovian sense of 'two ways of saying the same thing' (Labov 1972), and to investigate the impact of regional, diachronic, or stylistic factors on the distribution of its variants (i.e. the prepositional and the double object variant) (cf. also Bresnan & Hay 2008, Bresnan & Ford 2010, Siewierska & Hollmann 2007, Gast 2007).

This study thus investigates ditransitives as a sociolinguistic variable in relying on spoken and written data, and by establishing correlations in usage with intra- as well as extra-linguistic variables. For the regional and diachronic analyses, spoken data provided by the Freiburg English Dialect Corpus (FRED) as well as the online edition of the British National Corpus (BNCweb) is used. The two corpora do not only lend themselves to a thorough investigation of regional preferences in

ditransitive patterns in England but also enable a diachronic perspective, spanning about two generations of speakers.

The analysis of 21 ditransitive verbs shows that there are considerable (quantitative) differences in the regional usage of ditransitives in Britain. Especially 'alternative patterns' such as *give it me* and *give it the woman* are attested in dialects of English and together with their canonical counterparts show a clear regional distribution. The diachronic development in the 20th century shows that double object patterns are generally on the rise in all regions even with two pronominal objects such as *give it to me/give me it*, thus reversing a historical trend in earlier centuries (cf. e.g. Rantavaara 1962, Koopman & van der Wurff 2000; Allen 2006).

Incorporating language-external factors such as origin of the speaker furthers our understanding of linguistic choices and thus contributes to an integrated approach to the explanation of the dative alternation in (British) English.

References

Allen, Cynthia. 2006. "Case Syncretism and Word Order Change". In: Ans van Kemenade & Bettelou Los (eds). *The Handbook of the History of English.* Malden, MA/Oxford: Blackwell. 201-23.

Bresnan, Joan & Jennifer Hay. 2008. "Gradient grammar: An effect of animacy on the syntax of *give* in New Zealand and American English". In: *Lingua* 118. 245-59.

Bresnan, Joan & Marilyn Ford. 2010. "Predicting Syntax: Processing Dative Constructions in American and Australian Varieties of English". In: *Language* 86, 1. 168-213.

Gast, Volker. 2007. "*I gave it him* - on the motivation of the 'alternative double object construction' in varieties of British English". In: Anna Siewierska & Willem Hollmann (eds). *Functions of Language - Special issue: Ditransitivity.* 31-56.

Givón, Talmy. 1984. "Direct Object and Dative Shifting: Semantic and Pragmatic Case". In: Frans Plank (ed). *Objects - Towards A Theory Of Grammatical Relations.* London/Orlando, FL: Academic Press. 151-82.

Goldberg, Adele. 1992. "The inherent semantics of argument structure: The case of the English ditransitive construction". In: *Cognitive Linguistics* 3, 1. 37-74.

Gropen, Jess, Steven Pinker, Michelle Hollander, Richard Goldberg & Ronald Wilson. 1989. "The Learnability and Acquisition of the Dative Alternation in English". In: *Language* 65, 2. 203-57.

Koopman, Willem & Wim van der Wurff. 2000. "Two word order patterns in the history of English: Stability, variation, change". In: Rosanna Sornicola, Erich Poppe & Ariel Shisha-Halevy (eds). *Stability, variation and change of word-order patterns over time.* Amsterdam/Philadelphia: John Benjamins. 259-83.

Labov, William. 1972. *Sociolinguistic Patterns.* Philadelphia: University of Pennsylvania Press.

Levin, Beth. 1993. *English Verb Classes and Alternations.* Chicago: University of Chicago Press.

Rantavaara, Irma. 1962. "On the development of the periphrastic dative in late Middle English prose". In: Emil Öhmann & Veikko Väänänen (eds). *Neuphilologische Mitteilungen.* Helsinki: Neuphilologischer Verein. 175-203.

Siewierska, Anna & Willem Hollmann. 2007. "Ditransitive clauses in English with special reference to Lancashire dialect". In: Mike Hannay & Gerard J. Steen (eds). *Structural-Functional Studies in English Grammar.* Amsterdam/Philadelphia: John Benjamins. 81-102.

The ditransitive alternation in present-day German. A corpus based investigation of *geben*

Hilde De Vaere, Ludovic De Cuypere, & Klaas Willems
(UGent; VUBrussel and UGent, & UGent)

1. The verb *geben* in German is commonly claimed to be confined to the Indirect Object Construction with the Recipient in the dative case (IOC) to the exclusion of the Prepositional Object Construction (POC) (Sabel 2002, Adler 2011). However, there are occurrences of both constructions in the *Deutsches Referenzkorpus (DeReKo)* (cf. also *E-VALBU*, *geben*), in which REC is either coded in the dative (IOC) or with *an* + accusative (POC), compare:

(1) *Der Doktor zu seiner Assistentin: "Geben Sie <u><der Dame></u> bitte mal die Rechnung".*

(2) *Oma und Opa dürfen Geld <u><an die Enkel></u> geben.*

The aim of this paper is i/ to provide empirical evidence for the existence of the alternation in German on the basis of corpus research, ii/ to explore the motivating factors behind the IOC-POC alternation and iii/ to outline a theoretical framework that can accommodate semantic and pragmatic differences between IOC and POC.

2. The analysis draws on datasets extracted from *DeReKo*: 745 IOC sentences and 582 POC sentences in the simplex dataset (*geben*) and 462 IOC and 568 POC in the complex dataset (*abgeben*, *preisgeben*, *übergeben*, *vergeben*, *weitergeben*, *zurückgeben*). The sample sentences were annotated for animacy, concreteness, definiteness, givenness, order of arguments, length difference, pronominality, idiomaticity (all factors were annotated with regard to both THeme and RECipient) as well as verb form, verb type, voice and transfer sense (concrete, propositional, abstract).

3. The alternation is much more common in the complex dataset than in the simplex dataset. With *geben*, IOC normally occurs with REC–TH order as in (3) and POC with TH-REC order as in (4). With complex verbs, TH-REC order is typical for POC as in (5), but IOC occurs with both word orders as in (6) and (7).

(3) *Willeke van Ammelrooy gibt <ihr> [ein prägendes Profil aus Warmherzigkeit und Tatkraft].*

(4) *Rollt der Ball über die Torlinie, gibt die Zentrale [ein Signal] <an einen Minicomputer am Handgelenk des Schiedsrichters>.*

(5) *Am 30. Juni gibt der Nationalspieler [sein Wissen] <an ausgewählte Jungkicker> weiter.*

(6) *Nach dem Gespräch war sich die Jury einig und vergab <dem Musikverein> [das Prädikat „sehr gut"].*

(7) *Bitte, dann übergebe ich [die Ausstellungsstücke] <dem Museumsdorf in Cloppenburg>.*

	REC–TH order simplex	REC–TH order complex	TH–REC order simplex	TH–REC order complex
IOC	714	198	31	264
POC	2	11	580	557

A logistic regression analysis of N = 1327 observations in the simplex dataset results in the following findings: the POC is positively associated with RECs that are longer than THs, given or accessible THs, concrete or propositional THs, concrete RECs, new or accessible RECs, and collective or inanimate RECs. The N = 1030 observations in the complex dataset reveal that the alternation is verb-

specific. *Weitergeben* occurs mainly in POC, *zurückgeben* and *preisgeben* are strongly associated with IOC; *übergeben* occurs equally often in both constructions; *abgeben* and *vergeben* have a preference for POC. The observed tendencies show parallels with the English dative alternation, but German differs markedly from English with regard to word order variation in IOC in the complex dataset.

Semantic and pragmatic differences point to the conclusion that IOC and POC are best distinguished on the level of "normal language use" (Coseriu 1975, Levinson 2000). On this level, the two constructions can be analyzed as conventionalized realizations of a general 'transfer' template, with morphosyntactic specifications of the three argument roles.

References

Adler, J. (2012). *Dative alternations in German. The argument realization options of transfer verbs*. Ph.D Jerusalem: Hebrew University.

Bresnan, J. & T. Nikitina (2009). The Gradience of the Dative Alternation. In: *Reality Exploration and Discovery: Pattern Interaction in Language and Life*, edited by L. Uyechi and L. Hee Wee. Stanford: CSLI Publications. 161-184.

Bresnan, J. & M. Ford. (2010). Predicting Syntax: Processing Dative Constructions in American and Australian Varieties of English. *Language* 86(1). 186-213.

Coseriu, E. (1975). *Sprachtheorie und allgemeine Sprachwissenschaft*. München: Fink.

E-VALBU. *Das Elektronische Valenzwörterbuch deutscher Verben*. Mannheim: Institut für deutsche Sprache. (URL https://hypermedia.ids-mannheim.de/e-valbu.html, Accessed on 2016-11-14).

Haspelmath, M. (2013). Ditransitive Constructions: The Verb 'Give'. In: Dryer, Matthew S. & Haspelmath, Martin (eds.) *The World Atlas of Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. (URL http://wals.info/chapter/105, Accessed on 2016-09-15).

Levinson, S. (2000). *Presumptive meanings. The theory of generalised conversational implicature*. Cambridge, Mass, London: MIT Press.

Sabel, J. (2002). Die Doppelobjekt-Konstruktion im Deutschen. *Linguistische Berichte.* 19: 229-244.

Ditransitive syntactic priming in a biased language: Investigating abstract representations over development

Alina Kholodova

(University of Kaiserslautern)

Syntactic priming is the tendency for an individual to unconsciously reproduce a syntactic structure similar to the one just heard, irrespective of lexical information [1]. Furthermore, when the verb in the currently processed (prime) and the sentence produced shortly after (target) is shared, syntactic reproduction is triggered even more, resulting in the so-called lexical boost effect [2]. Both effects have been shown in adults, whereas the lexical boost varies in children from study to study questioning the analogy of processing mechanisms in both groups. Apart from this, most priming paradigms on the dative alternation (DA) have mainly been conducted in languages like English where both the double object (DO) and the prepositional object (PO) structures are relatively equally frequent. However, little research has been carried out in languages like German where one of the structural options is strongly preferred. In the present study, we investigated structural priming effects in German children and adults over development. As a basis for this, we studied verb-structure biases

in German by carrying out 3 pre-studies: (1) sentence completion task (2) corpus analyses of child and child-directed speech (3) grammaticality judgement task. The results as well as an analysis of the literature confirmed German to be extremely DO-biased (frequency = 80-90%). Consequently, we raised the question: can syntactic priming boost the dispreferred PO production in German?

We conducted a video-clip description task in which German-speaking 3-4 year old (n=42) and 5-6 year old (n=31) children and adults (n=37) repeated either PO or DO primes produced by the experimenter (e.g. *Micky schickte den Fisch zu Minnie/Minnie den Fisch* (*Mickey sent the fish to Minnie/Minnie the fish*)) and then produced target structures based on a prompt (e.g. *Dora verkaufte …* (*Dora sold…*)), following the methodology outlined in [3]. Four verbs were used: *bringen* 'bring', *geben* 'give', *schicken* 'send', and *verkaufen* 'sell'. These verbs were either different (DV) or the same (SV) in prime and target in order to test for the lexical boost effect. Additionally, we incorporated a baseline condition containing intransitive (neutral) primes to assess the level of PO/DO production when not influenced by ditransitives.

The results revealed a significant 30% increase in 3-4 year olds, a 13% increase in 5-6 year olds and a 16% increase in adults for PO production following a PO prime compared to an intransitive prime. This indicates that structural biases do not prevent priming effects; rather, the high priming magnitude for rare structures hints at an implicit learning effect, especially for the 3-4 year olds whose representations are known to be weakest compared to other groups. Concerning the same and different verb manipulations, adults showed a greater priming effect in the SV condition than in the DV condition (31%; p < .001), whereas children did not, in line with the literature [3,4]. This implies that children's processing mechanisms differ from adults in lexically dependant structural contexts. All these assumptions will be further discussed in the framework of two competing priming accounts - Implicit Learning [5,6] and Residual Activation [2,7].

References

[1] Bock J.K. (1986). Syntactic persistence in language production. *Cognitive Psychology 18*: 355–387.

[2] Pickering M.J. & Branigan H.J. (1998). The representation of verbs: Evidence from syntactic priming in language production. *Journal of Memory and Language 39*: 633-651.

[3] Rowland C.F., Chang F., Ambridge B., Pine J.M., & Lieven E.V.M. (2012). The development of abstract syntax: Evidence from structural priming and the lexical boost. *Cognition 125*: 49-63.

[4] Peter M., Chang F., Pine J.M., Blything R., & Rowland C.F. (2015). When and how do children develop knowledge of verb argument structure? Evidence from verb bias effects in a structural priming task. *Journal of Memory and Language 81*: 1-15

[5] Bock J.K. & Griffin Z.M. (2000). The persistence of structural priming: Transient activation or implicit learning? *Journal of Experimental Psychology: General 129*: 177–192.

[6] Chang F., Dell G., & Bock J.K. (2006). Becoming syntactic. *Psychological Review* 113 (2): 34-272.

[7] Cleland A.A. & Pickering M.J. (2003). The use of lexical and syntactic information in language production: Evidence from the priming of noun-phrase structure. *Journal of Memory and Language 49*: 214 –230.

WORKSHOP 9

Emerging engagement: Descriptive and theoretical issues

Henrik Bergqvist & Dominique Knuchel
(Stockholm University & University of Bern)

The proposed workshop explores the category of engagement in small number of languages with an aim to explain its diachronic development, ontogeny, and function. Engagement is a recently proposed category/notion that targets the potentially diverging (epistemic) perspectives of the speech-act participants (Evans et al. in prep; cf. "complex epistemic perspective"; Bergqvist 2015a, 2016, accepted; Evans 2005). As such, it concerns the distribution of knowledge and attention between the speech-participants, where the speaker asserts assumptions about the addressee's knowledge of/attention to a state-of-affairs as either shared with the speaker, or non-shared. Languages where instantiations of the proposed category have been attested are found in South America, the Himalayas, and Papua New Guinea (Bergqvist 2015a, b).

Engagement in this sense, was used by Landaburu (2007) to account for forms in Andoke (Isolate, Colombia) that signal contrastive configurations of the speaker's and the addressee's perspective in an epistemic sense (i.e. sensory access and attention). Example (1) illustrates the basic contrast between one scenario where both speaker and addressee are aware of "the day dawning" (1a) and another where the speaker assumes that the addressee has yet to notice what the speaker is already attending to (1b):

(1) a.   *páa*   *b-ʌ*   *ʌ-pó'kɚ-i*
              already +SPKR+ADDR.ENGAG-3SG.INAN   3SG.INAN-light-AGR
              'The day is dawning.' (as we can both see)

     b.   *páa*   *kẽ-ø*   *ʌ-pó'kɚ-i*
              already +SPKR-ADDR.ENGAG-3SG.INAN   3SG.INAN-light-AGR
              'The day is dawning.' (as I witness, but which you are not aware of)
              (Landaburu 2007: 26, after Evans et al. in prep)

Bergqvist (2016) draws on Landaburu's study in his analysis of epistemic marking in Kogi (Arwako-Chibchan, Colombia) where five prefixes are shown to encode the speaker's commitment with regard to an event alongside assumptions regarding the addressee's commitment to the same. Kogi has a form *na-* that means "The speaker knows *x* and expects the addressee to be unaware/ignorant of *x*" and a form *ni-* that means "The speaker knows *x* and expects the addressee to know/be aware of *x* too". These forms are in turn contrasted to *sha-/shi-,* which encode a corresponding distinction in terms of non-shared/shared from the addressee's perspective. *sha-* means "The speaker expects the addressee to know/be aware of *x* while the speaker is unaware/ignorant of *x*", while *shi-* means that "The speaker expects the addressee to know/be aware of *x*, and the speaker knows/is aware of *x* too". A fifth form, *ska-* encodes the simultaneous ignorance of both speech participants. Ika, a language closely related to Kogi, features a version of egophoric marking that mirrors some of the semantic contrasts found in Kogi, but by way of a distinct system that signals the

involvement of the speech participants in relation to their respective epistemic authorities (Bergqvist 2012, forthcoming, accepted). Research on Kogi and Ika has provided key insights into how a (culturally salient) functional pressure to express engagement in closely related languages develops into distinct systems.

In another part of the world, Duna (Trans New Guinea, Papua) shows engagement semantics, but embedded in evidential paradigms (San Roque 2015, San Roque et al. 2015, San Roque et al. forthcoming), exemplifying a categorical overlap between engagement and evidentiality. Comparable, but distinct systems have also been (tentatively) described for Angal (Trans New Guniea, Papua New Guinea; Sillitoe 2010) and Foe (Trans New Guinea, Papua New Guinea; Rule 1977). In a South American context, evidentials with engagement semantics are described for South Conchucos Quechua (Quechuan; Hintz and Hintz 2014) and Southern Nambikwara (Nambikwaran; Kroeker 2001) and may possibly be a salient feature of several other systems in the Andean-Amazonian region including ones that do not specifically express evidentiality (e.g. Kakataibo, Panoan; Zariquiey 2011, 2015).

Engagement thus signals (a)symmetries in the speaker-hearer dyad that concern various aspects of the attention, knowledge, authority, and expectations of the speaker and the speaker's assumptions about the hearer's perspective with respect to the same. Because of this, engagement may be thought of in terms of *intersubjectivity*, a notion that extends the subjective perspective of the speaker to encompass the speaker's attention to the hearer/addressee (Traugott and Dasher 2002; cf. Benveniste 1971). However, intersubjectivity arguably exists on at least two levels in language: a primary intersubjectivity (Trevarthen 1979) that underlies language as a conventionalized system of communication, and a secondary intersubjectivity that develops later, and which is more closely associated with resources for aligning perspectives by means of coercion, argumentation, and deference. If engagement is to be compared to the notion of intersubjectivity, then it's the secondary intersubjectivity that is at issue.

Key issues and questions to be explored in the proposed workshop are:

1. With respect to the correspondence between encoded meaning and meaning-in-use: how do the encoded semantics relate to communicative intentions and pragmatically implied meaning, such as rights to knowledge, epistemic authority, deference, mitigation, and politeness?
2. With respect to the intersection of engagement with other categories: how do markers of engagement relate to/intersect other categories, such as tense, evidentiality, and sentence-type?
3. With respect to grammaticalization: How is the grammatical status of forms as inflections, particles, or auxiliaries connected to meaning content, semantic scope and level of obligatoriness?
4. With respect to the diachronic development of engagement: what are the evolutionary paths that give rise to engagement markers?
5. With respect to language development: at what age do markers of engagement emerge and how are they used in children's speech?

The proposed workshop contributes to the exploration the world's linguistic diversity and our understanding of social cognition as it is encoded in the grammar of the world's languages. More specifically, it aims to chart how socio-cognitively grounded verbal behavior emerges in the language of the child, what the possible/attested grammaticalization paths are, and how the diachrony of forms relate to communicative pressures. Engagement, in essence, echoes what is most important to us, namely our social reality.

References

Benveniste, Émile. 1971. [1966]: *Problems in General Linguistics*. University of Miami Press, Coral Gables.

Bergqvist, Henrik. 2012. Epistemic marking in Ika (Arwako). *Studies in Language* (News from the field) 36:1. John Benjamins, 151-178.

Bergqvist, Henrik. 2015a. Epistemic marking and multiple perspective: an introduction. In San Roque, Lila and Henrik Bergqvist (eds.), Special Issue: Epistemic marking in typological perspective, *Language typology and universals* (STUF), 68: 2, 123-141.

Bergqvist, Henrik. 2015b. The role of perspective in epistemic marking. Lingua, doi.org/10.1016/j.lingua.2015.02.008

Bergqvist, Henrik. 2016. Complex epistemic perspective in Kogi (Arwako). International Journal of American Linguistics, 82:1, 1-34.

Bergqvist, Henrik. in press. Egophoric marking in interrogatives. In Simeon Floyd, Elisabeth Norcliffe, Lila San Roque (eds.), *Egophoricity*. Amsterdam: John Benjamins.

Bergqvist, Henrik. accepted. Intersubjectification revisited: a cross-categorical perspective. In Guentcheva, Zlatka (ed.), *Epistemic modality, evidentiality and beyond*, Empirical Studies in Language Typology, Mouton De Gruyter.

Boye, Kasper. 2012. *Epistemic meaning: A crosslinguistic and functional-cognitive study.* [Empirical Approaches to Language Typology, vol. 43]. Berlin: Mouton de Gruyter.

Evans, Nicholas R. 2005. View with a view: towards a typology of multiple perspective. Berkeley Linguistics Society, 93-120.

Evans, Nicholas R., Henrik Bergqvist, and Lila San Roque. in prep. The grammar of engagement. *Language and Cognition*. UK Cognitive Linguistics Association. Cambridge University Press.

Hintz, Daniel, J.and Diane M. Hintz. 2014. The evidential category of mutual knowledge in Quechua. *Lingua*, http://dx.doi.org/10.1016/j.lingua.2014.07.014

Kroeker, Menno. 2001. A Descriptive Grammar of Nambikuara. *IJAL*, 67: 1. Chicago: University of Chicago, 1-87.

Landaburu, Jon. 2007. La modalisation du savoir en langue Andoke (Amazonie Colombienne). In Guentchéva, Zlatka and Jon Landaburu (eds.) *L'eénonciation médiatisée II - Le traitment épistémologique de l'information: illustrations amérindiennes et caucasiennes,* pp. 23-47, Paris: Édition Peeters.

Rule, W. M. 1977. A comparative study of the Foe, Huli and Pole languages of Papua New Guinea. *Oceania Linguistic Monographs* 20. Sydney, University of Sydney.

San Roque, Lila. 2015. Using you to get to me: Addressee perspective and speaker stance in Duna evidential marking. *Language Typology and Universals* (STUF), 68: 2, 187-210.

San Roque, Lila, S. Floyd and E. Norcliffe. 2015. Evidentiality and interrogativity. *Lingua*. doi:10.1016/j.lingua.2014.11.003.

San Roque, Lila, Simeon Floyd, and Elisabeth Norcliffe (eds.). in press. *Egophoricity*, John Benjamins.

Sillitoe, Paul. 2010. Trust in development: some implications of knowing in indigenous knowledge. *Journal of the Royal Anthropological Institute* 16: 12-30. Wiley Online Library.

Traugott, Elisabeth Close & Richard B. Dasher. 2002. *Regularity in Semantic Change.* Cambridge: Cambridge University Press.

Trevarthen, Colwyn, B. 1979. Communication and cooperation in early infancy: A description of primary intersubjectivity. In M. Bullowa (ed.), *Before Speech*. Cambridge: Cambridge University Press.

Zariquiey, Roberto. 2011. A grammar of Kashibo-Kakataibo. PhD dissertation. La Trobe University, Melbourne, Australia.

Zariquiey, Roberto. 2015. The encoding of addressee's perspective in Kakataibo (Panoan, Peru). *Language Typology and Universals* (STUF), 68: 2, 143-164

Aspects of Engagement in Ku Waru

Alan Rumsey

(Australian National University)

In this presentation I will explore aspects of engagement in Ku Waru, a Papuan language spoken in the Western Highlands of Papua New Guinea. Evans *et al* (in prep.) characterise engagement as 'grammatical means for intersubjective coordination'. They note that, although our understanding of the full panoply of those means remains basic, one of them that has been much studied at least in western European languages is 'the definiteness/ indefiniteness contrasts expressed in article systems'. Ku Waru has a somewhat similar system, but with a wider distributional scope. There are suffixes that are used to mark the discourse status of NPs as either 'definite' (roughly, 'the one that you and I know about') or 'indefinite' (roughly 'one that I know about but you do not'). Examples may be seen in (1) - (3).

(1)   ku   mong-**iyl**   wal-**iyl**-na   pe-ly-m
             money piece-DEF   bag-DEF-LOC be/lie-HAB-3SG
             The coin is in the bag.

(2)   ku   mong-**ti**   wal-**iyl**-na   pe-ly-m
             money piece-IDF   bag-DEF-LOC be/lie-HAB-3SG
             There is a coin in the bag.

(3)   ku   mong-**ti**   wal-**ti**-na   pe-ly-m
             money piece-IDF   bag-IDF-LOC be/lie-HAB-3SG
             There is a coin in a bag.

The definite suffix can also be used on finite verbs, typically with the whole clause included within its scope. The sense that it conveys in that context is similar to the one it has when used on NPs, namely, 'as you and I both know'. This is illustrated by (4) and (5).

(3)   ku   mong-**iyl**   wal-**iyl**-na   pe-ly-m-**iyl**
             money piece-DEF   bag-DEF-LOC be/lie-HAB-3SG-DEF
             The coin is in the bag (as you and I both know).

(4)   ku   mong-**ti**   wal-**iyl**-na   pe-ly-m-**iyl**
             money piece-IDF   bag-DEF-LOC be/lie-HAB-3SG-DEF
             There is a coin in the bag (as you and I both know).

In my presentation at the Workshop I will examine the use of these definite and indefinite markers in videoed interactions between Ku Waru children and adults. I will show that, in keeping with Evans *et al* (in prep.), the use of these markers does indeed figure within an overall process of intersubjective coordination, in which it is tightly coordinated with other aspects of the interaction including: gaze

direction and facial expressions; intonation and prosody; patterns of parallelism of the kind that Dubois (2014) has treated under the rubrics of 'resonance' and 'dialogic syntax'. I will then compare and contrast the workings of engagement in Ku Waru with egophoricity and evidentiality, and show that it overlaps with them in some ways but differs from them in the extent to which it treats the centring of subjectivity as potentially variable, emergent, and distributed across the interaction rather than as prototypically related to the speech roles of speaker and addressee and their alternation across speech-act types.

Abbreviations
DEF   definite
HAB   habitual
IDF   indefinite
LOC   locative

References

DuBois, John W. 2014. Towards a dialogic syntax. *Cognitive Linguistics* 25: 359-410.

Evans, Nicholas R., Henrik Bergqvist, Lila San Roque, Niko Kobepa. in prep. The grammar of engagement. *Language and Cognition*. UK Cognitive Linguistics Association. Cambridge University Press.

Roberto Zariquiey

<pdf>

From shared reference to shared attention: the case of Jaminjung/Ngaliwurru 'you and me'

Eva Schultze-Berndt

This paper explores the implications for the notions of intersubjectivity and engagement of a shared epistemic authority marker which is transparently related to a $1^{st}+2^{nd}$ person pronoun ('you and me'). Such a marker is attested in the Australian language Jaminjung/Ngaliwurru, where it is in paradigmatic contrast with a marker of primary epistemic authority (AUTHOR in press). The marker is restricted to conversational exchanges about a situation (in (1), this is a scene in a picture book) which has just entered the awareness of the speaker and which can simultaneously be accessed by the addressee. It thus simultaneously serves the functions of indicating shared epistemic authority and of establishing joint attention.

> *digirrij=jung   ga-rdba-ny=**mindi** *
> die=RESTR   3SG-fall-PST=EGO+TU
> '(The owl frightened the boy), and he fell down as if dead (or so it appears – you have the same evidence as me)'

Establishing shared attention has been regarded as a paradigm case of intersubjectivity (e.g. Brinck 2008: 132; Verhagen 2008: 309). However, the development of this marker cannot be equated with intersubjectification, at least at the semantic level, since it is precisely the inclusion of both speaker and hearer that is at the core of the meaning of the pronoun in its ordinary use. As will be demonstrated on the basis of discourse examples, the origin of the Jaminjung/Ngaliwurru marker can plausibly be traced to a productive use of clitic pronouns to index a participant that is indirectly affected by the situation. In other words, the clitic pronoun has extended its function from indexing a participant role to marking the holder(s) of knowledge or more specifically, epistemic authority (Bosse et al. 2012; Bergqvist and Kittilä in press). Thus, the relevant notion of intersubjectivity is the change of function from the propositional to the interpersonal level as also discussed by Traugott (2010), which may be more aptly described by the term "engagement".

References

Bergqvist, Henrik and Seppo Kittilä. in press. Person and knowledge: Introduction. In Bergqvist, Henrik and Seppo Kittilä (eds.), Person and knowledge: from participant-role to epistemic marking. *Open Linguistics*.

Bosse, Solveig, Bruening, Benjamin and Yamada, Masahiro. 2012. Affected Experiencers. *Natural Language & Linguistic Theory* 30(4): 1185–1230.

Brinck, Ingar. 2008. The role of intersubjectivity for the development of intentional communication. In J. Zlatev, T. Racine, C. Sinha & E. Itkonen (eds.), *The Shared Mind: Perspectives on Intersubjectivity*, 115-140. Amsterdam: John Benjamins.

AUTHOR. in press. Shared vs. primary epistemic authority in Jaminjung/Ngaliwurru. In Henrik Bergqvist and Seppo Kittilä (eds.), Person and knowledge: from participant-role to epistemic marking. *Open Linguistics*.

Traugott, Elisabeth C. 2010. Revisiting subjectification and intersubjectification. In Kristin Davidse, Lieven Vandelanotte, and Hubert Cuyckens (eds.), *Subjectification, Intersubjectification and Grammaticalization*, 29-70. Berlin: Mouton de Gruyter.

Verhagen, Arie. 2008. Intersubjectivity and the architecture of the language system. In J. Zlatev, T. Racine, C. Sinha & E. Itkonen (eds.), *The Shared Mind: Perspectives on Intersubjectivity*, 307-332. Amsterdam: John Benjamins.

From person to engagement

Henrik Bergqvist
(Stockholm University)

The presentation demonstrates how first person markers may develop into egophoric markers that signal the epistemic authority of the speaker, either as exclusive, or shared with the addressee, resulting in forms of "engagement" (Evans et al. submitted; cf. Landaburu 2007). The latter stage of this development is argued to be an instance of "intersubjectification" (Bergqvist, forthcoming; cf. Traugott & Dasher 2002) where the epistemic perspective of the speaker is extended to encompass that of the addressee. The proposed analysis is based on first hand data from Ika (Arwako-Chibchan, Colombia) and Jaminjung/Ngaliwurru (Mirndi, Australia)

A prominent characteristic of egophoric marking (San Roque et al. in press) is "shiftability", a distributional feature that allows egophoric markers to occur with first and second person subjects in declarative and interrogatives sentences, respectively. Consider example (1) from Kathmandu Newar:

(1) a. *Ji   ana   wanā*
        1S   there   go.EGO
        'I went there.'
    b. *Cha   ana   wanā   lā*
        2S   there   go.EGO   Q
        'Did you go there?'
        (Hale 1980: 95)

In (1a), the epistemic authority belongs to the speaker, whereas in (1b), the epistemic authority is attributed to the addressee. This shiftability is, however, not always required to follow changes in sentence type. In Ika, the egophoric marker is restricted to occur in declarative sentences, but only with epistemic markers that signal asymmetric (*-in*) and symmetric (*-e*) epistemic authority from the perspective of the speaker, an example of engagement (cf. "complex epistemic perspective"; Bergqvist 2012, in press):

(2) a. *(ən=)bunsi-w-in*
        spin.yarn-EGO-speaker.authority
        'I am spinning yarn.'
    b. *nə=bunsi-k-w-e*
        2S=spin.yarn-DIST-EGO-speaker-addressee.authority
        'You are spinning yarn?'
        (Bergqvist 2012: 157)

For Jaminjung/Ngaliwurru, Schultze-Berndt (in press) shows that the exclusive epistemic authority of the speaker is expressed by the clitic *=ngarndi*, whereas shared epistemic authority with respect to events that have not yet been established as part of the common ground, is expressed by *=mirndi*.
Diachronically, *-w* in Ika and *=ngarndi/=mirndi* in Jaminjung/Ngaliwurru developed from first person markers. As such, they arguably instantiate a process of perspectivization and subsequent "intersubjectification" where the speaker's epistemic authority (based on his/her involvement, as signaled by subject person) is extended to include that of the addressee. This development is made possible by the dual nature of person markers to signal argument identity and semantic role. The implied epistemic component in person marking stems from the semantic role(s) associated with a given marker and its distributional characteristics with respect to predicate semantics.
The proposed presentation details how the component features of 'person' may result in the development of markers of epistemic authority (i.e. egophoric marking) and how a subsequent process of intersubjectification allows for such markers to also encode engagement semantics.

References
Bergqvist, Henrik. 2012. Epistemic marking in Ika (Arwako). *Studies in Language* (News from the field) 36:1. John Benjamins, 151-178.
Bergqvist, Henrik. in press. Egophoric marking in interrogatives. In San Roque, Lila, Simeon Floyd, and Elisabeth Norcliffe (eds.), *Egophoricity*. Amsterdam: John Benjamins.

Bergqvist, Henrik. forthcoming. Intersubjectification revisited: a cross-categorical perspective. In Guentcheva, Zlatka (ed.), *Epistemic modality, evidentiality and beyond*, Empirical Studies in Language Typology, Mouton De Gruyter.

Evans, Nicholas R., Henrik Bergqvist and Lila San Roque, submitted. The grammar of engagement. *Language and Cognition*. Cambridge University Press.

Hale, Austin. 1980. Person Markers: Finite Conjunct and Disjunct Verb Froms in Newari. *Papers in South-East Asian Linguistics* 7. 95-106.

Landaburu, Jon. 2007. La modalisation du savoir en langue Andoke (Amazonie Colombienne). In Guentchéva, Zlatka and Jon Landaburu (eds.) *L'énonciation médiatisée II - Le traitment épistémologique de l'information: illustrations amérindiennes et caucasiennes*, pp. 23-47, Paris: Édition Peeters.

San Roque, Lila, Simeon Floyd, and Elisabeth Norcliffe (eds.). in press. *Egophoricity*, John Benjamins.

Schultze-Berndt, Eva. in press. Shared vs. primary epistemic authority in Jaminjung/Ngaliwurru. In Bergqvist, Henrik and Seppo Kittilä (eds.), Person and knowledge: from participant-role to epistemic marking. *Open Linguistics*. De Gruyter Open. https://www.degruyter.com/page/1316

Traugott, Elisabeth Closs & Richard B. Dasher. 2002. *Regularity in Semantic Change*. Cambridge: Cambridge University Press.

How to Show Things with Verbs: The Marind Absconditive

Bruno Olsson

(Nanyang Technological University, Singapore)

In this talk, I will present some ideas about the uses of a verb form labeled the Absconditive (cf. Latin *absconditus* 'hidden, concealed') in Coastal Marind, a Papuan language of Southern New Guinea. The talk will be based on ca. 10 hours of video recordings made during 12 months of fieldwork. The Absconditive consists of the substrings *V*- and *h*/*p*-, glossed as seperate morphemes: the vowel *V*-alternating according to gender agreement (I-IV), and *-h-* or *-p-* marking PROXimal vs. DISTal deixis. In his grammar of the language, Drabbe identifies the Absconditive as the present tense form of the verb (1955: 37). The ubiquity of such 'present tense' forms in the numerous (constructed) exemplary paradigms given by Drabbe stands in sharp contrast to their almost complete absence in the 9 texts provided in the grammar. Although it is correct that the use of the Absconditive is restricted to contexts with present time reference, the picture emerging from recent fieldwork suggests a much narrower functional range, having at its core the function of (re-)directing the attention of the addressee to a referent or state-of-affairs that is outside her current focus of attention. This use provides the rationale for the label 'Absconditive'. It is most conspicuous in situations involving an addressee who is physically oriented away from the referent about which the speaker is making a statement. Such an utterance is in (1), from a recording of some children interacting around a well.

(1)   Speaker looking down into a well, addressing his older brother, standing facing away from well

ade! *kosi-awe* ***u-p-Ø-*** *kw-aɣita*   27-08-2015_1_0006

wow little-fish(II) II-dist-3sg.a- iness-run.around

'Oh wow! A little fish is swimming around in there!'

Related uses of the same marking include e.g. the assertion of information that contradicts presuppositions held by the addressee about some present state-of-affairs. By contrast, we find other marking options such as the Presentative prefix **hat-** (roughly equivalent to French *voilà/voici*) expressing that attention to a referent is shared by speaker and addressee. A potential obstacle for accounts in terms of (non-)alignment of attention is a number of counterexamples in which the Absconditive is used despite apparent shared access to the referent, as well as cases where non-Absconditive forms (such as the Presentative) are used despite clear non-alignment of attention holding between participants. I will argue that such uses can be understood as speakers exploiting the knowledge relationships implied by a verb form to achieve certain interactional goals. I will also discuss uses of the Absconditive that appear unrelated to alignment of attention, notably its use in certain habitual contexts and in certain relative clause constructions. The findings will be situated w.r.t. research into interactional aspects of deixis (e.g. Özyürek 1998) and engagement in grammar (Evans et al. in prep.).

References

Drabbe, Peter. 1955. *Spraakkunst van het Marind: Zuitkust Nederlands Nieuw-Guinea*. Studia Instituti Anthropos 11. Wien-Mödling: St. Gabriël.

Evans, Nicholas, Henrik Bergqvist, and Lila San Roque. in prep. "The grammar of engagement". Invited article to be submitted to *Language and Cognition*.

Özyürek, Asli. 1998. "An analysis of the basic meaning of Turkish demonstratives in face-to-face conversational interaction". In: *Oralité et gestualité: Communication multimodale, interaction*. Ed. by Serge Santi, Isabelle Guaïtella, Christian Cavé, and Gabrielle Konopczynski. Paris: Harmattan, pp. 609–614.

Diverging engagement expressed by a demonstrative ?

Françoise Rose

(Dynamique Du Langage, CNRS/Université Lyon2)

Engagement is an emerging notion that participates to the domain of *intersubjectivity* (Traugott 2010) and covers the epistemic perspectives of both speech-act participants (Evans et al. in prep). The speaker's commitment or awareness regarding a state of affair can be congruent or divergent from what (s)he supposes the addressee's commitment or awareness is. Up to now, only a few languages have been attested to express engagement in a specific category of morphemes (Landaburu 2007, Berkvist 2016).

On the basis of textual data collected in the field, this paper will discuss whether or not Mojeño Trinitario (Arawak, Bolivia) is a language where the notion of engagement is expressed by one of seven demonstrative suffixes (these suffixes combine with person formatives to build demonstrative words). Three of these suffixes (*-ka, -ro, -na*) encode a speaker-oriented three-distance contrast (Diessel 1999). The other four (*-kni, -ngi, -kro, -ko*) are less specific about location, involve non-visual evidence at utterance time and vary in terms of strength of assertion of the localization. They are organized along a continuum of reliability of evidence for localization. Demonstratives are rarely described as expressing epistemicity (Jacques to appear).

Among these suffixes, the meaning of *-kro* is very difficult to define. It is essentially found in direct speech, and refers to a non-visible entity which localization is only weakly ascertained, for the evidence is not reliable. *-kro* could maybe be described in terms of engagement. More specifically, in assertions, it would indicate that the speaker's awareness is strong, contrarily to that supposed of the addressee. In questions, it would express the doubts of the speaker and the presupposition that the addressee knows better. (1) is an example of assertion involving *-kro*: the speaker tells how a woman indicated me a route that I did not know.

(1)   **jo-kro**-jo-o'i   **p-jo-kro**   avenidaprincipal
       NH-POT.LOC-COP-IPFV   DEM-NH-D_ENG   main_avenue
       'There is that main avenue...'

A question is exemplified in (2) : the cricket asks his host, Maria, about the presence of Martin: he suspects it from a previous mention by Maria. Maria's answer follows in (3) and could also indicate that she has better evidence of Martin's presence than the cricket does.

(2)   ma-**kro**-jo-o'i ?
       M♂-POT.LOC-COP-IPFV
       'Is he around?'
(3)   Ñi-**kro**-jo-o'i   t-ko-yumrugi
       M♀-POT.LOC-COP-IPFV   3-MID-hide
       'He is here, he is hidden.

This paper will discuss how a definitive statement on the « engagement meaning » of a morpheme is difficult to posit on the basis of textual data. I will show possible counterexamples to the fact that the speaker knows better than the addressee in assertions involving *-kro*, or that the addressee is seen as knowing better than the speaker in questions involving *-kro*. This paper thus participates to the emergent exploration of the notion of engagement within the little described domain of demonstratives conveying epistemic values. The paper concludes on the idea that since demonstratives are deictic expressions which are used to orient and focus the hearer's attention on objects or locations in the speech situation" (Diessel 1999:2), they may take part in intersubjectivity and engagement.

References

Adamou, Evangelia 2011. Temporal uses of Definite Articles and Demonstratives in Pomak (Slavic, Greece), in *Lingua* 121(5): 871-889.

Bergqvist, Henrik. 2016. Complex epistemic perspective in Kogi (Arwako). International Journal of American Linguistics, 82:1, 1-34.

Diessel, Holger 1999. *Demonstratives: Form, Function, and Grammaticalization*, Typological Studies in Language 42, Amsterdam: John Benjamins.

Evans, Nicholas R., Henrik Bergqvist, and Lila San Roque. in prep. The grammar of engagement. *Language and Cognition*. UK Cognitive Linguistics Association. Cambridge University Press.

Jacques, Guillaume. to appear. "Non-propositional evidentiality", in *The Oxford Handbook of Evidentiality*, Alexandra Aikhenvald (ed), Oxford: Oxford University Press.

Landaburu, Jon. 2007. La modalisation du savoir en langue Andoke (Amazonie Colombienne). In Guentchéva, Zlatka and Jon Landaburu (eds.) *L'eénonciation médiatisée II - Le traitment épistémologique de l'information: illustrations amérindiennes et caucasiennes,* pp. 23-47, Paris: Édition Peeters.

Meira, Sérgio. 1999. A Grammar of Tiriyó, PhD., Rice University, Houston.

Traugott, Elisabeth. 2010. Revisiting subjectification and intersubjectification, in *Subjectification, Intersubjectification and Grammaticalization*, Kristin Davidse, Lieven Vandelanotte and Hubert Cuyckens (eds), Berlin: DeGruyter.

Engagement in Kogi demonstratives

Dominique Knuchel
(University of Bern)

The aim of this talk is to account for the role of 'addressee-attention' in the demonstrative system of Kogi, a Chibchan language of Colombia. The investigation is based on first-hand language data collected in elicitation and naturally occurring speech.

It is commonly assumed that the semantic distinctions found in demonstrative systems relate to factors of location or visibility of a referent (cf. Diessel 1999). However, recent studies of certain demonstrative systems suggest that "addressee-attention" is another relevant factor in referring to objects in space. This has, for example, been observed in Turkish, where the form *şu* of a set of three demonstratives is used when the speaker assumes that the addressee has yet to divert his attention to the object in question (Özyürek & Kita, n.d.). As Evans et al. (submitted) propose, these semantics can be analyzed as an instance of engagement, i.e. the encoding of a speaker's assumptions about the knowledge or attention of their interlocutor.

For Kogi, Bergqvist (2016) shows that engagement is encoded in verbal auxiliaries, which take different prefixes that express a speaker's assumptions regarding a-/symmetries in the distribution of knowledge among the speech-act participants. This talk will demonstrate that engagement semantics are also found in demonstratives.

At first sight, the three nominal demonstratives *hehĩẽ́*, *twehĩẽ́* and *kwehĩẽ́* appear to encode contrasts in distance (i.e. 'close to speaker', 'close to addressee' and 'distant from both'). However, some uses of *twehĩẽ́* suggest that distance is not the sole deciding factor. In the following example, which was provided by a consultant in the discussion of different demonstratives, two speakers are in the same place and talking about objects that are distant.

(1) A: *Kwehĩẽ́!*   'That one over there!'   [pointing out one of the objects]
     B: *Kwehĩẽ?*   'That one over there?'   [checking whether the B has identified the right object]
     A: *Aha, twehĩẽ́*   'Yes, that one'   [confirming that B has identified the one A pointed out]

In this context, *twehĩẽ́* is used, independent of physical distance, to signal that joint attention is established.

Furthermore, *twehĩẽ́* is not accepted in contexts in which the addressee has not yet shifted the attention to the object even though it is in her vicinity. For example, in a situation where the object is located behind the addressee, a relative clause containing a local adverbial demonstrative must be used:

(2) *plato twéka   té   nukká   na-gé-gwa!*
     plate addr.prox stand   be.located   1sg-hand-imp.sg
     'Hand me the plate that is there (near you)!'

Once the addressee has shifted her attention to the object and asks *hehĩế*? 'This one (near me)?', the speaker may confirm her choice with *aha, twehĩế* 'Yes, that one (near you)'.

Based on these observations, it becomes evident that a speaker takes into account the attention of the addressee when referring to objects in space. The demonstrative *twehĩế* can only be used when joint attention is established. If this is not the case, another strategy must be employed: either a different nominal demonstrative or a relative clause with an adverbial demonstrative.

References

Bergqvist, H. 2016. Complex epistemic perspective in Kogi (Arwako). *International Journal of American Linguistics*, 82:1, 1-34.

Diessel, H. 1999. *Demonstratives: Form, function, and grammaticalization.* [Typological Studies in Language 42]. Amsterdam: John Benjamins.

Evans, N. R., H. Bergqvist & L. San Roque. Submitted. The grammar of engagement. *Language and Cognition.* UK Cognitive Linguistics Association. Cambridge University Press.

Özyürek, A. & Kita, S. n.d. *Joint attention and distance in the semantics of Turkish and Japanese demonstrative systems.* Unpublished manuscript.

Domains of definiteness: Towards a social-technological participation grammar of Ungarinyin engagement

Stef Spronck

(University of Leuven)

The Ungarinyin 'definite subject' prefix illustrated in (1b) indicates that the subject cross-referenced by the complex verb *balya urrumara* 'he went' is coreferential with the subject of the immediately preceding clause (1a).

(1a) birlilu warndij woni
      birlilu warndij wa_1-wu-ni
      raft   make   3n w .O:3sg.S-act.on-PST
      'He made a raft'
(1b) di   balya   urrumara
      di   balya a_1-$irra_2$-ma-ra
      then   go   3msg-DS-do-PST
      'Then he went away' (Rumsey, 1978: 260)

Based on original fieldwork recordings of the language, and archival materials of Ungarinyin (Australian, Worrorran), in this paper I start by demonstrating that the general use of the Ungarinyin definite subject (DS) can be largely predicted on the basis of the model of discourse reference proposed by Kibrik (2011), shown in figure 1.
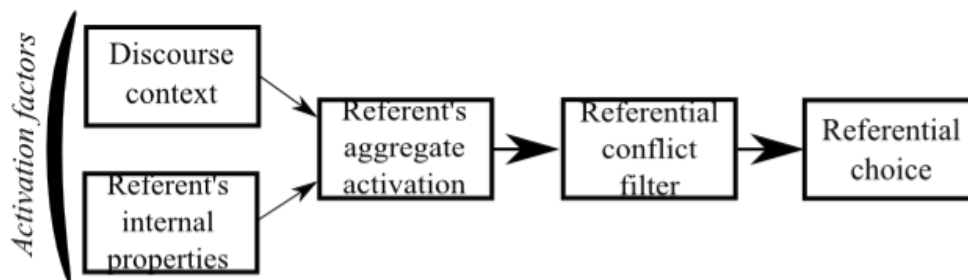
Figure 1 Kibrik's (2011) model of referential choice

Kibrik's (2011) model specifies factors contributing to a referent being 'activated', and the DS appears to mark activated referents when more than one potential referent is available, inciting 'referential conflict' (also cf. van Gijn 2016). But the model also leads to overgeneralizations: the DS shows exceptions to the predicted referential choice.

The notion of 'engagement' offers an interesting new way to account for these apparent exceptions. I argue that in cases where the DS is inexplicably present or absent, based on the referential choice model, the epistemic authority (in the sense of Bergqvist, 2015), as well as the type of evidential or modal participant (Spronck 2016) is central to accounting for the realization of the DS.

This leads me to a more general appreciation of 'engagement' in grammar. Building on the conceptualization of linguistic meaning in Dor (2015), I place the 'atypical' interpretation of the DS (i.e. the use of the marker not predicted by the model of referential choice) in a broad classification of grammatical function shift. Within this classification, engagement categories serve to *instruct an addressee to imagine a participant class, associated with a conventional set of grammatical categories, domains and experience types*.

The approach advocated, I argue, allows us to constructively connect the analysis of engagement with more traditional notions in the literature; characterize and explain the continuity between engagement grammar and constructions (apparently) without an engagement function; and make more specific claims about the relation between grammar and cognition, beyond broad and elusive notions such as 'memory' or 'social cognition'.

References

Bergqvist, H. (2012), 'Epistemic marking in Ika (Arwako)', *Studies in Language* **36**(1), 154–181.

Dor, D. (2015), *The Instruction of Imagination: Language as a Social Communication Technology*, Oxford etc.: Oxford University Press.

Gijn, R. van (2016), Switch reference: An overview, *in* Gijn, R. van and J. Hammond, *Switch Reference 2.0, Amsterdam/Philadelphia: John Benjamins.*

Kibrik, A. A. (2011), *Reference in Discourse*, Oxford etc.: Oxford University Press.

Rumsey, A. (1978), A Grammar of Ungarinjin with Special Reference to the Structure of Discourse, PhD thesis, The University of Chicago.

Spronck, S. (2016), Evidential fictive interaction (in Ungarinyin and Russian), *in* E. Pascual & S. Sandler, eds, 'The Conversation Frame: Forms and Functions of Fictive Interaction', Amsterdam/Philadelphia: John Benjamins, pp. 255–275.

WORKSHOP 10

First language acquisition in the languages of the world: Differences and similarities

Damián E. Blasi, Jekaterina Mazara, & and Sabine Stoll

(Department of Comparative Linguistics, University of Zürich and Department of Linguistic and Cultural Evolution, Max Planck Institute for the Science of Human History; Department of Comparative Linguistics, University of Zürich; & Department of Comparative Linguistics, University of Zürich)

Children face a myriad of challenges when learning their first language(s), ranging from extracting meaningful units out of a noisy speech stream, attaching labels to changing referents and mastering the quirks of syntax and morphology inherent to the over 7000 languages spoken in the world today. A fundamental question in first language acquisition is whether the resources and the strategies used by children learning language are shared across languages, or whether they are language-specific.

General properties of the input seem to be uniformly available for all children regardless of their target language. For instance, other things being equal, more frequent linguistic units will feature in children's repertoire earlier (Ambridge et al. 2015). The conditional frequency of the arrangement of units – i.e., which elements follow or precede others – for word segmentation (Pelucchi, Hay & Saffran 2009) as well as the distributional properties of linguistic units (Hills 2013) seem to have a similarly broad scope. In addition to the statistical properties of the input, species-wide behaviors, like the tendency to interpret pointing gestures as a communicative act, the drive towards cooperative communication (Tomasello 2009) and innate perceptual biases (e.g. towards syllabic well-formedness, Johnson et al. 2003) constitute the best generalizations in the field of first language acquisition.

In addition to these general strategies, individual languages might provide easier or more salient pathways to the acquisition of specific features. Word order cues, for instance, might be more reliable (and hence more useful) for specific tasks in some languages than in others, for instance when determining agency (Bates et al. 1984, Chan, Lieven and Tomasello 2009) or when learning properties of objects (Ramscar et al. 2010). Affixation preference (Gervain and Erra 2012) and stress allocation (Tyler and Cutler 2009) might bias the attention towards one particular word edge.

This divide is, however, discussable. A considerable amount of the research aimed at capturing universal learning strategies has been conducted in standard European languages (and most saliently, English) and some of the mechanisms that are deemed to be language-specific might be artifacts stemming from the lack of a comparative perspective on first language acquisition and data sparsity.

The goal of this workshop is to bring together specialists on first language acquisition that conduct research either on:

1) the acquisition of language specific features (such as grammatical categories or morphological complexity) in relation to general acquisition strategies.
2) languages underrepresented in the literature, which could help understand the limits and the plasticity of language-independent learning mechanisms as well as expanding the list of language-specific strategies or
3) comparative settings, contrasting the same or similar phenomena in a range of languages.

References

Bates, E., MacWhinney, B. Caselli, C., Devescovi, A. Natale, F. & Venza, V. (1984). A cross-linguistic study of the development of sentence interpretation strategies. *Child Development* 55. 341–354.

Ambridge, B., Kidd, E., Rowland, C. F., & Theakston, A. L. (2015). The ubiquity of frequency effects in first language acquisition. *Journal of Child Language*, *42*(02), 239-273.

Chan, A., Lieven, E., & Tomasello, M. (2009). Children's understanding of the agent-patient relations in the transitive construction: Cross-linguistic comparisons between Cantonese, German, and English. *Cognitive Linguistics*, *20*(2), 267-300.

Dressler, W. (2012). On the acquisition of inflectional morphology: Introduction. *Morphology, 22.* 1-8.

Gervain, J., & Erra, R. G. (2012). The statistical signature of morphosyntax: A study of Hungarian and Italian infant-directed speech. *Cognition*,*125*(2), 263-287.

Hills, T. (2013). The company that words keep: comparing the statistical structure of child-versus adult-directed language. *Journal of Child Language*,*40*(03), 586-604.

Johnson, E. K., Jusczyk, P. W., Cutler, A., & Norris, D. (2003). Lexical viability constraints on speech segmentation by infants. *Cognitive Psychology*,*46*(1), 65-97.

Pelucchi, B., Hay, J. F., & Saffran, J. R. (2009). Statistical learning in a natural language by 8-month-old infants. *Child Development*, *80*(3), 674-685.

Ramscar, M., Yarlett, D., Dye, M., Denny, K., and Thorpe, K. (2010). The effects of feature-label-order and their implications for symbolic learning. *Cognitive Science*, 6(34), 909-957.

Stoll, S., Mazara, J. &, Bickel, B**.** (in press). The acquisition of polysynthetic verb forms in Chintang. In Fortescue, M., Mithun, M., and Evans, N. (Eds.) *Handbook of Polysynthesis.* Oxford: Oxford University Press.

Tyler, M. D., & Cutler, A. (2009). Cross-language differences in cue use for speech segmentation. *The Journal of the Acoustical Society of America*,*126*(1), 367-376.

Tomasello, M. (2009). *Constructing a language: A usage-based theory of language acquisition*. Harvard University Press.

Early word learning environments: Evidence from Mayan and Papua New Guinean households

Marisa Casillas, Penelope Brown, & Stephen C. Levinson
(Max Planck Institute for Psycholinguistics)

Cross-linguistic work on early language development has long fueled the debate on whether early word leaning is universally easier for object words compared to predicate words (e.g. Gentner, 1982; Choi & Gopnik, 1995; Tardif, 1996). Arguments *in favor* of a universalist account have cited objects' more identifiable perceptual boundaries and relative conceptual simplicity. Arguments *against* a universalist account have focused instead on linguistic and cultural conventions that may lead to a greater relative focus on actions in some communities (but not others).

In a separate stream of research—one primarily focused on English-speaking children—researchers have shown that live interaction plays an important role in how children learn words. The coordination of visual attention and referential information during naming events impacts moment-to-moment word learning (e.g., Yu & Smith, 2013; Trueswell et al., 2016) and, over the course of learning, dynamic interactive characteristics of child-directed speech and even the characteristics of the visual environment impact the words children and adults use (Roy et al., 2012; Clerkin et al., 2017). These

mechanisms are surely at play when children learn about both predicates and objects, but they have yet to be tested in household contexts with (a) few child-specialized objects (i.e., few toys and children's books), (b) several primary caregivers, and (c) infrequent child-directed speech. The present work adds a new ethnographic perspective to this debate on the nouns-before-verbs hypothesis: we explore how the affordances of a child's physical environment might impact the way children and adults talk about objects and actions.

We investigate the noun bias in children from two linguistic communities—Tzeltal (Mayan; Mexico) and Yélî Dnye (isolate; Papua New Guinea)—to ask which objects and contexts likely drive early noun learning in these settings. We collected daylong (9–10 hour) recordings of everyday life from more than 50 children under age 48 months in each site. During recording, children wore a chest-mounted photo camera (2–4 photos per minute) and audio recorder. From these data, we can see what the child does and who he or she talks to on a typical day, from the child's own perspective. We then annotate each photo for a range of features, including the child's manual activities and the number of potential adult and child interactors present. Annotation is ongoing, but early analysis of the Mayan children's manual activities suggests that food objects and family members are among the first relevant object types in children's environments, later followed by household objects once children begin to participate in daily work activities (e.g., cleaning and food preparation). We find little overall evidence of play with child-specialized objects. We discuss these findings with respect to how environmental features might drive the form of their early word-learning biases.

References

Choi, S. & A. Gopnik (1995). Early acquisition of verbs in Korean: A cross-linguistic study. *Journal of Child Language 22*(3), 497–529.

Clerkin, E., Hart, E., Rehg, J., Yu, C., & Smith, L. (2017). Real-world visual statistics and infants' first-learned object names. *Phil. Trans. R. Soc. B 372*, 20160055.

Gentner, D. (1982). Why nouns are learned before verbs: Linguistic relativity versus natural partitioning. *U.S. Department of Education Technical Reports* (No. 257).

Roy, B., Frank, M., & D. Roy (2012). Relating activity contexts to early word learning in dense longitudinal data. *Proceedings of the 34th Annual Conference of the Cognitive Science.*

Tardif, T. (1996). Nouns are not always learned before verbs: Evidence from Mandarin speakers' early vocabularies. *Developmental Psychology 32*(3), 492–504.

Trueswell, J., Lin, Y., Armstrong, B., Cartmill, E., Goldin-Meadow, S., & Gleitman, L. (2016). Perceiving referential intent: Dynamics of reference in natural parent–child interactions. *Cognition*, 148, 117–135.

Yu, C., & Smith, L. (2013). Joint attention without gaze following: Human infants and their parents coordinate visual attention to objects through eye-hand coordination. *PloS one 8*(11), e79659.

The acquisition of evidentiality in Yukatek Maya

Barbara Pfeiler

(Universidad Nacional Autónoma de México)

Evidentials are a central part of Mayan grammar (AnderBois 2014, Curiel 2016). Most Mayan languages have rather robust evidential systems for expressing up to four semantic contrasts: non-specified source of information, reported information, quotations, and information inferred through the senses. Evidentials in Yukatek Maya (YM) are not only used for expressing the source of information,

but for a number of pragmatic and metapragmatic uses such as the marking of narrative speech-genres, the expression of vividness, or the indexation of climaxes. (Lucy 1993b, Hanks 1993).

This study deals with the acquisition of the grammatical devices for expressing quoted and reported sources of information in YM. Spontaneous longitudinal data of two children between 1;1 and 3;3 and cross-sectional narrative data of three schoolchildren between 5 and 8 have been analyzed.

Clauses encoding information as the product of hearsay are marked with a reportative morpheme as in (1). This means that the utterance in the example was not attested by the speaker, but reported by some other mean.

(1)   yàan   b'in   u-tàal
        aux   report   3erg-come
        'He is to come. So it is said.'
        (Hanks 1990: 213)

B'in occurs immediately after the verbal auxiliary, although it may also occur in sentence-final position. *B'in* cannot be inflected for person, nor can it be accompanied by an oblique phrase encoding an addressee.

The quotative *k-ih* is a defective verb with the meaning of 'says.he' (Lehmann 2016). As shown in (2) it can be followed by a dative compliment.

(2)   yàan   im-bin   k-ih   t-en
        aux   1erg-go   quot-3abs.sg   dat-1abs.sg
        '"I've gotta go," she (he) said to me.'
        (Hanks 1990: 207)

Unlike standard verbs, the quotative *k-* cannot mark for tense, aspect or mood. Furthermore, it cannot be questioned, negated or adverbially modified in any way to qualify the utterance it reports. Obligatorily the quotative follows the quoted discourse.

The results show that in child-directed speech, reports and quotations are used for expressing source of information, but in particular for prompting the children's utterances or making them attend to specific objects. Caregivers use them in the context of prompts especially with children at earlier ages. Their number decreases when children get older.

The longitudinal data of early child speech reveal Yucatec children manage to understand the prompt *k-ech(-ti')* 'you should say (to her)' in CDS before using it. The children respond to the prompted utterances with partial success (omitting part of the verb phrase), but never repeat the prompts heard in the input, as shown in (3).

(3)   Sandi (2;3.8)
        MOT: *Aw-ooch   k-ech-ti'*
              2poss-food   quot-2abs.sg- dat.3abs.sg
        'Your food, you should say to it.'
        SAN: *Och   mi'ix   je'ela'*
              food   cat   dem
        'Cat, here it is (your) food.'

Quotatives and reportatives used as a true evidential expressing source of information emerge around age 2;0. The earliest contrastive use of a quotative and a reportative occured at 2;9.

In comparison with other languages YM children use quotatives froms 2;0 on, i.e. as early as in Tojolabal Maya (Curiel 2016), Korean (Choi 1991) and Turkish (Aksu-Koç, Balaban & Alp 2009). In these languages evidentials emerge much earlier than in Bulgarian (Fitneva 2008). YM children distinguish between the use of the quotative as prompt and as a marker of source of information. The fact, that both forms, *k-ech(-ti')* 'you should say (to her)' and *k-ih* 'says.he' are distinct phonologically and pragmatically allow children to distinguish them easily.

References

Aksu-Koç, Ayhan, Hale Ögel-Balaban & İ. Ercan Alp. 2009. Evidentials and source knowledge in Turkish. *New Directions in Child and Adolescent Development* 125. 13-28.

AnderBois, Scott. 2014. On the exceptional status of reportative evidentials. *Proceedings of Semantics and Linguistics Theory* 24. 234-254.

Choi, Soonja. 1991. Early acquisition of epistemic meanings in Korean: A study of sentence ending suffixes in the spontaneous speech of three children. *First Language* 11. 93-119.

Curiel, Alejandro. 2016. *Estructura narrativa y evidencialidad en tojolabal* (Narrative structure and evidentiality in Tojolabal). Mexico City: Universidad Nacional Autónoma de México dissertation.

Fitneva, Stanka. 2008. The role of evidentiality in Bulgarian children's reliability judgements. *Journal of Child Language* 35. 845-868.

Hanks, William F. 1993. Metalanguage and pragmatics of deixis. In John Lucy (ed.), *Reflexive language. Reported speech and metapragmatics*, 127-157. Cambridge: Cambridge University Press.

Lucy, John A. 1993b. Metapragmatic presentationals: reporting speech with quotatives in Yucatec Maya. In John Lucy (ed.), *Reflexive language, reported speech and metapragmatics*, 91-125. Cambridge: Cambridge University Press.

First language acquisition of epistemic modality in typologically different languages: Evidence from Estonian and Russian

Victoria V. Kazakovskaya & Reili Argus
(Russian Academy of Sciences & Tallinn University)

The acquisition of epistemic modality (*EM*) in typologically different languages has only been studied fragmentarily so far [1]. This study is an attempt to carry out a more detailed comparative investigation of the Finno-Ugric (Estonian, agglutinating) and East Slavic (Russian, inflecting) languages, in which the repertoire of epistemic markers / modals (so-called sentence adverbials, e.g. *maybe*, *perhaps*, *of course*) is similar, but evidentiality has a varying degree of grammaticalisation.
The longitudinal naturalistic data of 6 typically developing monolingual children (1;3–6;2), three from Estonian and three from Russian middle SES families, was analysed in relation to EM acquisition (173 hours of recorded 'caregiver – child' dialogues, transcribed and coded in CHILDES [2]).

Our usage-based study has two main goals: to demonstrate which semantic type of EM (certainty vs. uncertainty) emerges first in the two languages and to detect differences in the acquisition of epistemic markers by investigating the role of their frequency (in lemmas/types and tokens) and other system language factors in the process of acquisition. We will particularly focus on the comparisons between: frequency and the cognitive complexity of EM (connected with the child's theory of mind)

in comparison with deontic modality; frequency and 'semantic force' (high, middle, low) of markers; frequency ('lexical force' [3]) of markers in child-directed speech (*CDS*) and the order of their emergence in child speech (*CS*); early repertoires of certainty and uncertainty and their development; the emergence of markers and the mean length of utterance (*MLU*) in CS; the emergence of markers and the development of personal deixis in CS; the emergence of markers and the illocutive type of sentences; the emergence of markers and temporal characteristics of utterances.

Comparison of the systems of EM has shown that the category of EM is organized quite similarly in the two languages, despite strong typological differences. Estonian and Russian children acquire EM before evidentiality (e.g. quotative in Estonian or parenthetical phrases in Russian), but after deontic and dynamic modalities. In both languages the first method of expressing EM was lexical (or lexical and grammatical in Russian) and uncertainty was an early and dominating semantic sphere (in contrast to Japanese, Korean, Turkish, English, Cantonese and Quechua [4, 5]). The frequency of markers in CDS has a strong influence on the order of emergence of markers in CS (in contrast to Korean [6]), which can be considered to support one of the main ideas of usage-based approaches. The study has also demonstrated some differences in the values of MLU at the age when children started to use first epistemic modals.

The paper discusses, along the results, possible reasons why Estonian and Russian children begin epistemic marking with explicit uncertainty (which breaks one of the typology universals) [4], why Estonians need longer sentences to start to use EM for describing situations involving 3rd person pronouns and why they use a bigger range of modals expressing middle degree of certainty, while Russians prefer markers of high degree. The strongest correlation was found between frequency of markers and pragmatic factors. We could suppose that wealth, frequency, lexical force and the pragmatics of epistemic modals, as reflected in CDS, are better typological predictors of early emergence and diverse repertoire of EM in CS than general morphological typology. However, our hypothesis requires further verification using various language data.

References
[1] Kazakovskaya, V., Reili, A. 2016. Acquisition of epistemic marking in Estonian and Russian. *Eesti Rakenduslingvistika Ühingu aastaraamat* 16, 57–80.
[2] MacWhinney, B. 2000. The CHILDES project. Tools for analyzing Talk. Electronic edition. Part 1: The CHAT transcription format.
[3] Bybee, J. 1995. Regular Morphology and the Lexicon. *Language and Cognitive Processes* 10 (5), 425–455.
[4] Matsui, T. 2014. Children's Understanding of Linguistic Expressions of Certainty and Evidentiality. In *Pragmatic Development in First Language Acquisition*, D. Matthews (ed.), 295–316. Amsterdam: John Benjamins Publishing Company.
[5] Hickmann, M., Bassano, D. 2016. Modality and Mood in First Language Acquisition. In *The Oxford Handbook of Modality and Mood,* J. Nuyts & J. van der Auwera (eds), 430–447. Oxford: Oxford University Press.
[6] Choi, S. 2006. Acquisition of Modality. In *The Expression of Modality*, W. Frawley (ed.), 141–171. Berlin: Mouton de Gruyter.

Noun and verb acquisition in young Wichi children: New evidence from an indigenous Amerindian community

Andrea Taverna & Sandra Waxman

(Consejo Nacional de Investigaciones Científicas y Técnicas, Argentina & Northwestern University)

Is the noun advantage in early language development universal to all human languages, or does it reflect specific characteristics of the particular language being acquired? Addressing this question requires careful examination of lexical acquisition in diverse languages, especially those in which it has been proposed that verbs enjoy a relatively privileged status in the input (e.g., Choi & Gopnik, 1995; de Léon, 1999; Stoll, et al., 2012; Tardif et al., 1997;Waxman, et al, 2013 for a review). Here, we provide new evidence from young children acquiring Wichi, the native language of an indigenous group living in Argentina's Chaco Forest. In Wichi, nouns and verbs are the major grammatical forms; because adjectives are not a distinct grammatical form, verbs describe not only events and activities, but also states and properties. As a result, as in other "verb-heavy" languages, verbs are more prominent in the input than in languages like English. Moreover, in Wichi, as in other typologically-related languages, verbs are morphologically more complex than nouns (Nercesian, 2014). How does this combination of input factors shape lexical acquisition in this understudied language? To address this, we adopt a two-pronged approach. First, we consider noun:verb ratios (number of nouns divided by total number of nouns and verbs) in young Wichi children's lexicon using two measures: a) vocabulary inventories (completed on 19 children ranging from 12 to 48 months), and b) communicative interchanges (completed on 8 Wichi children and their mothers, recorded longitudinally in their natural settings at least twice between 14 and 48 months). Second, we identify the noun:verb ratio in adult speech in these communicative interchanges. Preliminary results offer three new insights. First, analyses of children's vocabulary inventory show: (1) a high noun:verb ratio at different developmental points from 14 to 48 months; (2) a decrease in the magnitude of noun: verb ratio from 14 to 48 months, which is correlated with vocabulary increase ($r = .611$, $p = .005$, $N = 19$). Second, longitudinal analyses of 3 children's vocabularies derived from their naturalistic communicative exchanges confirm this pattern for both, *type* ($r = .87$, $p = .004$, $N = 8$) and *token* ($r = .6$, $p = .08$, $N = 8$). Finally, preliminary analyses of adult speech to these three children reveal a low noun/verb ratio at all ages. Together, these preliminary results suggest that nouns outpace verbs in Wichi early vocabulary; that the noun:verb ratio decreases gradually from 12 to 48 months, bringing it into closer alignment with the adult ratio, in spite of the complex morphology of verbs. We interpret these results in a strongly development framework, highlighting the importance of universal features of lexical development and the shaping role of the language being acquired.

References

Choi, S., &Gopnik, A. (1995). Early acquisition of verbs in Korean: a cross-linguistic study. *Journal of Child Language* 22, 497–529.

de Léon, L. (1999). Verb roots and caregiver speech in early Tzotzil (Mayan) acquisition. In B. Fox, D. Jurafsky, & L. Michaelis (Eds.) Cognition and function in language (pp. 99–119). Stanford: CSLI.

Nercesian, V. (2014).*Wichilhomtes. Estudio de la gramática y la interacción fonología-morfología-sintaxis-semántica*. München: LINCOM

Stoll, S.,Bickel, B., Lieven, E., Banjade, G., Bhatta, T. N., Gaenszle, M., Paudyal, N. P., Pettigrew, J., Rai, I. P., Rai, M., &Rai, N. K. Nouns and verbs in Chintang: children's usage and surrounding adult speech. *Journal of Child Language* 39, 284–321

Tardif, T., Shatz, M., &Naigles, L. (1997). Caregiver speech and children's use of nouns versus verbs: a comparison of English, Italian, and Mandarin. *Journal of ChildLanguage*24, 535–565.

Waxman, S. Fu, X., Arunachalam, S. Leddon, E., Geraghty, K., &Song, H. (2013). Are nouns learned before verbs? Infants provide insight into a long-standing debate. *Child Development Perspectives,7*(3), 155-159.

Do simple syntactic heuristics to verb argument structure hold up? A test with spontaneous corpora

Cynthia Pamela Audisio & Alejandrina Cristia

(CIIPME, Consejo Nacional de Investigaciones Científicas y Técnicas, Buenos Aires, Argentina & (LSCP, Département d'études cognitives, ENS, EHESS, CNRS, PSL Research University, Paris, Francia)

Work within the Syntactic Bootstrapping framework proposes that children could use syntactic heuristics to guess at verb meanings (Gleitman, 1990; Fisher et al., 1994; Naigles, 1996). For instance, English-learning two-year-olds interpret novel verbs as transitive when they occur in sentences with two noun phrases, and as intransitive when the verb co-occurs with only one (Yuan, Fisher, & Snedeker, 2012). Modeling work on naturalistic English corpora suggests that such a bias could be learned incrementally (Christodoulopoulos, Roth, & Fisher, 2013). Is such a heuristic viable in other languages? In this study we investigate whether the number of nouns co-occurring systematically relate to verb classes in the input to individuals learning Spanish, a pro-drop language with fairly flexible word order.

Argentinean infants (N = 10 whose parents had > 16 years education; N= 10 whose parents had <7 years of education) are being followed longitudinally. Their input was initially audiorecorded at mean age 0; 14 using an unobtrusive recorder carried in a breast pocket for 4 hours, of which the middle 2 have been fully transcribed by trained coders. Online databases were consulted to classify verbs as having 0-4 obligatory arguments (e.g., besar 'kiss' has 2, compartir 'share' has 3). Since initial exploration revealed low frequencies of occurrence of 0-, 1- and 4-argument verbs, they were set aside thereafter. Finally, CLAN's part-of-speech tagging was used to locate sentences with exactly one conjugated verb, and count overt nouns and pronouns in those sentences. Arguments expressed as verbs' inflexional morphemes were not counted in this analysis.

Although the average number of noun elements per utterance varied with the number of arguments required by the verb as predicted (e.g. M= 1.04, SD= 1.02 for 2-arguments verbs and M= 1.49, SD= 1.03 for 3-arguments verbs), further inspection of results suggests that a simple noun-counting heuristic may not suffice, as the effect was mainly driven by the proportion of utterances with no noun elements, which ranged from 50% for 0-argument verbs to 10% for 4-argument verbs in roughly 10% steps. The overall considerable proportion of sentences containing no noun elements suggests that children might need to retrieve referents for verb-required arguments from local linguistic or extra-linguistic context. Our largely automatized analysis pipeline should allow extension of this procedure both to other corpora (such as video recordings of child-adult interactions) and languages which, unlike Spanish, don't allow argument dropping or keep less flexible word orders.

References

Christodoulopoulos, C., Roth, D., & Fisher, C. (2016). An incremental model of syntactic bootstrapping. *ACL 2016*, 38.

Fisher, C., Hall, D. G., Rakowitz, S., & Gleitman, L. (1994). When it is better to receive than to give: Syntactic and conceptual constraints on vocabulary growth. *Lingua*, *92*, 333-375.

Gleitman, L. (1990). The structural sources of verb meanings. *Language acquisition*, *1*(1), 3-55.

Naigles, L. R. (1996). The use of multiple frames in verb learning via syntactic bootstrapping. *Cognition*, *58*(2), 221-251.

Yuan, S., Fisher, C., & Snedeker, J. (2012). Counting the nouns: Simple structural cues to verb meaning. *Child development*, *83*(4), 1382-1399.

The acquisition of Polish and Finnish verb inflection in a connectionist model

Felix Engelmann, Joanna Kolak, Sonia Granlund, Marta Szreder, Ben Ambridge, Julian Pine, Anna Theakston, & Elena Lieven

(University of Manchester; University of Manchester and University of Warsaw; University of Liverpool; United Arab Emirates University; University of Liverpool; University of Liverpool; University of Manchester; & University of Manchester)

Input-based approaches to language acquisition suggest that inflectional knowledge develops gradually as a function of the statistical properties of the phonological input (e.g., Bybee and Moder, 1983). In order to investigate the relation between low-level input properties and error patterns in a purely exposure-based learning mechanism, we trained neural network models to produce person/number inflected verbs in the morphologically complex languages Polish (PL) and Finnish (FI) and compared the simulations with experimental results from elicited-production studies with children at the age of about 50 months.

Three-layer network models were presented with phonological representations of verb stems (e.g., PL: /risuj/; FI: /roikːu/) and a code for one target person/number context on the input layer and had to output the complete inflected form (e.g., PL: /risujɛʃ/; FI: /roikut/ for 2nd singular). In each language, 800 present-tense verbs were trained probabilistically according to their token frequencies in child-directed speech corpora. By limiting the intermediate layer to 200 units, the models were forced to generalise rather than rote-learn by extracting morphophonological subregularities.

Both models showed facilitated learning for inflected forms with a high token frequency and with high phonological neighbourhood density (PND). Suffix errors often resulted from overgeneralisation (i.e., producing the correct person/number context but from a different inflectional class) and occasional substitutions of low-frequency forms with higher-frequency forms (e.g., producing 3rd singular instead of 1st singular). These results are consistent with our experimental findings. In addition, the simulations showed an interaction between frequency and PND in certain training stages, such that low-frequency forms benefited more from PND than high-frequency forms. This interaction was not significant in the experimental data.

The results demonstrate that a common input-based learning mechanism can acquire verb inflection cross-linguistically and provide predictions about the way information in the input is used over the course of learning.

References

Bybee, J. L., & Moder, C. L. (1983). Morphological classes as natural categories. *Language, 59*, 251–270.

An experimental study on the acquisition of nominal case marking in Estonian, Finnish and Polish

Joanna Kołak, Sonia Granlund, Virve Vihman, Felix Engelmann, Ben Ambridge, Julian Pine, Anna Theakston, & Elena Lieven

(University of Manchester and University of Liverpool; University of Manchester and University of Warsaw; University of Tartu; University of Manchester; University of Liverpool; University of Liverpool; University of Manchester; & University of Manchester)

This study explores how morphosyntactic competence develops in children acquiring morphologically complex languages and how this development is related to the language input. Contrary to previous theories positing that children's morphosyntactic categories are innate, and learned early in acquisition (e.g., Wexler, 1998), recent input-based accounts have suggested that acquisition follows the statistical properties of the child's language environment (e.g., Tomasello, 2003). However, few studies have examined whether input-based accounts can explain children's acquisition of morphology cross-linguistically, especially in languages with dissimilar morphological paradigms. To investigate this, the current study elicits children's production of nominal case marking in three morphologically complex languages – Estonian, Finnish and Polish – which differ in the nature and complexity of the system, involving both affixes and stem changes.

In each language, 40 children between the ages of three and five participated in the study. Children were shown drawings of a character interacting with 24-30 different noun objects in five or six different case contexts, depending on the language. The experimenter named the object in its nominative form, and produced a lead-in sentence designed to elicit each case (e.g., "This is a ball. The fox is waving at…"), prompting the child to provide the final word, a case-marked noun. Each child was exposed to half of the tested cases for each noun. Nouns were chosen across a range of form frequencies and from noun classes varying in phonological neighbourhood density (PND), with counts taken from CDS corpora. The participants' responses were coded according to the accuracy of the produced affix and stem.

Statistical analysis of the data showed that greater accuracy is predicted by greater frequency of the form and higher PND in the input. However, the particular features around which each paradigm is organised likely determine the proportion of errors made, and the types of errors produced.

References

Tomasello, M. (2003). *Constructing a language: A usage-based approach to child language acquisition.* Cambridge, MA: Harvard University Press.

Wexler, K. (1998). Very early parameter setting and the unique checking constraint: A new explanation of the optional infinitive stage. *Lingua*, *106*(1), 23-79c

WORKSHOP 11

Linguistic categories, language description and linguistic typology

Giorgio Francesco Arcodia & Paolo Ramat

The recent discussion in the LINGTYP@listserv.linguistlist.org mailing list (on multiple threads) on linguistic categories and universals has sparked a heated debate which highlighted the existence of vast differences (as well as much common ground) in the understanding of the basics of the whole typological enterprise among typologists, and of persisting uncertainties as to fundamental issues in the discipline, as e.g. the distinction between 'comparative concepts' and 'language-specific categories', or about the dichotomy (or non-dichotomy) between language description and 'doing typology' − and how the latter should be done. Position papers summarising the views of some of the participants to the LINGTYP mailing list have been collected in a forthcoming issue of *Linguistic Typology*.

The question is hardly a new one. For instance, in the middle of the 19th century, K.W.L. Heyse (1856) distinguished between a *philosophische Sprachwissenschaft* ('philosophical language science' − in a sense, a 'Universal Grammar') and a *geschichtliche Sprachforschung* ('historical language research' − which translates into 'descriptive grammar' in modern terminology). Accordingly, the task of the former was to explain, whereas that of the latter was to describe facts (see Ramat 1995). But the discussion on LINGTYP has shown that even the most basic statements as 'the basic word order of Cantonese is SVO' may be understood in a significantly different way by different typologists: namely as an actual statement about the 'default' order of the constituents Subject (as a syntactic pivot), Verb and Object in a language; as a generalisation about a preferred order of constituents which however are *not* necessarily a Subject and an Object, but possibly an Agent and a Patient; or even a meaningless association, given that the categories at issue may have no relevance for Cantonese.

Moreover, the opposition between 'categorial universalism' – the assumption of a set of universal cross-linguistic categories from which languages may pick – and 'categorial particularism' – the idea that there are no universally valid crosslinguistic categories, and that languages should be described in their own terms (Croft 2001, Haspelmath 2010) – does not necessarily overlap with the distinction between generative approaches and functional-typological approaches to language; actually, typologists themselves seem to be divided between these two opposed standpoints (compare Dixon 2010 and Haspelmath 2010). Even among 'particularists' there are important divergences of opinion as well: while usually they "agree that language description should be inductive and based on the facts of the language", and that "there are no cross-linguistic categories", not everybody agrees on the separation between language description and comparison – that is, that categories identified for individual languages should not be taken as the base for typological comparision (LaPolla 2016). Lastly, a compromise view between particularism and universalism has also been proposed (Moravcsik 2016).

After a fruitful preliminary meeting in Naples (SLE 2016), we decided to submit a proposal for a workshop for the next annual SLE meeting in Zürich. Many of the participants to the discussion in Naples already agreed to contribute a paper for a workshop-to-be in Zürich. We invite contributions on

any topic related to linguistic categories, both in typological comparison and in language description, including (but not limited to):

a. **Language-specific categories, cross-linguistic categories and comparative concepts** (Haspelmath 2010). Are language-specific categories instantiations of comparative concepts, or are they just a good 'match', with no taxonomic relation implied (see Moravcsik 2016)? Do we use comparative concepts only for the purposes of typological comparison, or also in language description (including glossing; Haspelmath 2016)? How do we deal with the basic intuition that, say, an English adjective and a Portuguese adjective, despite having differences, are perceived to be instantiations of the same category, and with the fact that, by denying this, we may run into the risk of an unnecessary proliferation of (language-specific) categories (see Croft 2001, Haspelmath 2012, Moravcsik 2016)?

b. **The definition of comparative concepts / cross-linguistic categories**. Do we accept that comparative concepts may have multiple definitions, as long as they serve the purposes of the proponent/user, or do we want some general consensus on what, say, 'noun', 'subject' or 'relative clause' mean (see e.g. Dixon & Aikhenvald 2004, Aikhenvald & Dixon 2005 on adjectives and serial verb constructions; LaPolla 2016)?

c. **Hybrid categories**. Is the above mentioned adjective an instance of a 'hybrid' category, defined both in terms of function and meaning ("[a]n adjective is a lexeme that denotes a descriptive property and that can be used to narrow the reference of a noun"; Haspelmath 2010: 670)? Are we supposed to combine semantic, functional *and* formal criteria to identify the constructions to be compared, or should we rely primarily on function (see Rijkhoff 2009, 2016)?

d. **The feasibility of large-scale typological comparison.** How do we deal with the (apparent?) contradiction in using labels as SOV, VOS and, at the same time, admitting that concepts as 'S' may be irrelevant for the grammar of some languages (see LaPolla 2002, 2016)? And how do we cope with the fact that by rejecting such a method we also overlook important generalisations captured by the use of those labels? And, most importantly, how can we conduct research on large samples if we cannot rely on the 'traditional' category labels for comparison?

e. **Typology *vs.* language description**. Is the distinction between 'typologists' and 'documentary linguists' an actual one? Do we need (and, above all, do we *want*) a separation between the description of individual languages and typological comparison (Haspelmath 2010), or is it more fruitful to have typologically-informed language description?

Papers that deal with the use of categories in large-scale comparison, and with the relation between categories in the description of individual languages and in current linguistic theories are especially welcome.

References

Aikhenvald, Alexandra, Dixon, Robert M.W., 2005. *Serial Verb Constructions*. Oxford: Oxford University Press.

Croft, William, 2001. *Radical Construction Grammar. Syntactic Theory in Typological Perspective*. Oxford: Oxford University Press.

Dixon, Robert M.W., 2010. *Basic Linguistic Theory. Volume 1: Methodology*. Oxford: Oxford University Press.

Dixon, Robert M.W., Aikhenvald, Alexandra, 2004. *Adjective Classes*. Oxford: Oxford University Press.

Haspelmath, Martin, 2010. Comparative concepts and descriptive categories in crosslinguistic studies. *Language* 86(3), 663-687.

Haspelmath, Martin, 2012. How to compare major word-classes across the world's languages. *UCLA Working Papers in Linguistics* 17, 109–130.

Haspelmath, Martin, 2016. The challenge of making language description and comparison mutually beneficial. *Linguistic Typology* 20(2), 299-304.

LaPolla, Randy J., 2002. Problems of methodology and explanation in word order universals research. In Pan Wuyun (ed.), *Dongfang Yuyan yu Wenhua (Languages and Cultures of the East)*, 204-237. Shanghai: Dongfang Chuban Zhongxin.

LaPolla, Randy J., 2016. On categorization: Stick to the facts of the languages. *Linguistic Typology* 20(2), 365-376.

Heyse, Karl Wilhelm Ludwig, 1856. *System der Sprachwissenschaft*, hsgb. von Dr. H. Steinthal. Berlin: Dümmler.

Moravcsik, Edith, 2016. On linguistic categories. *Linguistic Typology* 20(2), 417-426.

Ramat, Paolo, 1995. Typological comparison: Towards a historical perspective. In Masayoshi Shibatani, Theodora Bynon (eds.), *Approaches to Language Typology*, 27-48. Oxford: Clarendon Press.

Rijkhoff, Jan, 2009. On the (un)suitability of semantic categories. *Linguistic Typology* 13, 95-104.

Rijkhoff, Jan, 2016. Cross-linguistic categories in morphosyntactic typology: problems and prospects. *Linguistic Typology* 20(2), 333-364.

Toward a standard list of grammatical comparative concepts: The Grammaticon

Martin Haspelmath

(MPI-SHH Jena & Leipzig University)

Even though it has been noted that comparative concepts for typology are merely instruments for research and may therefore differ across researchers (Haspelmath 2010), we want different databases to be comparable. For example, we would like to compare data from WALS (Haspelmath et al. 2005/2013) to be comparable with data from SAILS Online (Muysken et al.)

The task is thus similar to the task of lexical comparison across languages by means of a set of comparison meanings. For the latter, a semi-standard ontology now exists: The Concepticon (List et al. 2016, concepticon.clld.org), which has over 2500 comparison meanings which bring together comparison meanings from diverse lexical databases. This allows automatic comparison of lexical forms from diverse databases-

The present talk explores the possibility of a counterpart of this for grammatical comparative concepts, called Grammaticon, which would facilitate the comparison of different grammatical datasets. The goal of allowing comparability, also for machines (i.e. interoperability), is similar to that of the GOLD ontology (General Ontology for Linguistic Description, Farrar & Langendoen 2003), but the latter attempts to come up with a general set of concepts for description, which is impossible, because each language has its own system. The GOLD's goal thus resembles the idea of Wierzbicka's natural semantic metalanguage, which can be used to describe any language, but which has not proved practical.

The Grammaticon's goal is more modest, in that it proposes a set of highly ecumenical comparative concepts with associated terms that can be used in comparison. No claim is made that these concepts should be useful for describing indovidual languages.

References

Farrar, Scott & D. Terence Langendoen. 2003. A linguistic ontology for the Semantic Web. *GLOT International* 7(3). 97-100. (Available at http://www.linguistics-ontology.org/gold.html)

Haspelmath, Martin. 2010. Comparative concepts and descriptive categories in crosslinguistic studies. *Language* 86(3). 663–687.

Haspelmath, Martin, Matthew Dryer, David Gil & Bernard Comrie (eds.). 2005. *The world atlas of language structures*. Oxford: Oxford University Press. (2013 online version available at http://wals.info)

Kortmann, Bernd & Lunkenheimer, Kerstin (eds.) 2013. *The Electronic World Atlas of Varieties of English*. Leipzig: Max Planck Institute for Evolutionary Anthropology. (Available at http://ewave-atlas.org)

List, Johann-Mattis & Cysouw, Michael & Forkel, Robert (eds.) 2016. *Concepticon*. Jena: Max Planck Institute for the Science of Human History.

Muysken, Pieter, Harald Hammarström, Olga Krasnoukhova, Neele Müller, Joshua Birchall, Simon van de Kerke, Loretta O'Connor, Swintha Danielsen, Rik van Gijn & George Saad. 2016. *South American Indigenous Language Structures (SAILS) Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. (Available at http://sails.clld.org)

'Comparative concepts' vs. 'descriptive categories: bridging the gap

Hans-Heinrich Lieb

(Freie Universität Berlin)

Research question

The distinction between 'comparative concepts' (cc.s) and 'descriptive categories' (dc.s) is set up in Haspelmath (2010) as a quasi-dichotomy (essentially unchanged in Haspelmath 2015, 2016). Subsequent discussion (as in ([Lingtyp] 2016) has occasionally modified (Beck 2016) but rarely rejected (Lehmann 2017) Haspelmath's stand. What is the status of the distinction?

Approach

Haspelmath (2010) is used as the basic text. On *one* interpretation, to be followed here, cc.s and dc.s are interpreted terms (expressions). Given Haspelmath's characterization of cc.s, these are easily construed as terms of a general theory of language (not: Universal Grammar), a step not taken by Haspelmath nor in subsequent discussion (but see Lehmann 2017). A single theory of languages may be presupposed (along the lines of Lieb 1983: Part G) in both a typological theory and in grammars of languages. The cc.s may then be used for terms of the typological theory and for dc.s in the grammars.

Method

The logical properties of cc.s and dc.s, and the relationship between them, are established using a reconstruction by means of predicate logic along the lines of Lieb (2005: Sec. 2).

Taking the term "article" as an ***example of a cc***, it is argued that such terms can be considered as (defined or undefined) ***non-logical constants of a theory of language*** that are ***two-place predicates***: "x is an article of y", not one-place predicates: "x is an article", where y is any language, language variety, idiolect, or system of such, and x is a 'word' of y.

From (i) the two-place constant "article (of)" we form (ii) the ***open one-place predicate expression*** "article(-, y)", or "article-of-y", which is equivalent to a lambda-expression with the free variable "y"

(Carnap 1958/2012: Sec. 33d), denoting, for any given y, a certain set of words x – a category – of y. This predicate expression, which contains the cc as a part, can be a ***term of a typological theory*** that presupposes the theory of language, a term used in typological statements.

In a 'declarative' grammar of English, the constant "English" will be available. Replacing "y" in (ii) by "English", we obtain (iii) the ***closed one-place predicate expression*** "article(-, English)", or "article-of-English", containing, again, the cc and denoting a certain set of words of English, a ***category of English*** identifiable by reference to form. The predicate expression is a ***dc of the grammar***.

In both predicate expressions, "article" is used in the sense of (i).
Going from (i) to (iii) directly, and from (iii) to (ii), would also be possible, but (i) cannot be obtained from (ii) nor from (iii).

Results

Construing cc.s as two-place predicates of a presupposed theory of language, we obtain from them terms in typology and typical dc.s of grammars as, respectively, open and closed one-place predicate expressions including the cc.s as parts. *Dc.s may be obtained from cc.s* (not recognized by Haspelmath, who argues for the mutual independence of cc.s and dc.s): the distinction is valid, but not as a quasi-dichotomy.

References
Beck, David. 2016. "Some language-particular terms are comparative concepts." *Linguistic Typology* 20 (2), 395–402.
Carnap, Rudolf. 1958/2012. Introduction to symbolic logic and its applications. New York: Dover Publications. [Reprinted in 2012 by Courier Corp., North Chelmsford, MA.]
Haspelmath, Martin. 2010. "Comparative concepts and descriptive categories in crosslinguistic studies". *Language* 86 (3), 663-687.
Haspelmath, Martin. 2015. "Defining vs. diagnosing linguistic categories: A case study of clitic phenomena." In: Błaszczak, Joanna, Dorota Klimek-Jankowska, and Krzysztof Migdalski (eds.). *How categorical are categories? New approaches to the old questions of noun, verb, and adjective,* Berlin: De Gruyter Mouton, 273-304.
Haspelmath, Martin. 2016. "The challenge of making language description and comparison mutually beneficial." *Linguistic Typology* 20 (2), 299-301.
Lehmann, Christian. 2017. "Linguistic concepts and categories in language description and comparison". To appear in: Chini, Marina, and Pierluigi Cuzzolin (eds.). Typology, acquisition, grammaticalization studies. Milano: Franco Angeli.
http://www.christianlehmann.eu/publ/lehmann_ling_concepts_categories.pdf
Lieb, Hans-Heinrich. 1983. Integrational Linguistics. Vol. I.: General Outline. (Current Issues in Linguistic Theory, 17). Amsterdam; Philadelphia: Benjamins.
Lieb, Hans-Heinrich. 2005 "Notions of paradigm in grammar". In: D. Alan Cruse, Franz Hundsnurscher, Michael Job, and Peter Lutzeier (eds). *Lexikologie / Lexicology: Ein internationales Handbuch zur Natur und Struktur von Wörtern und Wortschätzen / An international handbook on the nature and structure of words and vocabularies.* Vol. 2. Berlin etc.: de Gruyter. (= Handbücher zur Sprach- und Kommunikationswissenschaft, 21.2). 1613–1646.

Typology of functional domains: an alternative to comparative concepts

Zygmunt Frajzyngier

(Dept. of Linguistics, University of Colorado)

Background: In a series of studies (Lazard 1995, 2015 and references therein), Lazard has underlined the difficulties of conducting typological studies when different functions are coded by different forms. To overcome these difficulties, he proposed the tool of 'skeletal notions', re-labeled as 'comparative concepts' by Haspelmath (2011). The skeletal concepts in effect served as *tertium comparationis* when comparing functions that partially overlapped across languages. The use of such tools, even when provided with rigorous definitions of the skeletal notions involved, has confined the typological research to comparative concepts that linguists could generate. The shortcoming of such research is that instead of investigating how languages are similar and how they are different, one studies how languages are similar or different with respect to an arbitrarily selected comparative concept.

The alternative way of conducting typological research is to study only categories actually present in the grammatical systems of various languages. Such a typology exposes the actual similarities and differences across languages which then become the objects of linguistic explanation. The object of cross-linguistic comparison should be functional domains (Frajzyngier with Shay 2016), such as 'tense', 'aspect', 'modality', and many others. The questions to be asked in such comparisons are two-fold: (1) What functional domains exist in a given language? and (2) What functions are encoded within those functional domains? In this approach, a function is defined solely by its relationship to other functions within the same domain. The present study applies the proposed typology to a few functional domains including the relationship between the predicate and noun-phrases across related and unrelated languages. The outcome of such a typology is a large list of types and correlations amenable to cause-effect explanations. By confining typology to functions actually coded in languages, the proposed approach eliminates the spurious dichotomy between language-specific and comparative concepts.

References

Frajzyngier, Zygmunt, with Erin Shay. 2016. *The role of functions in syntax: a unified approach to language theory, description, and typology.* Amsterdam: Benjamins.

Haspelmath, Martin. 2011. Comparative concepts for alignment typology. *Linguistic Typology* 15.3 535-567.

Lazard, Gilbert. 1994. *L'actance*. Paris. PUF.

Lazard, Gilbert. 2015. Two possible universals: The major Biactant Constructions; twofold notion of subject. *Linguistic Typology* 19.1.111-130.

Keeping language-particular analysis, comparison and universalist theory together: A multivariate approach to morphology in the world's languages

Rik van Gijn, Francesco Gardani, Florian Sommer, Manuel Widmer, Balthasar Bickel & and Paul Widmer

(University of Zurich)

Cross-linguistic definitions of categories fail whenever they try to capture more than one dimension of variation at a time (Bickel 2007). For example, notions such as 'word' fail because they try to capture variation in both phonology and syntax, and within these domains, variation across very diverse structures (Bickel & Zúñiga, in press). More generally, our traditional analytical tools are unable to deal appropriately with an increasingly diverse body of data. In response to problems of this sort, we propose a fine-grained, multivariate typology that maximizes the precision in which we can identify each dimension of variation of a given linguistic phenomenon.

In this contribution, we focus on the dimensions of variation in morphology, i.e. the properties of morphemes and the constraints on their occurrence. We use the term morpheme as shorthand for morphological operations or form-meaning covariances of any level of abstraction, including e.g. ablaut patterns and suprasegmental marking. However, the level of analysis which we consider the very locus of variation is the individual allomorph. Allomorphs are analyzed on the basis of 11 parameters of potential variation, which broadly fall into four groups: selection restrictions; exponential behavior (the relation between semantics and their exponent(s)); distributional criteria; and phonological integration. The higher level of the morpheme is an aggregation of allomorphs where we track the conditioning factors involved in allomorph selection, and issues related multiple exponence and its possible different incarnations (copying, extended exponence, periphrasis). Finally, at an even higher level of abstractness, we typologize phenomena, such as syncretism, defectiveness, morphomic (or eidemic) patterns, that is, abstract (subparadigmatic or not) entities which can be conceived of as generalizations over sets of lexemes. Of course, certain variables do not apply to morphomic structures, as morphomes are *per definitionem* only morphologically motivated (Aronoff 1994; Maiden 2005, 2013).

As we will show, the description of these properties results in morphological profiles where every variable is allowed to vary independently of others. In this way, dependencies or correlations between variables, or variable values, become an empirical question rather than an *a priori* decision. Moreover, multivariate approaches of this kind stay clear of breaking the fruitful cross-pollination between language-particular analysis and universalist theory development.

References

Aronoff, Mark. 1994. *Morphology by itself: Stems and inflectional classes.* Cambridge, Mass.: MIT Press.

Bickel, Balthasar. 2007. Typology in the 21st century: major current developments. *Linguistic Typology* 11. 239–251.

Bickel, Balthasar & Fernando Zúñiga. in press. The 'word' in polysynthetic languages: phonological and syntactic challenge. In Michael D. Fortescue, Marianne Mithun & Nicholas Evans (eds.), *The Oxford Handbook of Polysynthesis*. Oxford: Oxford University Press.

Maiden, Martin. 2005. Morphological autonomy and diachrony. In Geert Booij & Jaap van Marle (eds.), *Yearbook of morphology 2004*, 137–175. Dordrecht: Springer.

Maiden, Martin. 2013. 'Semi-autonomous' morphology? A problem in the history of the Italian (and Romanian) verb. In Silvio Cruschina, Martin Maiden & John C. Smith (eds.), *The boundaries of pure morphology*: *Diachronic and synchronic perspectives*, 24–44. Oxford: Oxford University Press.

Using semantic maps to evaluate comparative concepts

Kasper Boye, Jessie Leigh Nielsen, & Peter Harder
(University of Copenhagen)

The assumption that structure is language-specific and only substance is potentially universal entails a view of crosslinguistic descriptive categories like 'tense' and 'aspect' as grounded in semantic substance (cognitive-communicative potential). On this view, a crucial step in identifying such categories is to establish a substance-based tertium comparationis for the description of language-specific values. One way to do this is to set up a number of "comparative concepts" (Haspelmath 2010): conceptual generalizations like 'past' and 'present', designed by the linguist to describe substance values. Often, this is all that is done. When identifying descriptive categories, linguists tend to stay content with conceptual generalizations. Bybee in fact makes a point of staying content with them. She argues that crosslinguistic categories are not descriptively relevant: while they may be reflected in language-specific structure (e.g. paradigms), most often they are not (Bybee 1985: 17). Accordingly, Bybee & al. (1994) use conceptual generalizations like 'evidential' and 'source of information' merely as convenient meaning labels, without any implication of possible categorial status. In a similar fashion, Haspelmath stresses the subjective character of comparative concepts: they are "constructs" (Haspelmath 2010: 666) that "cannot be right or wrong" (Haspelmath 2010: 678). According to this view, there is not only no guarantee that comparative concepts actually describe coherent areas of semantic substance, it is not even possible to constrain or evaluate them.

This paper advocates a more optimistic and less subjective approach to comparative concepts and crosslinguistic descriptive categories. The basic rationale is that in proposing e.g. 'aspect' as a comparative concept, one is claiming that this concept is a revealing way of "cutting nature at the seams". Comparative concepts, in other words, should live up to the same requirements as basic terms in any other scientific discipline. The key requirement is to be able to subsume a range of instantiations under a coherent shared characterization.

First, we argue that language-specific structure can be used to evaluate comparative concepts as either significant or not for the description of language-specific structural phenomena. We then outline three specific methods for evaluating comparative concepts, one of which employs semantic mapping. Focusing on this method, we argue that a comparative superconcept – e.g. 'tense' – is significant for crosslinguistic structural description if the comparative subconcepts – e.g. 'past', 'present', 'future' – covered by the superconcept form a continuous region on a semantic map.

Subsequently, we exemplify this method in a crosslinguistic analysis of aspect. Following the same practice as van der Auwera & Plungian (1998) in their analysis of modality, we construct a semantic map of aspect and related concepts based on synchronic and diachronic data from 76 languages extracted from Bybee & al. (1994). We demonstrate that aspect does not form a continuous region on the semantic map and thus cannot be regarded as a crosslinguistic descriptive category. Specifically, perfective aspect is not connected to imperfective aspect and its subconcepts. The paper ends by stating possible reasons for the results and discussing theoretical and practical consequences for further studies.

References.
Bybee, Joan L. *Morphology: a study of the relation between meaning and form*. Amsterdam: John Benjamins.
Bybee, Joan, Revere Perkins & William Pagliuca. 1994. *The evolution of grammar: Tense, aspect, and modality in the languages of the world*. Chicago: University of Chicago Press.

Haspelmath, Martin. 2010. "Comparative concepts and descriptive categories in cross-linguistic studies". *Language* 86. 3: 663-687.

van der Auwera, Johan and Vladimir Plungian. 1998. "Modality's semantic map*". Linguistic Typology* 2: 79-124.

Sentences? What are you talking about?

Bogusław Bierwiaczonek
(University of Czestochowa, Poland)

As a construction grammarian, I'm going to argue that traditional sentences, which may be defined as ordinary argument structure constructions, are just a subcategory in the whole inventory of constructions. In particular, alongside ordinary verb headed argument structure constructions , there are verb headed constructions with fewer or greater number of complements than ordinary arguments. The former are represented by various valency decreasing constructions (cf. Hilpert 2014), such as the subjectless imperative construction, middles, short passives and impersonal *-no/-to* and V-*się* subjectless constructions in Polish, as well as substantive idioms, such as *To eat here or take away* and *Be it as it may*.

The constructions with a greater number of complements then ordinary argument structure constructions are represented by the TIME *away* construction, the *way* construction, and Kay and Fillmore's (1999) *What's* X *doing* Y (the adjunct is obligatory in *What's the fly doing in my soup*).

A rather extreme form of elliptical constructions are verbless illocutionary constructions (cf. Bierwiaczonek 2016), e.g. Michaelis and Lambrecht's (1996) METONYMIC NP Construction, where a single NP may be used as an exclamative, e.g. *My car payments! The time he takes!*

I will discuss the Polish equivalents of the *What a* NP exclamative!, i.e. *Ale* X and *Co za* X. The constructions are nearly synonymous when X is an NP. However, *Ale* X construction allows other categories in the X position, e.g. ACTIVITIES and PROPERTIES, and hence full sentences and adjectives, as in the examples below:

1) Ale auto! (=What a car! – Expression of emotive evaluation)
2) Co za auto! (=What a car!)
3) Ale piękna! (How beautiful [she is]!)
4) *Co za piękna!
5) Ale strzelił! (=How He shot!)
6) *Co za strzelił!

A number of elliptical constructions are dependent clause constructions, licensed (or motivated by constructional part-for-whole metonymy) by full-fledged complex sentences, i.e. monoclausal *if-only* construction is licensed by the full conditional (cf. Bierwiaczonek 2014).

Complex sentences are by no means a homogeneous category either. Thus, alongside the neat Main –Subordinate Clause constructions, there are sluicing constructions, as well as considerably reduced monoclausal *What-if p, If not for X, p* and *OM* constructions (e.g. respectively *What if Eve fails to turn up? If not for Bill I would never have won, One more glass of beer and I'm leaving*) (cf. Culicover &Jackendoff 2005) . I will argue that while *What-if p* is motivated by the constructional part-for-whole metonymy, the *If not for X*, p and the *OM* constructions are motivated by a conceptual metonymy, whereby a single salient participant in a propositional structure may stand for the whole propositional structure.

The conclusion that follows is that we must change our way of defining language and doing linguistics. Instead of defining language as a set of rules describing an infinite number of well-formed sentences, we should agree with Goldberg (1995, 2006) and view it as a network of formally diverse constructions which enable us to express our conceptualizations of reality and our communicative needs, regardless of whether they satisfy the old-fashioned criteria of clausiness or not.

References

Bierwiaczonek, B. (2014) On constructivization – a few remarks on the role of metonymy in grammar. In Rudnicka-Szozda, K and Szwedek, A (eds.) *Cognitive Linguistics in the Making*, 5-20. Frankfurt am Main: Peter Lang.

Bierwiaczonek, B. (2016) *An Introductory English Grammar in Constructions.* Częstochowa: Wydawnictwo Akademii im. J. Długosza.

Culicover, P. and Jackendoff, R. (2005) *Simpler Syntax.* Oxford: Oxford University Press.

Goldberg, A. (1995) *Constructions: A Construction Grammar Approach to Argument Structure.* Chicago: University of Chicago Press.

Goldberg, A. (2006) *Constructions at Work: The Nature of Generalization in Language.* Oxford: Oxford University Press.

Hilpert, M. (2014a) *Construction Grammar and its Application to English*. Edinburgh: Edinburgh University Press.

Kay, P. and Fillmore, Ch. (1999) Grammatical constructions and linguistic generalizations: The *What's X doing Y?* construction. *Language* 75:1-33.

Michaelis, L and Lambrecht, K. (1996) The Exclamative Sentence Type in English. In Goldberg, A. (ed.) *Conceptual Structure, Discourse and Language*, 375-389. Stanford: CSLI Publications.

On the use of comparative concepts in Indo-European linguistics, or the typological definition of the notion of root

Luca Alfieri

The notion of root is very complex, since it can be defined into two largely different ways. All scholars agree that the root is the antecedent of a set of etymologically related forms, but they differ on how they define the root on the synchronic-typological level. According to a first group of scholars, the term lexeme (lexical morpheme) is a synonym of root and any lexeme is considered in principle equivalent to a word-form minus inflections that is, to a simple stem, so that items such as Lat. *reg-* in *rego* and Skt. *tap-* in *tapati* represent the same unit of analysis. In this case, the root is an inexistent unit of analysis in the general theory of language (as it is only a diachronic unit) or it is an unnecessary unit of analysis (as it is a synonym of stem)[23]. However, according to a second group of scholars, the term lexeme is a hyperonym of root and radical. The radicals such as Lat. *reg-* are lexemes that are also word-forms minus inflections and primary stems, since they fall in the same classes as the full words (here: the verb). The *roots* such Skt. *tap-* are lexemes but are not word-forms, since they are "precategorial" in respect to the noun-verb-adjective division.[24] The talk shows that there is no reason to reject the existence of a cross-linguistic unit "root" that differs from the simple verb stem.

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[23] The authors falling in this group are discussed in Alfieri (2013, 2014) and Belardi (2002 I, 256 ff.).
[24] The authors falling in this group are discussed in Alfieri (2013) and Belardi (1990).

In order to show the claim, the Adjectival encoding in Latin and in the Ṛg-veda Saṃhitā is compared using the comparative concepts of the PoS (defined by Croft 2001). A sample of 52 hymns of the RV was gathered and all the Quality Modifier constructions found in the hymns are analyzed and compared to those found in Cicero's *Catilinariae*. In Latin the most typical Quality Modifier construction is a simple adjective marked by agreement. In the RV hymns 892 Quality Modifiers are found: 425 (47,6%) are derived adjectives built on a root of quality meaning (*tapú-* "hot" from *tap-* "become/make hot"); 184 (20,2%) are compounds (*manojúva-* "mind-swift"); 133 are (simple or derived) nouns joined to a prefix (*su-*, *a-*, etc.; see cases as *sudyótmāna-* "of good brilliance"); 93 (10,5%) are (simple or derived) nouns joined to an adjectival suffix (*aṅkuśín-* "hooking" from *aṅkuś-* "hook"); only 56 (6,3%) are simple adjective stems marked by agreement (*énī-* "colorfull"). Therefore, in Latin the most typical Adjective is a simple adjective stem, whereas in Vedic it is a derived adjectival stem built on a verbal root of quality meaning. If this result is accepted, three general conclusions can be reached:

i) The PoS system in Vedic is comparable to that found in the languages "without" adjectives (or, more precisely, with a small set of adjectives, since in the RV about 30 primary adjectives are found), since in both cases, only two major classes of lexemes are found (roots and primary nouns).

ii) The root is not only a diachronic notion, nor an invention by Arabic/Indian native grammarians, nor a mere synonym of simple verb stem; it is a precategorial unit (in the sense of Bisang 2008) that is functionally different from the simple verb stem, since it is the main source booth of the Action Predicates (that is Verbs) and of the Quality Modifiers (that is Adjectives).

iii) A previously neglected typological change should have occurred in the IE family, namely the lexicalization of the adjective class and the subsequent change from the "rigid" to the "specialized" PoS (in Hengeveld's terms 1992).

iv) Comparative concepts supply a useful research tool not only for the *philosophische Sprachwissenschaft* bit also for the *geschichtliche Sprachwissenschaft*, as far as the historical linguists feel the need to cast his study in a cross-linguistically consistent framework.

References

Alfieri Luca. 2013. Review to: Ansaldo U. et al. (eds.). 2010. *Parts of speech: Empirical and theoretical advances*. Amsterdam: Benjamins. Studies in Language 37.2, 425-434.

------, 2014. *The Arrival of the Indian Notion of Root into Western Linguistics. From Coolebroke (1805) to Benfey (1852)*. Rivista degli Studi Orientali 87.1, pp. 59-84.

Belardi Walter. 1990. Genealogia, tipologia, ricostruzione, leggi fonetiche. In *Linguistica, filologia e critica dell'espressione*. Roma: Il Calamo, 155-218.

------, 2002a. *L'etimologia nella storia della cultura occidentale*. 2 vols. Roma: Il Calamo.

Bisang Walter. 2008. Precategoriality and syntax based parts of speech: the case of Late Archaic Chinese. *Studies in Language* 32/3, 65-86.

Croft William. 2001. *Radical Construction Grammar*. Oxford: Oxford University Press.

Hengeveld Kees. 1992. *Non-verbal Predication: Theory, Typology, Diachrony*. Berlin: Mouton.

Perspectives of the UNITYP research project: Past and present

Yoshiko Ono & Waldfried Premper
(University of Zurich; University of Cologne)

UNITYP is a shortcut to denote a research project devoted to language universals research and linguistic typology initiated and led by Hansjakob Seiler at the University of Cologne since the 1970s and funded by the Deutsche Forschungsgemeinschaft (DFG) until 1992. The official project title contained the specification "with particular reference to functional aspects", which is elaborated for instance in a statement like "a number of structural phenomena in any given language, although differing in both form and meaning, can be grouped together under a single common functional denominator" (Seiler 2000: 14), e.g. "identification of an object or item", which pertains to e.g. relative clauses, genitives, and demonstratives. The main characteristics of the UNITYP approach consists of establishing continua of techniques (such as those of identification), which are arrayed according to the functional principles of indicativity and predicativity. Indicativity means global capturing and pointing at (reference) while predicativity corresponds to the act of explicit ascribing properties and predication (content). All techniques exhibit both principles in a different degree.

In this contribution, we take the opportunity to, first, have a look back and trace some central concepts in the development of the UNITYP approach, and then to present aspects of research being continued primarily by Hansjakob Seiler himself.

In his contribution to the volume on the Object relation Seiler (ed. 2015) demonstrates a hierarchical model from the underlying fundamental functional concept (high level of conceptuality, at the same time low level of observability) to the language-specific expression (low level of conceptuality, high level of observability). The hierarchy can be followed up top-down or bottom-up. At a medium level the Object Relation is described by a dynamic between two poles: Pole 1 vs. Pole 2 with complementary properties (Seiler ed. 2015).

In a further development of UNITYP, Seiler (2017) adopts a still more comprehensive view. For him, a central aspect of language activity is the representation of contents of thinking (Denkinhalte) as concretized by States of Affairs (Sachverhalte). The procedure is on three levels as follows:

1. A pragmatic level which houses information about the subsequent dimensions, such as their address, e.g. APPREHENSION, NOMINATION, IDENTIFICATION, POSSESSION, etc. as treated in the volumes of LUS.
2. The following level is the one of strictly linguistic representation. It exhibits the dimensions under their names as above and is structured as a field of bifurcated continua, leading in mirror image like fashion from maximal predicativity coupled with minimal indicativity to minimal predicativity coupled with maximal indicativity. (See the schema S3 in Seiler (2017) depicting the Dimension of IDENTIFICATION.) The curves as in many of our previous publications are an idealization. They simply mark the sequences of positions in the field in their continuous manner. The positions englobe simultaneously an entity out of an array of functions such as Characterization, Localisation etc. as well as an array of categories such as Relatives, Attributives, Appositions, Pronominals, etc. Example: There may be Characterization correlated with Relatives, Quality correlated with Attribute, Deixis correlated with Pronoun.
3. The level of spoken language. This is the level where the field nature of the dimensions appears most clearly, exemplifying still with IDENTIFICATION and S3. At any point in the continuity going from left to right – or in reverse – we may find a coupling of functional plus grammatical indices

acting as predicativity and correlated with a coupling of opposite indices acting as indicativity. Such combinations may act as slots to be filled with spoken material. Examples:

Correlative expressions, type Latin *ubi bene, ibi patria* "Where is good (living), there is one's country". Any kind of expression material with the appropriate semantics may qualify as a filler, e.g. standardized Proper Names in their two versions:

Hansjakob Seiler with +pred / –ind vs. Seiler, Hansjakob with +ind / –pred.

Such a state of affairs involving expressions of such different type and found in different languages all over testifies to the ubiquity, if not universality of the two functions of Predicativity vs. Indicativity.

References

Lehmann, Christian (1989). Language description and general comparative grammar. 11th International Congress of Linguists, 13.08.1987, Berlin. Graustein, Gottfried; Leitner, Gerhard (eds.). *Reference grammars and modern linguistic theory.* Tübingen: Niemeyer. (Linguistische Arbeiten 226), 133-162. Again in the Internet series CLIPP (last change: 14.12.2012).

Seiler, Hansjakob (2000). *Language Universals Research: A Synthesis*. Tübingen: Narr.

— (2015). Theoretische Einleitung". In Seiler, H. (ed.), 6-13.

— (ed.) (2015). Das Konzept der Objektrelation und das Kontinuum ihrer Varianten: Ein muttersprachlicher Zugang. Munich: LINCOM. (LINCOM Studies in Theoretical Linguistics, 57)

— (2017). UNITYP weiter. https://seiler-unityp.com/unityp-weiter/.

Pragmatic cross-linguistic categories

Tabea Reiner

(LMU Munich)

In the hunt for categories that are cross-linguistically applicable in a meaningful way, many have given up hope of detecting such categories in syntax. The alternative area has been semantics (phrasal as well as lexical) for a long time now. However, it has already been noted that this area is not without problems either, since concepts, too, might be culture-specific (Haspelmath 2007:127-128). Interestingly, the solution to this problem sounds very much like mainstream generative work (just replace "meaning" by "structure"): "All we need is some level of meaning at which meanings must be commensurable" (ibid.). Thus, both, the hunt for syntactic as well as for semantic cross-linguistic categories seem to reach the same conclusion: everything works fine as long as our categories are abstract enough.

However, in abstracting away from syntactic or semantic categories, at some point one cannot help crossing the border to discourse-related categories, e.g.: what is a "general VP" if not a predicate, which might function as a comment? Thus, I sympathise very much with Rijkhoff's approach, where discourse categories come first (for details, cf. Rijkhoff 2016). I even think that relying on discourse categories more heavily will also prove useful for single-language descriptions. Since even in single-language descriptions researchers usually do not agree on the categories to use, it might be helpful to start with notions like reference vs. predication or topic[25] vs. comment – which seem to be rather consistent across linguists. In doing so, we would get unified accounts of languages' basic discourse

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[25] In the sense of what is being talked about.

structure. These accounts may then be compared directly, without having to distinguish between language-specific categories and comparative concepts (Haspelmath 2010).

When comparing basic discourse structures we might (amongst other things) want to figure out if the discourse structural units are subject to any ordering restrictions in the individual languages. Thus, in a very basic sense, syntactic comparison is sneaking back into the picture again – but without much-debated categories like CP, IP, VP, vP and the like.

However, the whole endeavour sketched above is faced with a critical question, which has to be taken very seriously: how can we deal with aspects of language(s) that seem to escape from subsumption under discourse categories, e.g. inflectional classes, case government by adpositions, agreement…, i.e. the so called purely formal aspects of language? This question will be considered towards the end of the talk, defending the unusual view that these, too, are pragmatic categories, more precisely: meta-pragmatic categories.

References

Haspelmath, Martin (2007): Pre-established categories don't exist. Consequences for language description and typology. In: Linguistic Typology 11(1), 119–132.

Haspelmath, Martin (2010): Comparative concepts and descriptive categories in crosslinguistic studies. In: Language 86(3), 663–687.

Rijkhoff, Jan (2016): Crosslinguistic categories inmorphosyntactic typology. Problems and prospects. In: Linguistic Typology 20(2), 333–363.

The non-universality of grammatical categories: evidence from pluractional constructions

Simone Mattiola

(University of Bergamo/University of Pavia)

This presentation aims to demonstrate the non-universality of linguistic categories through the typological analysis (based on a 240-language sample) of pluractional constructions.

Pluractionality can be defined as the phenomenon that marks the plurality of situations (states and events) encoded by the verb through any morphological mean that modifies the form of the verb itself.

The main property of these constructions consists in their cross-linguistic heterogeneity. This can be observed basically in all the parameters of analysis, but it is mainly evident at functional and formal level.

Pluractional constructions can express several functions cross-linguistically. The functions that make a construction an instance of pluractionality are: (1) event plurality, (2) spatial distributivity, and (3) participant plurality.

(1) Squamish (Salishan, Central Salish)
Chen **kwel**-*kwelesh-t*   *ta*   *sxwi7shn*
1s.sg   **red**-shoot-tr   det   deer
'I shot the deer several times/continuously' (Bar-el 2008:34)

(2) Barasano (Tucanoan, Eastern Tucanoan)
gahe-rũbũ̃   *bota-ri*   *kea-**kudi**-ka-bã*   *idã*

other-day   post-pl   chop-**iter**-far^pst-3pl   3pl
'The next day they went from place to place chopping down posts (for the new house)' (Jones & Jones 1991:101)

(3) Central Pomo (Pomoan, Russian River)
háyu   š-čé-w   /   š-čé-ṭ-ʔ
dog   hooking_catch-pfv   /   hooking_catch-**pl**-pfv
'He tied up the dog/dogs' (Corbett 2000:244)

    In addition, pluractional markers can encode some further functions, such as: habituality, generic imperfectivity, intensity, event-internal plurality, continuativity, reciprocity, etc. The polifunctionality of pluractional constructions can only be explained through the conceptual space/semantic map model (Mattiola 2016:62).
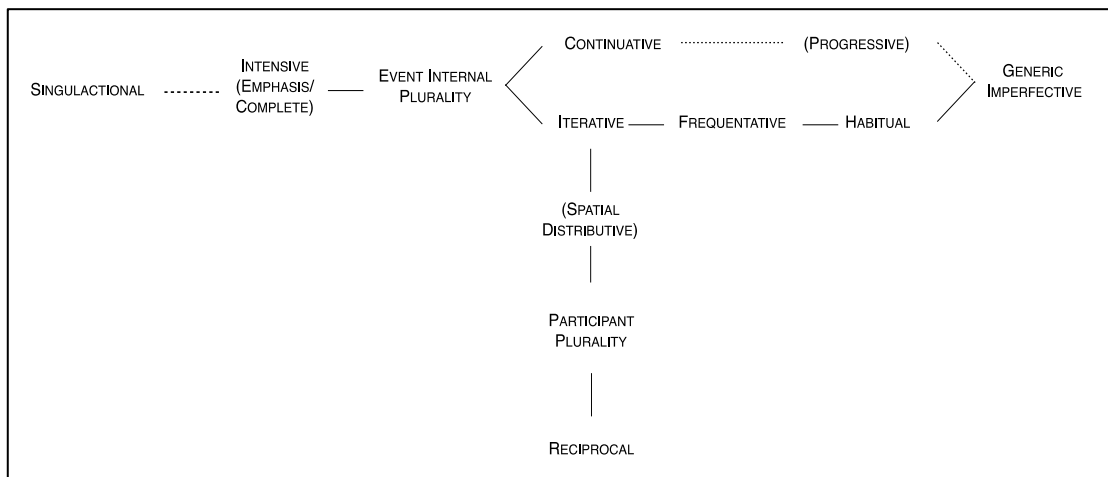
    At formal level, languages express pluractional functions mainly through three strategies: affixation, reduplication, lexical alternation. However, these strategies can co-exist in the same language. Furthermore, also strictly related languages can show relevant differences (cf. Chadic languages of the sample in the table).

Languages	Strategies of Marking			
	Affixation	**Reduplication**	**Lexical alternation**	**Others**
Hausa (Newman 2000, Jaggar 2001)	==	partial (initial/internal)	==	==
Lele (Frajzyngier 2001)	*-wì*	==	==	devoicing of initial consonant
Masa (Melis 1999)	no pluractionality			
Mupun (Frajzyngier 1993)	*-a-, -r-, -e, -ep, -wat, -k-*	==	yes	==
Wandala (Frajzyngier 2012)	*-a-*	partial	yes	==

This large diversity has led the scholars to classify pluractionality in different grammatical categories: aspect (Corbett 2000), actionality (Dressler 1968, Cusic 1981, Xrakovskij 1997), independent category (Corbett 2000). While these models are not satisfactory to describe the phenomenon, they are not completely mistaken: pluractional constructions have indeed different grammatical status in different languages. In other words, they are constructions that share a common function, but that can be expressed in different 'parts' of the grammar of a language. For example, Mattiola (2016:127-205) demonstrated how pluractional constructions are expressed differently in three different languages: in Akawaio (Cariban, Venezuelan) they are an aspect-like category, in Beja (Afroasiatic, Cushitic) an independent phenomenon, and in Maa (Nilotic, Eastern Nilotic) they used to be independent, while now they show several connections with motion and, specifically, directionals.

Pluractional constructions represent a strong evidence for the language-specificity of grammatical categories (Dryer 1997; Croft 2001; Haspelmath 2007, 2010; Cristofaro 2009). Their cross-linguistic peculiarities make evident that categories are applicable only in single languages, that is, they are not universal entities. Typologists must thus be aware that every language has its own set of categories and that we should found our cross-linguistic investigations only on comparative concepts defined on functional/semantic/pragmatic grounds (Haspelmath 2007, 2010).

References

Bar-el, Leonora. 2008. Verbal Number and Aspect in Skw̱xwú7mush. *Recherches Linguistiques de Vincennes* 37: 31-54.

Corbett, Greville G. 2000. *Number*. Cambridge: Cambridge University Press.

Cristofaro, Sonia. 2009. Grammatical categories and relations: universality vs. language specificity and construction-specificity. *Language & Linguistics Compass* 3(1): 441-479.

Croft, William. 2001. *Radical Construction Grammar: syntactic theory in typological perspective*. Oxford: Oxford University Press.

Cusic, David. 1981. *Verbal plurality and aspect*. Stanford, CA: University of Stanford doctoral dissertation.

Dressler, Wolfgang U. 1968. *Studien sur verbalen Pluralität: Iterativum, Distributivum, Durativum, Intensivum in der allgemeinen Grammatik, in Lateinischen und Hethitischen*. Wien: Hermann Böhlaus Nachf.

Dryer, Matthew S. 1997. Are grammatical relations universal? In Bybee, Joan, John Haiman & Sandra Thompson (eds.). *Essays on language function and language type: Dedicated to T. Givón*, 115-143. Amsterdam: John Benjamins.

Frajzyngier, Zygmunt. 1993. *A grammar of Mupun*. Berlin: Dietrich Reimer.

Frajzyngier, Zygmunt. 2001. *A Grammar of Lele*. Stanford, CA: Center for the Study of Language and Information.

Frajzyngier, Zygmunt. 2012. *A Grammar of Wandala*. Berlin: Mouton de Gruyter.

Haspelmath, Martin. 2007. Pre-established categories don't exist: consequences for language description and typology. *Linguistic Typology* 11(1): 119–32.

Haspelmath, Martin. 2010. Comparative concepts and descriptive categories in crosslinguistic studies. *Language* 86: 663-687.

Jaggar, Philip. 2001. *Hausa*. Amsterdam: John Benjamins.

Jones, Wendell & Paula Jones. 1991. *Barasano Syntax*. Dallas, TX: SIL & University of Texas at Arlington.

Mattiola, Simone. 2016. *Typology of pluractional constructions in the languages of the world*. Bergamo & Pavia: University of Bergamo/University of Pavia doctoral dissertation.

Melis, Antonino. 1999. *Description du Masa (Tchad): phonologie, sintaxe et dictionnaire encyclopédique*. Tours: University of Tours doctoral dissertation.

Newman, Paul. 2000. *The Hausa language: an encyclopedic reference grammar*. New Haven, CT: Yale University Press.

Xrakovskij, Viktor S. 1997. Semantic types of the plurality of situations and their natural classification. In Xrakovskij, Viktor S. (ed.). *Typology of Iterative Constructions*, 3-64. München: Lincom.

Nominal vs. verbal reflexives: a categorial opposition?

Nicoletta Puddu

(University of Cagliari)

Reflexives have been extensively studied under different approaches and perspectives, but no clear consensus has been established on the criteria for their definition. Frajzingjer (2000: vi) admits that the term "reflexive" has such a wide formal and functional scope that "it is not very useful in linguistic analysis". Kulikov (2013: 261) points out that the notion of "reflexive", together with "middle voice" is "one of the most important and most intricate parts of the verbal grammar". Scholars who have specifically defined the term "reflexive" usually reason in terms of "prototipicity", since it seems that neither linguistic and formal criteria, nor conceptual or notional criteria are alone sufficient to define units of comparison (see König and Gast 2008).

Moreover, from a morphological point of view, Faltz (1985) traces a general distinction between nominal reflexives and verbal reflexives. Such a position has been accepted in both functional and generative approaches (see for instance Geniušienė 1987, Kemmer 1993, Kazenin 2001, Lidz 2001, Gast 2006, and Dixon 2010). However, as Faltz already notices, the distinction between verbal and nominal reflexives is ultimately hard to draw precisely, and should be possibly viewed as a continuum rather than a discrete partition. Moreover, as Kazenin (2001) points out, verbal and nominal reflexives are often historically related in a language and, consequently, a separate treatment of the two types can be misleading. In particular, problems arise when languages mark objects on the verb. In this case, the distinction between a "verbal strategy" and an "NP strategy" is really a fine one and strictly related to the issue of the distinction between affix and clitic (see Haspelmath 2015).

In French the "clitic" *se* (1) behaves like an NP reflexive strategy, since it appears in the same position as other pronoun objects. However, like a verbal strategy, it cannot appear after a preposition and determines the presence of the auxiliary *être* instead of *avoir* in the accompanying verb (see Faltz 1985, Creissels 2007).

French
1) *Jean s'est défendu*
  'Jean defended himself'

Similarly, in Tswana, the reflexive "affix" *-i-* (2) has the same tonal behaviour and the same position in the stem of object markers as an NP strategy and can be separated by the verb stem from a first person singular regardless of the syntactic relationship (Creissels 2002). However, like a verbal strategy , it is invariable (Faltz 1985).

Tswana, Bantu (Faltz 1985: 59)
2) *go-i-n-tšhwarêla*

INF-RM-1SG.OBJ-hold-BEN
'to forgive me' (lit. 'to hold me for oneself')

Interestingly both French *se* and Tswana *-i-* derive historically from a full reflexive pronoun (Creissels 2002, 2007), showing the well-known diachronic extension from reflexivity to middle voice (see Kemmer 1993, Kazenin 2001). In this paper, I will address the two questions, i.e. the validity of "reflexivity" as a comparative concept and the opportunity of a categorial distinction between verbal and nominal reflexive, in the light of the recent debate on comparative concepts and language specific categories, relying especially on Haspelmath 2015, 2016 and Croft 2016.

References

Creissels, D. (2002), 'Valence verbale et voix en tswana', *Bulletin de la Société de Linguistique de Paris*, 971, 371-426.

Creissels, D. (2007), 'Réflexivisation, transitivité et agent affecté', in Rousseau, A., D. Bottineau & D. Roulland (éds.), *L'énoncé réfléchi*, Rennes: Presses Universitaires de Rennes, 83-106.

Croft, W. (2016), Comparative concepts and language-specific categories: Theory and practice, *Linguistic Typology*, 20, 377-394.

Dixon, R.M.W. (2010), *Basic Linguistic Theory*, 1, Oxford, Oxford University Press.

Faltz, L.M. (1985), *Reflexivization: A Study in Universal Syntax*, New York, Garland.

Frajzyngier, Z (2000), Introduction, in Frajzyngier, Z., Curl, T. (eds.), *Reflexives: Forms and Functions*, Amsterdam and Philadelphia, John Benjamins, vii-xv.

Gast, V. (2006), *The Grammar of Identity: Intensifiers and Reflexives in the Germanic Languages*, London, Routledge.

Geniušienė, E. (1987), *The Typology of Reflexives*, Berlin and New York, Mouton de Gruyter.

Haspelmath. M. (2015), Defining vs. diagnosing linguistic categories: a case study of clitic phenomena, in Błaszczak, Joanna & Klimek-Jankowska, Dorota & Migdalski, Krzysztof (eds.), *How categorical are categories?*, Berlin De Gruyter Mouton, 273-304.

Haspelmath, M. (2016), The challenge of making language description and comparison mutually beneficial, *Linguistic Typology*, 20, 299-304.

Kazenin, K. (2001), Verbal reflexives and the middle voice, in Haspelmath M. (et al.), *Language Typology and Language Universals. An international Handbook,* Berlin-New York: Mouton De Gruyter, 916-927.

Kemmer, S. (1993), *The Middle Voice: A Typological and Diachronic Study*, Amsterdam and Philadelphia, John Benjamins.

König, E., Gast V. (2008), Reciprocals and reflexives - typology, description and theory, in König E., Gast V.(eds.), *Reciprocals and Reflexives. Cross-Linguistic and Theoretical Explorations*. Berlin: Mouton, 1-32.

Kulikov, L. (2013), Middle and reflexive, in Luraghi, S., Parodi, C. (eds.), *The Bloomsbury Companion to Syntax*, London and New York, Bloomsbury, 261-280.

Lidz, Jeffrey (2001), The argument structure of verbal reflexives, *Natural Language & Linguistic Theory*, 19: 311-353.

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Situating Epistemicity – Weak Epistemic Meanings and the Case of *Might*

Pascal Hohaus

(University of Hanover)

There has been a proliferation of studies in the semantics of modal expressions, i.e. those linguistic items that modify the proposition in terms of "notions such as possibility, probability, necessity, likelihood, obligation, permission, and intention" (Aarts/Chalker/Weiner 2014); this is hardly surprising given the rather abstract nature of these concepts and categories. While there was a focus on modal verbs in the 1970s and 1980s (Hermerén 1978, Joos 1964; Palmer 1990), authors then showed more interest in "modal carriers" (Hoye 2005) other than verbs, such as adjectives (van Linden 2012), adverbs (Biber/Finegan 1988), e.g. *possibly* (Nilsen 2004) or *indeed* (Traugott/Dasher 2002), and nouns (Schmid 2000). There has even been a growing interest in the modal status of certain expressions that do not fit into this more elaborate system of modality, such as the bundles *I think* or *I believe* (Thompson/Mulac 1991).

So, nowadays, the concept of modality is applied to a lot of linguistic expressions that had not been described as modal expressions before. In meta-semantic terms, the intension of the concept of modality has been reduced, whereas, by definition, the extension has been increased. From an ontological perspective, researchers have focused very much on identifying or pinpointing the meaning of modal expressions. Thus, research on linguistic modality has hardly investigated how these meanings in fact develop. From an epistemological perspective, research has been concerned almost exclusively with analysing modal expressions as representing a specific word class; they do not investigate the relations between a modal expression and various grammatical categories (such as direct object, clause type etc.) and semantic categories (such as animate subjects vs. inanimate subjects) in the immediate co-text. As such they fail to make sense of modal verbs as being part of a larger pattern, construction or Gestalt.

This paper therefore attempts to answer two questions: How do the syntactic and semantic surroundings of a modal expression contribute to the development of epistemic meaning? And, following that, how can the concept of epistemicity be best understood in more general terms?

In theoretical terms, the study is embedded in Construction Grammar (as outlined in Croft/Cruse 2004; Fried/Östmann 2004Goldberg 1996, 2006;), and will define modalised clauses with *might* as instantiations of epistemic auxiliary constructions (EACs). Following assumptions made in Frame Semantics (Fillmore 1982, 1985), these instantiations of EACs will be regarded as being part of a REASONING_frame. In applying these concepts to the investigation of corpus data, the study will make use of various Neo-Firthian notions. Drawing on data from the British National Corpus, the study analyses the syntactic and semantic surroundings of the modal auxiliary *might* (N = 1000) by means of the notions of collocation, colligation and semantic preference. Preliminary findings corroborate the assumption that modality is best understood as an ad hoc concept and modal meanings are best understood as ad hoc meanings (in the sense of Casasanto/Lupyan 2015), i.e. concepts and meanings that are generated in a situation for a specific purpose. This gives evidence for the concept of "situated conceptualisation" that has been of some interest in the cognitive sciences recently (Barsalou 2003, Barsalou 2016a, 2016b; Barsalou/Wiemer-Hastings 2005).

References

Aarts, Bas, Sylvia Chalker, and Edmund Weiner. Ed. 2014. *Oxford Dictionary of English Grammar.* Oxford: Oxford University Press.

Barsalou, Lawrence W. 1992. "Frames, concepts, and conceptual fields." In *Frames, Fields, and Contrasts*, ed by. Lehrer, Adrienne, and Eva F. Kittay, 21-71. New Jersey: Hillsday.

Barsalou, Lawrence W. 2003. "Situated simulation in the human conceptual system" *Language and Cognitive Processes* 5/6, 513-562. East Sussex: Psychology Press.

Barsalou, Lawrence W. 2016a. "Situated conceptualization offers a theoretical account of social priming." *Current Opinion in Psychology* 12, 6–11.

Barsalou, Lawrence W. 2016b. "Situated conceptualization: Theory and applications." In: *Foundations of embodied cognition, Volume 1: Perceptual and emotional embodiment. Eds. by* Coello, Yann and Martin H. Fischer, 11-37. East Sussex, UK: Psychology Press.

Barsalou, Lawrence W., and Katja Wiemer-Hastings. 2005. "Situating abstract concepts." In *Grounding Cognition. The Role of Perception and Action in Memory, Language and Thinking*, ed. by Pecher, Diane, and Rolf A. Zwaan, 129-163. Cambridge: Cambridge University Press.

Biber, Douglas and Edward Finegan. 1988. "Adverbial stance types in English." *Discourse Processes* 11.1, 1-34.

Casasanto, Daniel and Gary Lupyan. 2015. "All concepts are ad hoc concepts." In *The Conceptual Mind: New Directions in the Study of Concepts*, ed. by Margolis, Eric and Steven Laurence, 543-566. Cambridge: MIT Press.

Croft, William and David A. Cruse. 2004. *Cognitive Linguistics.* Cambridge: Cambridge University Press.

Fillmore, Charles. 1982. "Frame semantics." In *Linguistics in the Morning Calm*, ed. by The Linguistic Society of Korea, 111–137. Seoul: Hanshin.

Fillmore, Charles. 1985. "Frames and the semantics of understanding." *Quaderni de Semantica* 6.2, 222-254.

Firth, John R. 1968. "A Synopsis of Linguistic Theory, 1930-1955." In *Studies in Linguistic Analysis,* ed. by The Philological Society, 1-32. Oxford: Basil Blackwell.

Fried, Mirjam, and Jan-Ola Östman. 2004. "Construction Grammar: A thumbnail sketch." In *Construction Grammar in a cross-language perspective*, ed. by Fried, Mirjam, and Jan-Ola Östman, Amsterdam/Philadelphia: John Benjamins, 11–86.

Goldberg, Adele. 1996. *A construction Grammar approach to argument structure.* Chicago/London: The University of Chicago Press.

Goldberg, Adele E. 2006. *Constructions at Work: The Nature of Generalization in Language*. Oxford: Oxford University Press.

Hermerén, Lars. 1978. *On modality in English. A study of the semantics of the modals.* Lund: GWK Gleerup.

Hoye, Leo Francis. 2005. "'You may think that; I couldn't possibly comment!' Modality studies: Contemporary research and future directions. Part I." *Journal of Pragmatics* 37. 1295–1321.

Joos, Martin. 1964. *The English verb: Form and meanings.* Madison/Milwaukee: The University of Wisconsin Press.

Palmer, Frank R. 1990. *Modality and the English Modals.* London/New York: Longman.

Schmid, Hans-Jörg. 2000. "'Presupposition can be a bluff': How abstract nouns can be used as presupposition triggers." *Journal of Pragmatics* 33, 1529-1552.

Thompson, Sandra A., and Anthony Mulac. 1991. "The discourse conditions for the use of the complementizer *that* in conversational English." *Journal of Pragmatics* 15.3, 237-251.

Traugott, Elizabeth C., and Richard B. Dasher. 2002. *Regularity in semantic change.* Cambridge: Cambridge University Press.

WORKSHOP 12

Linguistic Typology and Cross-Linguistic Psycholinguistics

James Myers & Tsung-Ying Chen
(National Chung Cheng University)

Grammarians and psycholinguists are both very interested in cross-linguistic differences and universals, but they go about their data collection and theorizing in quite different ways. Typological research on grammar traditionally builds on pre-existing grammatical descriptions, reanalyzed by typologists who may not be able to speak most of the languages they include in their survey, supplemented by corpora of natural language production or informal native-speaker judgments, with data sampled from a large and typologically varied set of languages, many with relatively few speakers or signers, chosen to maximize representativeness, in order to generalize across all possible human languages, not merely across attested human languages (see, e.g., Song, 2010).

By contrast, cross-linguistic psycholinguistics traditionally involves experiments run by large research teams consisting of native speakers of all of the languages being tested, who use artfully selected test materials and controlled procedures to compare, due to practical limitations, only two or three languages at a time, which are generally major world languages, chosen either for accessibility to the research team or for testing specific cross-language variables (see, e.g., Bates et al., 2001).

This workshop aims to bring these two worlds closer together. For typologists, cross-linguistic variation in language processing and the relative processing difficulty of different linguistic features are theoretically important but difficult to study without adopting psycholinguistic methods like controlled experiments. For psycholinguists, there are serious practical challenges to collecting sufficiently large and varied cross-linguistic samples while maintaining the methodological consistency needed for typological analysis, especially when studying populations without formal test-taking traditions.

There seems to be increasing awareness in the international linguistics community of the need for typologists and psycholinguists to work together, with the increasing use of experimentation by typological grammarians (e.g., Bickel et al., 2015), the increasing variety of languages studied by psycholinguists (e.g., Norcliffe et al., 2015), and the increasing number of workshops devoted to the topic, including the independently organized, but more narrowly focused, workshop on Morphological Typology and Linguistic Cognition, to be held during the LSA's 2017 Linguistic Summer Institute.

A variety of cross-linguistic psycholinguistic data sources can be used to address typological questions, not just traditional laboratory experiments but also processing-oriented fieldwork (e.g., Whalen & McDonough, 2015) and processing-oriented corpora, including collections of speech errors (Schütze & Ferreira, 2007) and databases of previously collected experimental results (e.g., Keuleers & Balota, 2015). While typological grammarians have become increasingly interested in artificial grammar learning experiments, in which participants are taught patterns that obey or violate hypothesized typological universals (e.g., Culbertson, 2012), such studies best fit our workshop if they are run across speakers/signers of different languages to see if the hypothetically favored grammar type is learned more easily regardless of first language experience.

Thus we are particularly looking for presentations that address questions like the following:

1.   How does cross-linguistic variation affect language processing, as revealed in experiments or psycholinguistic corpora? For example, how do speakers/signers of languages that differ in morphology (e.g., rich vs. impoverished inflectional systems), phonology (e.g., complex vs. simple syllables), or orthography (e.g., alphabetic vs. non-alphabetic) differ in their real-time access of words in the mental lexicon? Are there are fundamental similarities in the syntactic parsing strategies in speakers/signers of languages of different syntactic types (e.g., left/right-headed, with/without null pronouns), or does every language require its own distinct set of parsing strategies?

2.   How can cross-linguistic experiments and psycholinguistic corpora help explain cross-linguistic variation and universals? Are typologically more common grammatical features easier for adults to process, even after taking into account experience with their own first language (L1)? Are certain L1 features easier to learn than others, regardless of the L1? Is this also true for second language (L2) acquisition, or in artificial grammar learning experiments, even when the influence of the L1 is taken into account? Do certain L1 properties tend to be transferred to the L2 or artificial language, regardless of the L1 or L2?

3.   How can the size and scope of cross-linguistic psycholinguistic samples be increased while maintaining methodological consistency and rigor? Are there experimental methods that are equally natural in all cultures, and if not, how could methodological variation be taken into account when studying linguistic variation? Should cross-linguistic psycholinguistics move away from the traditional single-team approach to a more decentralized Web-coordinated approach, represented by projects like the Endangered Languages Archive (Nathan, 2013), where independent researchers collect data for their own purposes, but also share some for the benefit of typological analysis (Myers, 2016)? If a speech/sign community cannot enforce covert processing standards (e.g., arbitrarily requiring members to process different structures at different speeds), do genetic relatedness and geographic proximity remain a concern when psycholinguists sample languages for testing universal claims, or need they only be concerned with sampling a sufficient variety of language types?

References

Bates, E., Devescovi, A., & Wulfeck B. (2001). Psycholinguistics: A cross-language perspective. *Annual Review of Psychology, 52*, 369-96.

Bickel, B., Witzlack-Makarevich, A., Choudhary, K. K., Schlesewsky, M., & Bornkessel-Schlesewsky, I. (2015). The neurophysiology of language processing shapes the evolution of grammar: Evidence from case marking. *PLoS ONE, 10*(8):e0132819.

Culbertson, J. (2012). Typological universals as reflections of biased learning: Evidence from artificial language learning. *Language and Linguistics Compass, 6*, 310-329.

Keuleers, E., & Balota, D. A. (2015). Megastudies, crowdsourcing, and large datasets in psycholinguistics: An overview of recent developments. *The Quarterly Journal of Experimental Psychology, 68* (8), 1457-1468.

Myers, J. (2016). Meta-megastudies. *The Mental Lexicon, 11*(3), 329-349.

Nathan, D. (2013). Access and accessibility at ELAR, a social networking archive for endangered languages documentation. In M. Turin, C. Wheeler & E. Wilkinson (Eds.) *Oral literature in the digital age: Archiving orality and connecting with communities*. Cambridge, UK: Open Book Publishers.

Norcliffe, E., Harris, A. C., & Jaeger, T. F. (2015). Cross-linguistic psycholinguistics and its critical role in theory development: Early beginnings and recent advances. *Language, Cognition and Neuroscience, 30*(9), 1009-1032.

Schütze, C. T., & Ferreira, V. S. (2007). What should we do with our speech error corpora? Notes from the panel discussion. *MIT Working Papers in Linguistics, 53*, 383-393.

Song, J. J. (2010). *The Oxford handbook of linguistic typology*. Oxford: Oxford University Press.

Whalen, D. H., & McDonough, J. (2015). Taking the laboratory into the field. *Annual Review of Linguistics, 1*(1), 395-415.

A universal harmony bias in syntax? Cross-linguistic experimental evidence

Jennifer Culbertson & Guillaume Braquet
(University of Edinburgh)

Syntactic *harmony* (Greenberg 1963, Hawkins 1983), or consistent head direction (Travis 1984, Baker 2001) is perhaps the most well-known typological generalization of syntax. While it has been revised in light of new theoretical and empirical findings over the years (e.g., Dryer 1992, Biberauer et al. 2014), many linguists continue to assume that it reflects some underlying "law of human behavior" (Greenberg 1966). Nevertheless, in the absence of clear evidence, there is ample room for doubt. Like most typological generalizations, harmony is a statistical tendency, and researchers have pointed to the possibility that correlations in word order across categories may largely reflect the effects of language contact and shared inheritance rather than universal properties of human cognition (Dunn et al. 2011, Ladd et al. 2014). With these issues in mind, Culbertson et al. (2012) and Culbertson & Newport (2015) have attempted to provide behavioral evidence of a harmony bias using artificial language learning experiments. These studies suggest that English speaking adults and children favor harmonic orders of nouns and different nominal modifiers (adjectives, numerals): both populations of learners acquire such patterns more readily, and asymmetrically change non-harmonic to harmonic patterns. However, these studies have an obvious limitation–because they target English learners, whose native language is harmonic in the nominal domain (Num-Adj-N), any apparent harmony bias may be based on transfer. We present new evidence from *French-speaking children*, whose native language is non-harmonic in this domain (Num-N-Adj). Children (N=48, mean age 6;7) were taught a miniature language consisting of 10 nonsense nouns and 10 modifiers (5 adjectives, 5 numerals) which resembled the corresponding French words (e.g., [kitʁ] for *quatre* 'four'). The words were combined to make simple two word phrases, comprised of a noun and a single modifier, either an adjective or a noun. These phrases were used to described pictures of objects modified by a property or a numerosity by a cartoon 'informant' during training, and were produced by learners themselves during testing. Following Culbertson et al. (2012) and Culbertson & Newport (2015), participants were trained on one of four languages each with a dominant pattern, plus some residual use of the non-dominant order. The dominant pattern was either harmonic (both modifiers tending to be pre-nominal, or both tending to be post-nominal) or non-harmonic (one modifier in each position). For example, the condition most like French was 75% post-nominal adjectives, and 75% pre-nominal numerals. Our results indicate that French-speaking child learners prefer a harmonic ordering pattern, in contrast to their own language, providing the clearest evidence yet that a typological preference for harmony may be linked to universal cognitive pressures. However, there was also a clear influence of the native language: most learners tended to produce a distribution of orders which was predominantly harmonic *and* post-nominal (i.e., N-Adj and N-Num), regardless of the input. We discuss preliminary efforts to expand on this result by using a web-based version of the experiment to target adult speakers of a much wider range of languages.

References

Baker, M. (2001). *The atoms of language: The mind's hidden rules of grammar.* Basic Books, New York, NY.

Biberauer, T., Holmberg, A., and Roberts, I. (2014). A syntactic universal and its consequences. *Linguistic Inquiry*, 45(2):169–225.

Culbertson, J., Smolensky, P., and Legendre, G. (2012). Learning biases predict a word order universal. *Cognition*, 122:306–329.

Culbertson, J. and Newport, E. L. (2015). Harmonic biases in child learners: In support of language universals. *Cognition*, 139:71–82.

Dryer, M. (1992). The Greenbergian word order correlations. *Language*, 68(1):81–183.

Dunn, M., Greenhill, S., Levinson, S., and Gray, R. (2011). Evolved structure of language shows lineage-specific trends in word-order universals. *Nature*, 473(7345):79–82.

Greenberg, J. (1963). Some universals of grammar with particular reference to the order of meaningful elements. In Greenberg, J., editor, *Universals of Language*, pages 73–113. MIT Press, Cambridge, MA.

Greenberg, J. (1966). *Language Universals*. Mouton, The Hague.

Ladd, D. R., Roberts, S. G., and Dediu, D. (2014). Correlational studies in typological and historical linguistics. *Annual Review of Linguistics*, 1.

Travis, L. (1984). *Parameters and Effects of Word Order Variation*. Ph.D. dissertation, MIT.

Artificial grammar learning of vowel harmony patterns: Universal biases and L1 transfer

James White, René Kager, Tal Linzen, Giorgos Markopoulos, Alexander Martin, Andrew Nevins, Sharon Peperkamp, Krisztina Polgárdi, Nina Topintzi, & Ruben van de Vijver
(UCL; Utrecht University; LSCP/IJN/ENS/EHESS/CNRS; Aristotle U. of Thessaloniki; LSCP/DEC/ENS; UCL; LSCP/ENS/EHESS/CNRS; Hungarian Academy of Sciences; Aristotle U. of Thessaloniki; & Düsseldorf University)

To what extent is phonological learning driven by universal biases? Artificial grammar learning (AGL) experiments have emerged as a dominant method for probing this question (e.g. Baer-Henney & van de Vijver 2012, White 2014; Moreton & Pater 2012a,b). However, virtually all AGL studies face the limitation that, unlike in real L1 acquisition, learners in AGL experiments already have a native language. AGL experiments have rarely been replicated across speakers of different L1s, so we still have a poor understanding of how L1 transfer effects and universal biases interact in AGL tasks. In the present study, we investigate this interaction by running the same AGL experiment across labs in six countries (England, France, Germany, Greece, Hungary, Netherlands).

Our experiment focuses on vowel harmony. Participants are first trained on nonce CVCV stems paired with corresponding affixed forms (CV-CVCV or CVCV-CV). Training stems always follow front/back harmony (front vowels: [i,e], back vowels: [u,o]), and the affix vowels alternate depending on the stem vowels. Participants are later tested (forced-choice) on disharmonic stems, where they can choose to harmonise the affix vowel to the first or second vowel of the stem. Their training is ambiguous; all training stems are harmonic so participants have no explicit information about which vowel should trigger harmony in disharmonic stems. We measure how often participants choose to

harmonize the affix vowel to the local vowel of the stem vs. the non-local vowel. We also manipulate two additional variables (between-subjects): Affix Type (prefix vs. suffix) and Stress Location (initial vs. final stem vowel).

This design allows us to examine several influences on vowel harmony, including locality, stress/prominence, vowel height, and morphology. Moreover, our six L1 languages, which differ in terms of vowel inventory and vowel patterning, stress system, and existence of vowel harmony (Hungarian vs. the others), will allow us to analyse the extent to which participant L1 has affected learning.

At present, we have collected data from 33 English speakers and 54 German speakers. The results show a significant, robust effect of Affix Type for speakers of both languages. Participants who were trained on suffixes usually harmonized to the local vowel of the stem (English: 70% local harmony; German: 79%) whereas participant who were trained on prefixes harmonized to the local and non-local vowels at more equal rates (English: 42% local harmony; German 56%). The near-chance averages for prefixes were not due to participants failing to learn any harmony; rather, the distributions show that individual participants in the prefix condition usually harmonized to one vowel consistently, but they were more likely than those in the suffix condition to choose the non-local vowel. This asymmetry suggests that prefixes and suffixes are structured differently with respect to the stem in a way that affects the learning of vowel harmony.

There was no effect of Stress Location and no differences depending on the height of the vowels, at least for English and German speakers. Data collection for the other four languages is in progress and we anticipate having this finished before the conference.

References

Baer-Henney, Dinah & Ruben van de Vijver. 2012. On the role of substance, locality, and amount of exposure in the acquisition of morphophonemic alternations. *Laboratory Phonology 3*(2): 221–250.

Moreton, Elliott & Joe Pater. 2012a. Structure and substance in artificial-phonology learning. Part I: Structure. *Language and Linguistics Compass* 6(11): 686–701.

Moreton, Elliott & Joe Pater. 2012b. Structure and substance in artificial-phonology learning. Part II: Substance. *Language and Linguistics Compass* 6(11): 702–718.

White, James. 2014. Evidence for a learning bias against saltatory phonological alternations. *Cognition* 130(1): 96 – 115.

An experimental study of the learnability advantage of agglutinative over fusional morphology

Alexis Dimitriadis, Natalie Boll-Avetisyan, & Tom Fritzsche

(Utrecht Institute of Linguistics OTS; University of Potsdam, & University of Potsdam)

The trade-off between fusional and agglutinative morphological systems is commonly approached in terms of learnability: it should be easier to acquire transparent agglutinative morphology than opaque fusional morphology (e.g., Pinker 1996; Zuidema 2003; Neeleman & Szendrői 2005; Fasanella 2014). Our study directly compares the learnability of fusional and agglutinative systems in an artificial language learning task (Reber 1967). In addition, we assess the influence of the native morphological system of the learners, and show that it affects learning rate and outcome.

20 speakers of German and 20 of Hungarian (typical fusional and agglutinative languages) participated in the study. Each participant was randomly assigned to either the agglutinative or the fusional condition. The artificial languages were made up of morphologically complex nonwords, consisting of bisyllabic stems marked with prefixes that indicate number (singular, dual, plural) and gender (specifically, semantically-based noun classes: objects, foods, and animals; cf. Corbett 1991 for their characterization as "genders"). This grammatical system is typologically attested, being loosely patterned after that of Swahili and related Bantu languages. In the fusional condition (a), stems have a single prefix that indicates a specific number-gender combination; while in the agglutinative condition (b) there are two separate prefixes.

> a. bo:–ki:tɛp   (fusional)
> sg+class3–cookie
>   'one cookie'
> b.   vu:–zy:–ki:tɛp   (agglutinative)
> sg–class3–cookie
> 'one cookie'

In contrast to classic artificial language learning paradigms with separate training and test phases, we employed a novel paradigm of concurrent training and testing. Participants were exposed to 360 trials. In each trial, an inflected word was presented auditorily along with two images on the screen: the target and the distractor, which differed from the target in number, gender, or both. Participants had to identify the image matching the word. They received feedback after each response. By design, it was impossible to learn the stems: To improve their performance during the experiment, participants had to acquire the morphology.

Data were analyzed using Generalized Additive Mixed Models (van Rij et al. 2015) to model non-linear effects over time. Learning took place in all groups, and accuracy plateaued around 80 to 90 percent. Learning rate and ultimate attainment were highest for the agglutinative system, with no difference found between German and Hungarian participants ($z = 0.94$, $p = .35$, n.s.). But while the agglutinative system was learned equally well by both groups of speakers, German speakers scored higher than Hungarians ($z > 1.96$, $p < .05$). Acquisition of the fusional system benefits more from native language experience, indicating that it is the harder task and draws on learned, and transferable, competencies.

Our study is a first step toward measuring the contribution of diverse factors to the learnability of morphology, and ultimately toward a learning theory that can account for it.
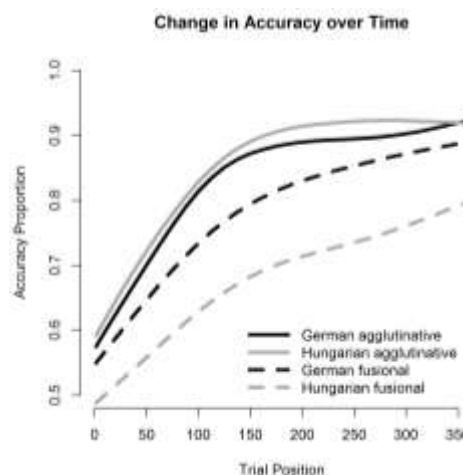
References

Corbett, G. 1991. *Gender*.

Fasanella, A. 2014. *On How Learning Mechanisms Shape Natural Languages*. Ph.D. Thesis, U. Autònoma de Barcelona.

Neeleman, A. & K. Szendrői. 2005. Pro-Drop and Pronouns. *Proc. WCCFL 24*.

Pinker, Steven. 1996. *Language Learnability and Language Development*. 2nd edn.

Reber, A. S. 1967. Implicit learning of artificial grammars. *Journal of Verbal Learning and Verbal Behavior* 6(6). 855–863.

iRij, J. et al. 2015. *Itsadug: Interpreting Time Series and Autocorrelated Data Using GAMMs*. R package v.1.0.5.

Zuidema, W. 2003. Modeling language acquisition, change and variation. In S. Kirby (ed.), *Language Evolution and Computation.*

Acceptability judgment tasks as a measure of variation within and across languages with "flexible" constituent order

Savithry Namboodiripad

(University of California, San Diego; University of Michigan, Ann Arbor)

Languages vary as to how flexible their constituents (subject, object, & verb) are, and previously-described cases of contact-induced change in constituent order have shown that languages with flexible orders become more rigid due to contact (Heine 2008). One barrier to studying flexibility from a typological perspective is that it is difficult to operationalize degree of flexibility in a way which allows for cross-linguistic comparisons. Most languages have a canonical order in which the constituents appear. Here, I propose a cross-linguistically valid operational definition of flexibility: measuring the degree to which speakers prefer the canonical order and disprefer non-canonical orders in discourse-neutral contexts, as measured in a formal acceptability judgment experiment. I present a series of experiments demonstrating that this methodology is valid and can capture meaningful differences in flexibility, within and across languages.

The first set of experiments compares English, a rigid SVO language, Malayalam (Dravidian), and Korean, both flexible SOV languages. Participants rated the six logical variants of transitive sentences, with animate subjects and inanimate objects, on a 7-point scale. The results show that English speakers clearly prefer the canonical order, rating SVO significantly higher than all other orders. The Malayalam experiment (conducted in the field) shows that verb-position predicts acceptability for Malayalam-speakers, who only show a slight numerical preference for canonical SOV. The Korean-speakers rate SOV significantly higher than all other orders, and, like Malayalam, verb position plays a role in the non-canonical orders.

Moving to variation within languages, I present two follow-up experiments from Korean and Malayalam demonstrating within-language differences in flexibility based on language experience. Preference for canonical SOV order is significantly higher for English-dominant Korean-speakers as compared to Korean-dominant speakers, indicating reduced flexibility. Likewise, in Malayalam, younger speakers rate the canonical SOV order higher than other orders, while older speakers do not. Age correlates with language contact in this population, suggesting that language contact is negatively correlated with flexibility in constituent order. Furthermore, because low acceptability ratings are associated with processing difficulty, and older people have been found to be more sensitive to structures which are difficult to process, this pattern is the exact opposite of what we would expect if general cognitive decline was explaining the differences between age groups (Waters & Caplan 2001). Acceptability judgment tasks are portable, can be used with audio stimuli (important when written stimuli are impossible or impractical, as in these Korean and Malayalam populations), and can capture the fine-grained distinctions between sentence types. In addition, the data presented here is evidence for a shift from flexible to rigid in a case of ongoing language contact, and it demonstrates that the flexible-rigid pattern cannot be described by wholesale borrowing of the surface word order of the contact language. Speakers who are English-proficient are not just translating English sentences into Korean and Malayalam, rather, contact with English is affecting the degree to which speakers prefer

the canonical order in the flexible language. This approach can both enrich linguistic descriptions and help motivate observed typological distributions.

Cross-linguistic variation in phonemic decomposition

Tsung-Ying Chen & James Myers
(National Chung Cheng University)

The simpler a language's syllables, the less speakers need to decompose them into phonemes. This hypothesis is consistent with studies on Mandarin (maximally CCVC syllables, moderately complex [ModComp] according to Haspelmath et al., 2005) and English (complex syllables [Comp]) (O'Seaghdha et al., 2010; Norris & Cutler, 1988; Tseng et al., 1996). We provide new evidence for the hypothesis by reanalyzing two existing cross-linguistic datasets in terms of two factors (Luce & Large, 2001): phonotactic probability (PP), which depends on phonemic decomposition, and neighborhood density (ND), which does not.

First, we reanalyzed acceptability judgments of random nonwords in English (Bailey & Hahn, 2001), Mandarin (Myers, 2015), and Cantonese (Kirby & Yu, 2007), another ModComp language. The studies all defined ND as the number of words with edit distance of one and PP in terms of bigram frequencies. By-item mean judgment scores (English, Cantonese: multi-point scale transformed to 0-1 range; Mandarin: 0 vs. 1) and ND and PP were converted to z scores within language to eliminate possible confounds from cross-study scale differences in responses, ND, or PP. A multiple linear regression revealed a striking similarity in Mandarin and Cantonese despite the source studies' methodological differences. Moreover, both of these ModComp languages had consistently stronger ND effects and weaker PP effects than the Comp language, suggesting greater phonemic decomposition in the latter (Figure 1; line lengths indicate data ranges).

Second, we reanalyzed the by-item mean naming latencies for 520 pictured objects shared online by Bates et al. (2003) for Bulgarian, English, German, and Hungarian (Comp languages), and Italian, Mandarin, and Spanish (ModComp). ND and PP values were recalculated from electronic dictionaries (English: Lenzo, 2014; Mandarin: Denisowski et al., 2016; Spanish: Cuetos et al., 2011; the rest: Deri & Knight, 2016). PP was quantified as mean bigram transition probability and ND as PLD20 (Yarkoni et al., 2008: mean phonological Levenshtein (edit) distance from the twenty nearest neighbors). A mixed-effects linear regression, with random intercepts for pictures and languages, predicted log latencies from ND and PP and eight other nuisance variables (e.g., lexical frequency), with syllable complexity (Comp vs. ModComp) as an interaction, and all variables converted to z scores within language. Significant interactions of syllable complexity with both ND and PP went in the expected directions (Figure 2): for ND, all ModComp languages showed stronger positive effects than all Comp languages, whereas for PP, all but one Comp language (English) showed negative effects and no ModComp languages did. This pattern suggests that object naming is slowed by neighbor competition, but particularly so in ModComp languages, while only in Comp languages is naming sped up by phonotactic typicality.

Factoring out other potential influences on phonemic decomposition (e.g., orthography) would require compiling a larger, yet still experimentally consistent, cross-linguistic database. Though impractical for single research teams (Bates et al. needed 22 authors to test just seven languages), typologically sophisticated psycholinguistics may become feasible via online tools for sharing data

among independent experimenters (Myers, 2016), similar to how typological grammarians build on existing grammatical descriptions.
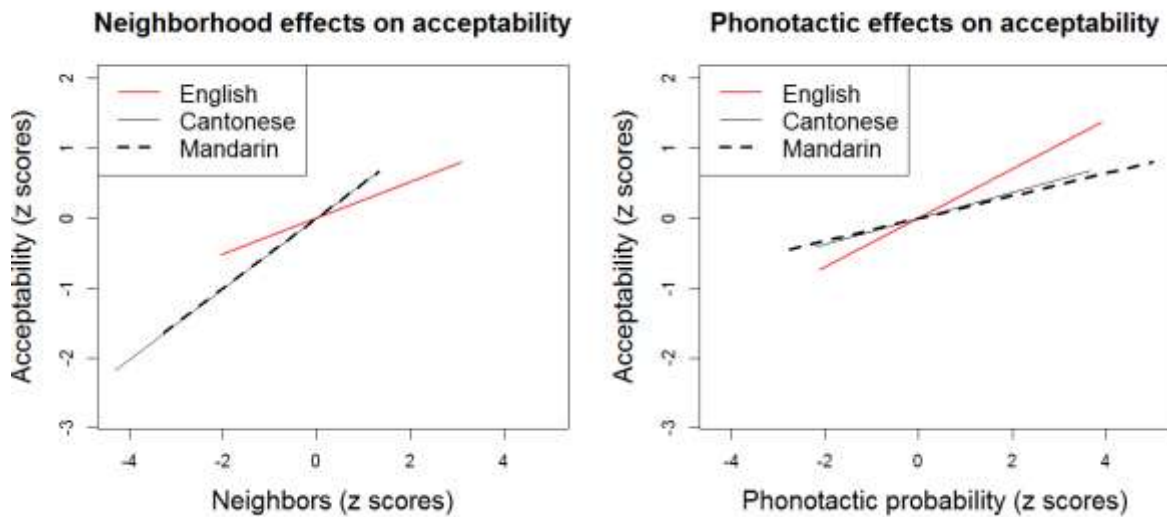
Figure 1.
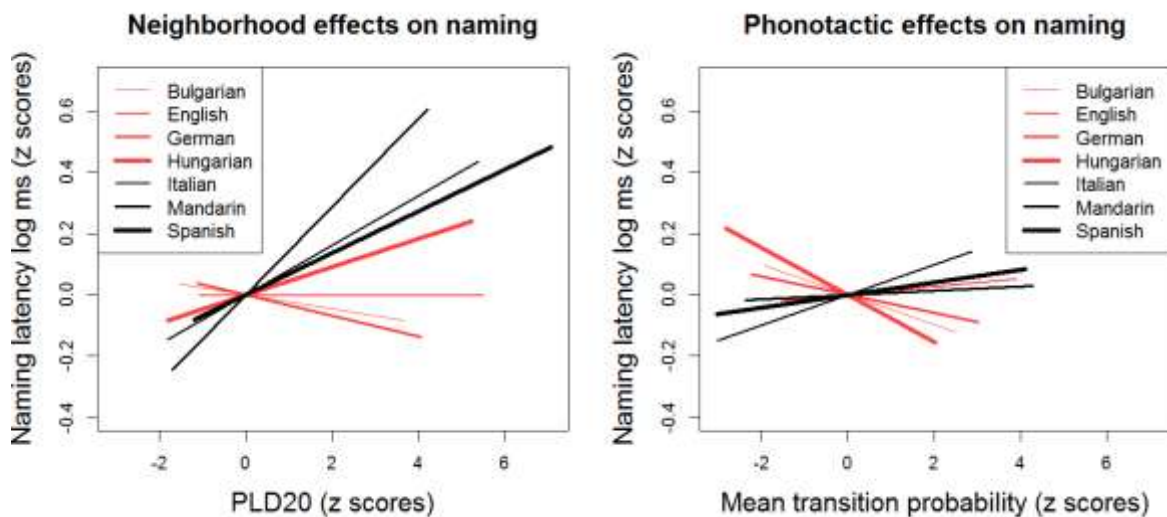
Figure 2.

References

Bailey, T. M., & Hahn, U. (2001). Determinants of wordlikeness: Phonotactics or lexical neighborhoods? *Journal of Memory & Language, 44*, 569-591.

Bates, E., et al. (2003). Timed picture naming in seven languages. *Psychonomic Bulletin & Review, 10* (2), 344-380.

Cuetos, F., Glez-Nosti, M., Barbón, A., & Brysbaert, M. (2011). SUBTLEX-ESP: Spanish word frequencies based on film subtitles. *Psicológica, 32*, 133-143.

Denisowski, P. A. et al. (2016). CC-CEDICT (version cedict_ts.u8). https://www.mdbg.net/chindict/chindict.php?page=cedict. Retrieved November 11, 2016.

Deri, A., & Knight, K. (2016). Grapheme-to-phoneme models for (almost) any language. *Proceedings of the 54th Annual Meeting of the Association for Computational Linguistics*, pp. 399-408.

Haspelmath, M., Dryer, M.S., Gil, D., & Comrie, B. (Eds.) (2005). *The world atlas of language structure*. Oxford: Oxford University Press.

Kirby, J. P., & Yu, A. C. L. (2007). Lexical and phonotactic effects on wordlikeness judgments in Cantonese. *Proceedings of the International Congress of Phonetic Sciences, 16*, 1389-1392.

Lenzo, K. et al. (2014). Carnegie Mellon University Pronouncing Dictionary (version 0.7b). http://www.speech.cs.cmu.edu/cgi-bin/cmudict. Retrieved November 14, 2016.

Luce, P. A., & Large, N. R. (2001). Phonotactics, density, and entropy in spoken word recognition. *Language & Cognitive Processes, 16* (5/6), 565-581.

Myers, J. (2015). Markedness and lexical typicality in Mandarin acceptability judgments. *Language & Linguistics, 16*(6), 791-818.

Myers, J. (2016). Meta-megastudies. *The Mental Lexicon, 11*(3), 329-349.

Norris, D., & Cutler, A. (1988). The relative accessibility of phonemes and syllables. *Perception & Psychophysics, 43*(6), 541-550.

O'Seaghdha, P. G., Chen, J.-Y., & Chen, T.-M. (2010). Proximate units in word production: Phonological encoding begins with syllables in Mandarin Chinese but with segments in English. *Cognition, 115*, 282-302.

Tseng, C.-H., Huang, K.-Y., & Jeng, J.-Y. (1996). The role of the syllable in perceiving spoken Chinese. *Proceedings of the National Science Council, Part C: Humanities and Social Sciences, 6* (1), 71-86.

Yarkoni, T., Balota, D., & Yap, M. (2008). Moving beyond Coltheart's *N*: A new measure of orthographic similarity. *Psychonomic Bulletin & Review, 15*(5), 971-979.

Nominal compound acquisition in 10 languages: Psycholinguistic evidence from lexical typology

Wolfgang U. Dressler, Marianne Kilani-Schoch, Nihan Ketrez, Reili Argus, Hans Basbøll, Ineta Dabasinskiene, Johanna Johansen Ijäs, Laura Kamandulyte-Merfeldiene, Victoria Kazakovskaya, Laila Kjærbæk, Katharina Korecky-Kröll, Klaus Laalo, Sabine Sommer-Lolei, Evangelia Thomadaki, & Ursula Stephany

We compare typologically (cf. [1]) emergence and early development of nominal compounding in longitudinal spontaneous speech corpora of 10 languages (up to age 3;0). We argue that wealth and productivity of compounding, as reflected in child-directed speech (CDS), morphological decomposition, pattern selection, productivity (specifically profitability) [2] of compounds in child speech (CS) of specific languages are better typological predictors of early emergence than general morphological typology, which characterises, to varying degrees, the investigated languages Turkish, Finnish, Saami as agglutinating, Estonian as agglutinating and inflecting, Lithuanian, Russian and Greek as richly inflecting, German, Danish and French as weakly inflecting. Statistical analysis of interaction effects in a Linear Effects Model confirms that compound richness in CDS of the languages investigated is the best predictor (cf. [4]).

For this purpose we apply to first-language acquisition studies the theory and methodology of Lexical Typology [3] in quantifying the percentage of nominal compounds among nouns and studying onomasiologically their rivalry with multilexical words (phrases), derivations (particularly suffixations) and simplex words for each language and relating CS to CDS.

The percentage of compound noun tokens ranges from about 1% in Lithuanian, Russian and French CS and CDS to 17% in German, whereas the percentage of compound noun lemmas ranges from more than 2% in Russian and 3.8% in French to 38% in German. These frequencies neither correspond to the morphological type of e.g. French and German (both weakly inflecting) nor are they related to the general wealth and productivity of compounds in adult speech found in written genres and described in grammars. However, rather close frequency relations exist between CS and CDS.

The main result of our study is the importance of morphological richness in CDS (see above). Moreover, morphosemantic and morphotactic transparency is greater in CS than in adult speech and, as expected, complexity of compounds rises in the development of CS. Productivity and frequencies of lemmas, types and tokens must be differentiated. Evidence from CS should include relations to CDS and rely less on formal tests, since the latter require a high level of language awareness and have less ecological validity. Moreover, they just provide flashlights into specific developmental phases which usually differ among the participants in tests and are limited to single morphological patterns, whereas our study shows that first compound patterns emerge simultaneously or quasi-simultaneously with first inflection and derivation patterns. Finally it will be discussed whether and to which degree findings of test results from single languages are supported or not by our typological comparison of longitudinal studies. Examples are inversion of compound constituents [5], postulated non-occurrence of "regular" inflection of left-hand constituents [6], status of interfixes (linking elements).

References

[1] Berman, R.A. 2009. Children's acquisition of compounds. In The Handbook of Compounding, R. Lieber & P. Štekauer (eds), 298–322. Oxford: Oxford University Press.

[2] Bauer, L. 2001. Morphological Productivity. Cambridge: Cambridge University Press.

[3] Koptjevskaja-Tamm, M. 2012. New directions in lexical typology. Linguistics 50: 373–394.

[4] Xanthos, Aris, Sabine Laaha, Steven Gillis, Ursula Stephany, Ayhan Aksu-Koç, Anastasia Christofidou, Natalia Gagarina, Gordana Hrzica, F. Nihan Ketrez, Marianne Kilani-Schoch, Katharina Korecky-Kröll, Melita Kovačević, Klaus Laalo, Marijan Palmović, Barbara Pfeiler, Maria D. Voeikova & Wolfgang U. Dressler 2011. On the role of morphological richness in the early development of noun and verb inflection. First Language 31, 461-479.

[5] Nicoladis, E. 2006. Pre-school Children's Acquisition of Compounds. In The Representation and Processing of Compound Words, G. Libben & G. Jarema (eds), 96– 125. Oxford: Oxford University Press.

[6] Clahsen, H., G. Marcus, S. Bartke & R. Wiese. 1996. Compounding and inflection in German child language. Yearbook of Morphology 1995, 115–142

Causal and concessive relations: Typology meets cognition

Alice Blumenthal-Dramé & Bernd Kortmann
(University of Freiburg, Germany)

This talk deals with the cognitive foundations of well-established cross-linguistic asymmetries between causal and concessive relations. It is organized into two major parts. Part one provides an overview of typologically recurrent asymmetries that have long been attributed to the iconicity of complexity. In particular, while there is a general tendency for concessive relations to be marked overtly, causal relations are more often left implicit. Likewise, compared to causal connectives, concessive connectives tend to be morphologically more complex, to be acquired later in ontogeny,

and to emerge later in diachrony. Finally, unlike causal relations, concessive relations do not give rise to online interpretative augmentation or to diachronic semantic change (König & Siemund, 2000; Kortmann 1997).

Part 2 is devoted to experimentally testing the claim that these asymmetries reflect differences in cognitive complexity. More specifically, we present the results of two reading experiments comparing the processing of causal and concessive interclausal relations in native speakers of English. Experiment 1 (122 participants) is a self-paced reading study focusing on reading times, whereas experiment 2 (54 participants) is a rapid serial visual presentation study tracking two ERP components (N400 and P600) that have been related to the processing of interclausal relations (cf. Xiang & Kuperberg, 2015; Xu, Jiang, Zhou, 2015).

Both experiments track reactions to the final parts of compound sentences (e.g., *ate a whole pizza for lunch*, while manipulating their first parts along two crossed dimensions: (1.) type of interclausal relation (causal vs. concessive); (2.) explicitness of interclausal relation (connective present or absent), as shown in the following examples:

a) *John was hungry and* <u>*ate a whole pizza for lunch*</u>.
b) *John was hungry and* **therefore** <u>*ate a whole pizza for lunch*</u>.
c) *John was nauseous and* **still** <u>*ate a whole pizza for lunch*</u>.
d) *John was nauseous and* <u>*ate a whole pizza for lunch*</u>.

Our provisional results support the following hypotheses derived from the typological and psycholinguistic literature:

1) Implicit concessivity is more disruptive to discourse processing than implicit causality.
2) Concessive connectives provide a larger cognitive benefit than causal ones (Xu, Jiang, Zhou, 2015).
3) Both types of connectives constrain online reading in an incremental manner (i.e., their cognitive effects become apparent well before the end of the second clause of a compound sentence, cf. Traxler, Bybee, Pickering, 1997).

Overall, this talk aims to make a step towards illuminating the relationship between typological generalizations and the cognition of individual language users.

References

König, E., & Siemund, P. (2000). Causal and concessive clauses: Formal and semantic relations. In E. Couper-Kuhlen & B. Kortmann (Eds.), Cause – condition – concession – contrast (pp. 341–360). Berlin: Mouton de Gruyter.

Kortmann, B. (1997). *Adverbial Subordination: A Typology and History of Adverbial Subordinators Based on European Languages*. Walter de Gruyter.

Traxler, M. J., Bybee, M. D., & Pickering, M. J. (1997). Influence of Connectives on Language Comprehension: Eye tracking Evidence for Incremental Interpretation. *The Quarterly Journal of Experimental Psychology Section A*, *50*(3), 481–497.

Xiang, M., & Kuperberg, G. (2015). Reversing expectations during discourse comprehension. *Language, Cognition and Neuroscience*, *30*(6), 648–672.

Xu, X., Jiang, X., & Zhou, X. (2015). When a causal assumption is not satisfied by reality: differential brain responses to concessive and causal relations during sentence comprehension. *Language, Cognition and Neuroscience*, *30*(6), 704–715.

The formulation of ergatives requires increased planning effort in Hindi: Eye tracking evidence for a "subject preference" in sentence production

Sebastian Sauppe, Kamal K. Choudhary, Shikha Bhattamishra, Mahima Gulati, Martin Meyer & Ina Bornkessel-Schlesewsky

(University of Zurich, Indian Institute of Technology Ropar; Indian Institute of Technology Ropar; Indian Institute of Technology Ropar; University of Zurich; & University of South Australia)

Typological distributions of linguistic features are influenced by many different factors. It has been proposed in the literature that one important factor is constraints deriving from general properties of the language processing system [1,2]. However, most of the proposals concerning morphology and syntax have focused on evidence from corpora [3] rather than from experimentation, which would provide more direct evidence [4]. An exception is cross-linguistic research on sentence comprehension which suggests a processing bias against ergative structures (often referred to as "subject preference"). This would explain why ergatives are disfavored in linguistic evolution [5]. However, as processing biases against ergatives have so far only been shown for sentence comprehension, it is an unresolved question how anti-ergative biases can affect language change. One possible scenario is that the preparation of ergative sentences requires different planning processes, ultimately leading speakers and listeners to disfavor these structures.

In this paper, we report novel experimental evidence for an anti-ergative bias in sentence production, extending previous research on processing constraints in comprehension in general and on ergative case marking in particular. In a picture description experiment [6], Hindi speakers described drawings of transitive, two-participant events while their eye movements and utterances were recorded. Hindi exhibits split ergativity: in perfective aspect, agent-like (A) arguments are ergative-marked and patient-like (P) arguments are nominative/accusative-marked (example 1), whereas in imperfective aspect, A arguments are nominative-marked and P arguments are nominative/accusative-marked (example 2). Participants were assigned to one of two groups: the first group was instructed to describe the pictures using sentences in perfective aspect with ergative marking for A arguments and the second group was instructed to describe the same pictures using sentences with imperfective aspect and nominative marking for A arguments.

(1) bandar-ne   kela   khāyā   hai
     monkey-ERG   banana eat:PFV   AUX
     "The monkey (agent) has eaten a banana (patient)."
(2) bandar-Ø   kela   khātā   hai
     monkey-NOM banana eat:IPFV   AUX
     "The monkey eats a banana."

The analysis of the distribution of early eye movements to agents and patients in the stimulus pictures during the description of transitive events shows that Hindi speakers allocated more visual attention towards agents when they were ergative case-marked, as compared to nominative-marked agents. This fixation pattern suggests that it might have required more planning time for speakers to prepare A arguments with ergative case marking than to prepare nominative A arguments during the processes of syntactic function assignment and linguistic encoding [7–8].

Thus, our results demonstrate that the production of ergative sentences imposes specific planning requirements which differ from sentences with unmarked A arguments. In combination with previous findings from sentence comprehension [5] this suggests that a bias against ergatives in language evolution might arise from a tendency to simplify processing for both speakers and listeners.

References

[1] Christiansen, M. H. and Chater, N. (2008). Language as shaped by the brain. *Behavioral and Brain Sciences*, 31(5):489–558.

[2] Hawkins, J. A. (2014). *Cross-Linguistic Variation and Efficiency*. Oxford University Press, Oxford.

[3] Bybee, J. (2006). From Usage to Grammar: The Mind's Response to Repetition. *Language*, 82(4):711–733.

[4] Sinnemäki, K. (2014). Cognitive processing, language typology, and variation. *Wiley Interdisciplinary Reviews: Cognitive Science*, 5(4):477–487.

[5] Bickel, B., Witzlack-Makarevich, A., Choudhary, K. K., Schlesewsky, M., and Bornkessel-Schlesewsky, I. (2015). The neurophysiology of language processing shapes the evolution of grammar: Evidence from case marking. *PLoS ONE*, 10(8):e0132819.

[6] Griffin, Z. M. and Bock, K. (2000). What the eyes say about speaking. *Psychological Science*, 11(4):274–279.

[7] Bock, K. and Levelt, W. J. M. (1994). Language production: Grammatical encoding. In Gernsbacher, M. A., editor, *Handbook of psycholinguistics*, pages 945–984. Academic Press, San Diego, CA, 1st edition.

[8] Bock, K. and Ferreira, V. S. (2014). Syntactically speaking. In Goldrick, M., Ferreira, V. S., and Miozzo, M., editors, *The Oxford handbook of language production*, pages 21–46. Oxford University Press, Oxford.

WORKSHOP 13

Matter borrowing vs pattern borrowing in morphology

Francesco Gardani
with Rik van Gijn, Stefan Dedio, Florian Sommer, Manuel Widmer (all Zurich University), Florian Matter (Bern University)

When languages are in contact, the morphology of one language can influence the morphology of another. There are two fundamentally distinct ways in which this can occur. Speakers of a recipient language can borrow from a source language either morphological material, that is, actual morphemes, or morphological techniques, that is, structural patterns but no forms. These fundamental types, exemplified in (1) vs. (2), are frequently referred to as 'matter borrowing' as opposed to 'pattern borrowing' (Sakel 2007; Matras & Sakel 2007).

(1)   matter-borrowing
                Turkish   Persian
        a.   *yengeç-vari*   b.   *pishrow-var*
                'crab-like'   'leader-like'

(2)   pattern-borrowing
                Basque   Spanish
        a.   *aztertu*   b.   *examinar*
                'examine'
                berr-aztertu   *re-examinar*
                're-examine'

In Turkish, the adjectivizer *-vari*, borrowed from Persian (1b), can occur on Turkish native bases, such as *yengeç* 'crab' (1a) (Gardani forthc.). In Basque (2a), the native morpheme *bir-* (or its allomorph *berr-*), meaning 'repetition' or 'emphasis', replicates a Romance pattern to form deverbal verbs through the prefix *re-* (2b) (Jendraschek 2006: 158–159).

These two phenomena, however, are not necessarily mutually exclusive. A third type of contact-induced morphological change is attested, in which matter borrowing and pattern borrowing are combined (Gardani forthc.). Modern Persian is a case in point. Here, some nouns with native Indo-European etyma, realize their plural forms just as Arabic, the long-standing contact language, does. For example, *farmān* 'order' (3a) (< Old Persian *fra-* 'forward' + *mā-* 'measure') yields a plural *farāmīn*, not only replicating a Semitic non-concatenative morphological technique, CVCV:CV:C, but also resorting to the same set of vowels, CaCa:Ci:C, which occurs, e.g., in Arabic *ṣanādīq* 'boxes' (3b) (data from Jensen 1931: 45; see also Mumm 2007: 41).

(3)   Modern Persian
        a.   *farmān* 'order' b.   *ṣandūq* 'box'
                farāmīn 'orders'   *ṣanādīq* 'boxes'

In all of these cases, the morphological design of a recipient language has become closer to that of its source language in terms of either form identity or similarity (i.e., matter-borrowing), or structural re-arrangement and convergence (i.e., pattern-borrowing), or a combination of both.

As is generally acknowledged, morphology is relatively resistant to borrowing (Gardani et al. 2015a). This fact makes the study of morphological borrowing a valuable heuristic tool in investigations of the genealogical relatedness of languages or language groups (good examples are Law 2013, 2014; Robbeets 2015). While, however, the topic of morphological matter borrowing has recently received slightly more attention in contact linguistics (Gardani 2008, 2012; Gardani et al. 2015b; Seifart 2013, 2015), the phenomenon of morphological pattern borrowing and in particular, its cross-linguistic diffusion and areal dimensions, are still largely understudied. The workshop *matter borrowing vs pattern borrowing in morphology* endeavors to fill this gap and aims to provide a cross-linguistic survey of matter borrowing and pattern borrowing, in order to seize their global extension and incidence in the evolution of morphology. We are especially interested in the following questions (but potential contributors should not feel restricted by them):

1. Which areas of morphology are more frequently affected by which type of borrowing?
2. What are the conditions that promote or inhibit the spread of which type of morphological borrowing?
3. Are the processes that underlie pattern borrowing the same that underlie contact-induced grammaticalization (Heine & Kuteva 2003)?
4. To what extent are abstract paradigmatic structures, such as morphomes (Maiden 2005), borrowed?
5. How can the study of pattern borrowing relate to phylogenetic patterns and contribute to the study of areal patterns in morphology?

References

Gardani, Francesco. 2008. *Borrowing of inflectional morphemes in language contact*. Frankfurt am Main: Peter Lang.

Gardani, Francesco. 2012. Plural across inflection and derivation, fusion and agglutination. In Lars Johanson & Martine I. Robbeets (eds.), *Copies versus cognates in bound morphology*, 71–97. Leiden & Boston: Brill.

Gardani, Francesco. forthc. Morphology and contact-induced language change. In Anthony Grant (ed.), *The Oxford handbook of language contact*. Oxford: Oxford University Press.

Gardani, Francesco, Peter Arkadiev & Nino Amiridze. 2015a. Borrowed mophology: An overview. In Francesco Gardani, Peter Arkadiev & Nino Amiridze (eds.), *Borrowed morphology* (Language Contact and Bilingualism 8), 1–23. Berlin, Boston & Munich: De Gruyter Mouton.

Gardani, Francesco, Peter Arkadiev & Nino Amiridze (eds.). 2015b. *Borrowed morphology* (Language Contact and Bilingualism 8). Berlin, Boston & Munich: De Gruyter Mouton.

Heine, Bernd & Tania Kuteva. 2003. On contact-induced grammaticalization. *Studies in Language* 27(3). 529–572.

Jendraschek, Gerd. 2006. Basque in contact with Romance languages. In Alexandra Y. Aikhenvald & Robert M. W. Dixon (eds.), *Grammars in contact*: *A cross-linguistic typology*, 143–162. Oxford: Oxford University Press.

Jensen, Hans. 1931. *Neupersische Grammatik*: *Mit Berücksichtigung der historischen Entwicklung*. Heidelberg: Winter.

Law, Danny. 2013. Inherited similarity and contact-induced change in Mayan Languages. *Journal of Language Contact* 6(2). 271–299.

Law, Danny. 2014. *Language contact, inherited similarity and social difference: The story of linguistic interaction in the Maya lowlands*. Amsterdam & Philadelphia: John Benjamins.

Maiden, Martin. 2005. Morphological autonomy and diachrony. In Geert Booij & Jaap van Marle (eds.), *Yearbook of morphology 2004*, 137–175. Dordrecht: Springer.

Matras, Yaron & Jeanette Sakel. 2007. Introduction. In Yaron Matras & Jeanette Sakel (eds.), *Grammatical borrowing in cross-linguistic perspective*, 1–13. Berlin & New York: Mouton de Gruyter.

Mumm, Peter-Arnold. 2007. *Strukturkurs Neupersisch*. Universität München.

Robbeets, Martine. 2012. Shared verb morphology in the Transeurasian languages: Copy or cognate? In Lars Johanson & Martine I. Robbeets (eds.), *Copies versus cognates in bound morphology*, 427–446. Leiden & Boston: Brill.

Robbeets, Martine. 2015. *Diachrony of verb morphology*: *Japanese and the Transeurasian Languages* (Trends in Linguistics. Studies and Monographs 291). Berlin & Boston: De Gruyter Mouton.

Sakel, Jeanette. 2007. Types of loan: Matter and pattern. In Yaron Matras & Jeanette Sakel (eds.), *Grammatical borrowing in cross-linguistic perspective*, 15–29. Berlin & New York: Mouton de Gruyter.

Seifart, Frank. 2013. *AfBo: A world-wide survey of affix borrowing*. Leipzig: Max Planck Institute for Evolutionary Anthropology. Available online at http://afbo.info.

Seifart, Frank. 2015. Direct and indirect affix borrowing. *Language* 91(3). 511–532.

Morphological pattern replication in bilingual children

Jeanette Sakel

(UWE Bristol)

In the decade since the introduction of the distinction between *matter* and *pattern* loans (Matras and Sakel 2004, Sakel 2007, Matras and Sakel 2007a, b) these terms have been applied to contact situations beyond the original focus on grammatical borrowing, which has given further insights into the mechanisms that lead to either type of interference.

In the study of heritage languages, pattern replication overlaps with incomplete acquisition and contact phenomena in the language input. We can compare and contrast heritage language data with acquisition data of monolingual children, yet, such a contrastive analysis will not be able to capture all instances of interference. In some cases, mutual reinforcement plays a role, for example where a typical acquisition trajectory is influenced by the patterns in a dominant language. For these cases I argue for a 'scale of pattern replication', from clearly borrowed to mutually reinforced phenomena.

Looking at the German language production of children (age 5-9) who are fluent, yet English-dominant bilinguals, I investigate instances on the scale of pattern replication from English in the German morphology.

Often there is a reduction of complex morphological forms in analogy with unmarked forms or distinctions in English, such as case, gender and number marking (using accusative rather than dative case forms), merging verbal action and event marking, and simplification in the structure of compounds. In some cases pattern replication is supported by sound similarities, such as *mein* 'my.M/N.NOM' (German) and *mine* (English).

I discuss what leads to instances of pattern replication in terms of a 'pivot' between the languages (Matras and Sakel 2007b), as well as reinforcement through sound similarities and processes during language acquisition. I provide an outlook to how these findings can be applied to studies of second language acquisition and language attrition.

References

Matras, Yaron and Jeanette Sakel (2004) *Database of grammatical borrowing*. University of Manchester.

Matras, Yaron and Jeanette Sakel (2007a) (eds.) *Grammatical borrowing in cross-linguistic perspective*. Berlin: Mouton de Gruyter.

Matras, Yaron and Jeanette Sakel (2007b) 'Investigating the mechanisms of pattern replication in language convergence' in *Studies in Language* 31(4): 829-865.

Sakel, Jeanette (2007) 'Types of loan: matter and pattern' in Yaron Matras & Jeanette Sakel (eds.): p. 15-29

Which MATter matters in PATtern borrowing?

Felicity Meakins, Jane Simpson, Samantha Disbray & Amanda Hamilton

The borrowing of case, either MATter or PATtern (cf. Sakel 2007), has been observed only rarely in cross-linguistic studies of language contact, compared with the borrowing of other lexical and morphological material. Very few instances of the transfer of case forms, i.e. MAT borrowing, have been given in the literature, with the notable exception of a number of Australian studies (Disbray 2006; Heath 1976; Meakins 2011; O'Shannessy 2011) and an American study (Mithun 2005). More instances of pattern borrowings exist, where a shift in case alignment has occurred as a result of convergence with a case system from a different language (Aikhenvald and Dixon 2007, 2001; Matras and Sakel 2007 *inter alia*).

In the examples of case re-alignment, i.e. pattern transfer, it is more common to see peripheral case markers, such as locatives, instrumentals, comitatives and genitives realign under the influence of another language (without a change to the native forms) (Boas 2009; Heine & Kuteva 2005: 149-150; Gómez Rendón 2007; Tenser 2008; Grenoble 2000; Gumperz and Wilson 1971; Tadmor 2007; Smith, Paauw and Hussainmiya 2004). It is rarer to find examples of PATtern borrowing of core case (Dench 2001; Kutscher 2001; Öztürk 2008; Garrett 1990; Watkins 2001). This generalisation is not unlike Gardani's (2008) observation about the higher propensity of borrowing inherent inflections compared with contextual inflection.

In some cases, it is difficult to determine whether realignment is the result of language internal change or external influence. For example, the commonly observed syncretism between accusative and dative case in German determiners in many US varieties, which has resulted in a two-way case system, has variously been attributed to contact with English or an internal development (e.g. Boas 2009). Even where contact is provides a convincing story, most studies do not address the question of why a particular case form is chosen to spread into another functional domain over another case form. For example, why has the accusative case form generalized instead of the dative case form in some US varieties of German.

This study addresses the question of which MATter to privilege in PATtern borrowing by examining a number of mixed varieties in northern Australia which have maintained either a locative or allative case form. In some cases, the allative form has been lost and the locative form has generalized to goals, as well as topological relations (Gurindji Kriol). In other situations (e.g. Wumpurrarni English) the opposite situation has occurred. In both cases, the development of a single marker of spatial relations has most likely occurred as the result of contact with Kriol which has one

preposition *(la)nga* which marks both topological relations and goals. The question of why the locative has been extended in one situation, and the allative in another is addressed in this paper.

References:

Aikhenvald, Alexandra Y. and Robert M.W. Dixon (eds.). 2001. *Areal diffusion and genetic inheritance: Problems in comparative linguistics*. Oxford: Oxford University Press.

Aikhenvald, Alexandra Y. and Robert M.W. Dixon (eds.). 2007. *Grammars in contact: A cross-linguistic typology*. Oxford: Oxford University Press.

Boas, Hans. 2009. Case loss in Texas German. In Jóhanna Barðdal & Shobhana L. Chelliah (eds.), *The Role of semantic, pragmatic and discourse factors in the development of case*, 347-373. Amsterdam, Philadelphia: John Benjamins.

Dench, Alan. 2001. Descent and diffusion: The complexity of the Pilbara situation. In Alexandra Y. Aikhenvald & Robert M.W. Dixon (eds.), *Areal diffusion and genetic inheritance: Problems in comparative linguistics*, 122-150. Oxford: Oxford University Press.

Disbray, Samantha. 2006. Pudum na teibul kana: A preliminary study of the expression of location in Wumpurrarni English. Paper presented at the Pearl Beach 2006, Sydney.

Gardani, Francesco. 2008. *Borrowing of inflectional morphemes in language contact*. Frankfurt: Peter Lang.

Garrett, Andrew. 1990. The origin of NP split ergativity. *Language* 66(2). 261-296.

Gómez Rendón, Jorge. 2007. Grammatical borrowing in Imbabura Quichua. In Yaron Matras & Jeannette Sakel (eds.), *Grammatical borrowing in cross-linguistic perspective*, 491-521. Berlin, New York: Mouton de Gruyter.

Grenoble, Lenore. 2000. Morphosyntactic change: The impact of Russian on Evenski. In Dicky Gilbers, John Nerbonne & Jos Schaeken (eds.), *Languages in contact*, 105-120. Amsterdam: Rodopi.

Gumperz, John and Robert Wilson. 1971. Convergence and creolization. In Dell Hymes (ed.), *Pidginization and creolization of languages*, 151-168. Cambridge: Cambridge University Press.

Haig, Geoffrey. 2001. Linguistic diffusion in present-day Anatolia: From top to bottom. In Alexandra Y. Aikhenvald & Robert M.W. Dixon (eds.), *Areal diffusion and genetic inheritance: Problems in comparative linguistics*. 195-224. Oxford: Oxford University Press.

Heath, Jeffrey. 1978. *Linguistic diffusion in Arnhem Land*. Canberra: AIAS.

Heine, Berndt and Tania Kuteva. 2005. *Language contact and grammatical change*. Cambridge: Cambridge University Press.

Matras, Y., & Sakel, J. (Eds.). (2007). *Grammatical borrowing in cross-linguistic perspective*. Berlin: Mouton de Gruyter.

Meakins, Felicity. 2011. Borrowing contextual inflection: Evidence from northern Australia. *Morphology* 21(1). 57-87.

Mithun, Marianne. 2005. Ergativity and language contact on the Oregon Coast: Alsea, Siuslaw, and Coos. *Proceedings of the 25th Annual Meeting of the Berkeley Linguistics Society*, 77-95. Berkeley: University of California.

Öztürk, Balkiz. 2008. The loss of case system in Ardesheni Laz and its morphosyntactic consequences. Paper presented at the 13th International Morphology Meeting, Vienna.

Sakel, J. (2007). Types of loans: Matter and pattern. In Y. Matras & J. Sakel (Eds.), *Grammatical borrowing in cross-linguistic perspective* (pp. 15-29). Berlin: Mouton.

Smith, Ian, Scott Paauw and Bachamiya Abul Hussainmiya. 2004. Sri Lankan Malay: The state of the art. In Rajendra Singh (ed.), *Yearbook of South Asian Languages 2004*, 197-215. Berlin, New York: Mouton de Gruyter.

Tadmor, Uri. 2007. Grammatical borrowing in Indonesian. In Yaron Matras & Jeannette Sakel (eds.), *Grammatical borrowing in cross-linguistic perspective*, 311-338. Berlin,. New York: Mouton de Gruyter.

Tenser, Anton. 2008. *The Northeastern dialects of Romani.* Manchester: University of Manchester Dissertation.

Matter vs. pattern borrowing in compounding: Evidence from the Greek dialectal variety

Angela Ralli

(University of Patras)

In contact morphology, derivation and inflection have received the bulk of attention, while little has been said about the transfer of compounds and compound structures (see, among others, Gardani et al. 2015). However, compounding constitutes a particularly interesting case since it may involve both matter- and, in a way, pattern-replication (Sakel 2007), depending on the language. This paper deals with loan compound formations in a number of Modern Greek varieties, which have a rich, morphologically-built, compounding system (Ralli 2013), and have been in contact with typologically and genetically different languages. It investigates loan items in the dialect of Lesbos (Ralli 2016), Italiot (Rohlfs 1933), and three Asia Minor varieties, Pontic (Oekonomidis 1958), Pharasiot (Dawkins 1916) and Aivaliot (Sakkaris 1940), affected by Turkish and/or Italo-romance, depending on the case. All dialects show a wealth of formations mixing native and foreign constituents on the basis of Greek compound structures. However, when Turkish or Romance compounds as such enter the recipient language, i.e. a Greek variety, they are recategorized as stems, with the necessary morpho-phonological changes in order to receive Greek inflection, and they may also undergo a structural analysis so as to get the compulsory word-internal marker -o-, typical of Greek native compounds. Interestingly, there are also cases, especially in dialects that have undergone a heavy socio-cultural contact with the donor (e.g. Pharasiot), where certain compound formations display patterns which seem to belong to the donor. Nevertheless, as shown by Bagriacik et al. (forthcoming), even in those cases, a foreign compound structure is selectively copied by the recipient. Assuming that morphological congruence is a prerequisite for the borrowing of morphological structure (Myers-Scotton 2002), it will be proposed that Greek compounding resists change, since the native compound morphology strongly constrains the adoption of a compound structure which is built in syntax.

References

Bağrıaçık, M., Göksel, A. & A. Ralli Forthcoming. Copying Compound Structures: The case of Pharasiot Greek. In J. Kornfilt & C. Trips (eds).

Dawkins, R. 1916. *Modern Greek in Asia Minor*. Cambridge: Cambridge University Press.

Gardani, F., Arkadiev, P & N. Amiridze (eds.) 2015. *Borrowed morphology*. Berlin: de Gruyter.

Myers-Scotton, C. 2002. *Contact linguistics*. Oxford: Oxford University Press.

Oekonomidis, D. 1958. *Grammar of the Greek dialect of Pontus*. Athens: Academy of Athens.

Ralli, A. 2013. *Compounding in Modern Greek*. Dordrecht: Springer.

Ralli, A. 2016. *A dictionary of the dialectal varieties of Kydonies, Moschonisia and North-eastern Lesbos*. Athens: Foundation of Historical Research.

Rohlfs, G. 1933. *Scavi linguistici nella Magna Grecia*. Roma: Collezione Meridionale Editrice.

Sakel, J. 2007. Types of loan: matter and pattern. In Y. Matras & J. Sakel (eds.) *Grammatical Borrowing in Cross-linguistic perspective*. Berlin: De Gruyter.

Sakkaris, G. 1940. *The Kydonies dialect in comparison with the Lesbian dialect*. Asia Minor Chronicles 3. Athens: Centre of Asia Minor Studies.

When is templatic morphology borrowed?

Lameen Souag
(LACITO - CNRS)

Semitic languages make extensive morphological use of root-and-pattern morphology, in the form of fixed-length templates that fix vowel qualities in the output while completely ignoring the vowels of the input. This phenomenon is quite unusual on a worldwide scale (Arcodia, 2013), and crosscuts the divide between matter and pattern borrowing (Gardani et al., 2015). The expansion of Arabic over the past 1500 years has created ideal conditions for the borrowing of root-and-pattern morphemes into the languages of massively bilingual minority groups in the Arab world. Like morphological borrowing in general, such borrowings are normally mediated by lexical borrowing (Moravcsik, 1978). Prominent among the morphemes borrowed in such circumstances is the comparative/superlative template $ʔaC_1C_2aC_3$, conventionally termed the elative. This template has become fully productive in languages including Siwi Berber (Souag, 2009), Western Neo-Aramaic (Spitaler, 1938), and Omani Mehri (Watson, 2012), and suppletively productive in Domari (Matras, 2012); it has made more limited incursions on the structure of a number of other varieties. A nearly exhaustive examination of massively bilingual minority groups in the Arab world suggests that the outcome is determined not only by sociolinguistic factors but also by structural ones: only languages with pre-existing triliteral root-and-pattern morphology borrow this template in a fully productive fashion, while other languages, if they borrow it at all, are forced to resort to suppletion and/or to leave it unproductive. This observation can be explained by the interplay between root-and-pattern morphology and the lexicon. The Arabic elative template strongly constrains the input, typically accepting only triliteral inputs; to be productive, it needs a lot of adjectives to have identifiable triliteral roots. That is much easier when, as in Arabic, adjectives are themselves typically formed using triliteral templates. To the extent that root-and-pattern morphology both requires and imposes constraints on word form, this result appears likely to be generalizable: root-and-pattern morphology is much more easily borrowed between languages whose lexica have already been shaped by it.

References

Arcodia, G.F., 2013. Nonconcatenative morphology in typological perspective, in: Arcodia, G.F., Da Milano, F., Iannàccaro, G., Zubena, P. (eds.), *Tilelli. Studi in onore di Vermondo Brugnatelli*. Caissa Italia, Roma, pp. 1–14.

Gardani, F., P. Arkadiev & N. Amiridze. 2015. Borrowed morphology. An overview. In F. Gardani, P. Arkadiev & N. Amiridze (eds), *Borrowed morphology*, 1–23. Berlin, Boston & Munich: De Gruyter Mouton.

Matras, Y., 2012. *A grammar of Domari*. De Gruyter, Berlin.

Moravcsik, E.A., 1978. Language Contact, in: Greenberg, J.H., Ferguson, C.A., Moravcsik, E.A. (Eds.), *Universals of Human Language*. Stanford University Press, Stanford, Calif, p. 4.

Souag, L., 2009. Siwa and its significance for Arabic dialectology. *Zeitschrift für Arabische Linguistik*. 51, 51–75.

Spitaler, A., 1938. *Grammatik des neuaramäischen Dialekts von Maʼlūla (Antilibanon), Abhandlungen für die Kunde des Morgenlandes*. F. A. Brockhaus, Leipzig.

Watson, J.C.E., 2012. *The structure of Mehri*. Harrassowitz, Wiesbaden.

Pattern borrowing, linguistic similarity, and new categories

Danny Law

(University of Texas at Austin)

Linguistic similarity plays a significant role in facilitating borrowing in language contact. The relationship between that initial similarity and the linguistic outcomes of contact begs closer investigation. Many Mayan languages display evidence of intensive language contact, including large levels of various types of matter and pattern borrowing (Law 2014). Here, I focus on pattern borrowing among related Mayan languages with respect to two grammatical domains: person and numeral and noun classification. The system of person marking in Lowland Mayan languages has been heavily shaped by contact. In some languages, virtually the entire paradigms of ergative and absolutive person markers were borrowed from a related language (Law 2009). The effects of contact on person marking can also be seen in the morphosyntactic position and grammatical contrasts expressed through person markers in multiple Mayan languages. For example, several languages replaced suppletive plural person markers with person markers that are unmarked for number, and developed plural enclitics to mark plural person. They areally shared a novel inclusive/exclusive/dual contrast in the first person plural, and associated specific sets of person markers with aspect. In numeral and nominal classification, we can see the emergence, through contact, of a complex system of numeral classifiers, with inventories numbering, in some cases, in the hundreds (Berlin 1968, Arcos López 2009). And several highland Mayan languages have also developed systems of noun classification because of contact. Both of these cases involved the borrowing of a previously non-existent grammatical category.

The study of pattern borrowing in Mayan languages highlights the important role of systemic structural overlap in facilitating pattern borrowing. As a case study of different pathways to structural convergence, it also highlights the diverse ways in which linguistic patterns can converge, and reveals the often highly complex structural ramifications of pattern borrowing.

References

Arcos López, Nicolás. 2009. Los clasificadores numerals y las clases nominales en Ch'ol. MA Thesis, CIESAS.

Berlin, Brent. 1968. *Tzeltal numeral classifiers: A study in ethnographic semantics*. The Hague: Mouton.

Law, Danny. 2009. Pronoun borrowing among the Maya. *Diachronica* 26(2): 214-252.

Law, Danny. 2014. *Language contact, inherited similarity and social difference: The story of linguistic interaction in the Maya lowlands*. Amsterdam: John Benjamins.

Zamucoan and the others: Matter borrowing vs. pattern borrowing in the Chaco area

Luca Ciucci

(James Cook University, Cairns)

The Chaco lowland in South-America constitutes a cultural and possibly linguistic area (Comrie *et al.* 2010, González 2015), with languages belonging to the following families: Chiquitano, Enlhet-Enenlhet, Guaycuruan, Lule-Vilela, Mataguayan, Tupí-Guaraní and Zamucoan. This talk will discuss some cases of matter and pattern borrowing found in Zamucoan, and their implications for the study of the Chaco sociolinguistic situation and the theory of language contact. Zamucoan consists of two living languages, Ayoreo and Chamacoco, plus †Old Zamuco, all stemming from a common ancestor (Ciucci 2016).

At the centre of the supposed Chaco area are Guaycuruan and Mataguayan (Comrie *et al.* 2010), which share remarkable morphological similarities, but this does not conclusively demonstrate that the Chaco is a linguistic area, because these two families might have a common genetic origin (Viegas Barros 2013). More revealing is the fact that Zamucoan, although genetically isolated, shows morphological and syntactic similarities with Guaycuruan/Mataguayan (Bertinetto & Ciucci 2012; Ciucci 2014). In this talk I will discuss morphological borrowing found in Zamucoan morphology, most prominently in possessive and verb inflection (Ciucci 2014), pointing out the cases of matter borrowing and pattern borrowing. Interestingly, only a tiny percentage of shared lexicon between Zamucoan and Guaycuruan/Mataguayan has been identified, possibly owing to widespread linguistic purism, as documented in other areas of South America (Aikhenvald 2002, 2012; Seifart 2011; Epps, to appear).

Diachronic studies on Zamucoan morphology (Ciucci & Bertinetto 2015, to appear) indicate that one has to distinguish at least two stages of contact:

(i) Most borrowings have taken place at the Proto-Zamucoan stage, so that this long temporal distance does not permit to identify the direction of the transfer, unless this has left visible consequences in the system: for instance a matter borrowing from Guaycuruan/Mataguayan has supposedly produced a split into reflexive vs. non-reflexive 3-person in Zamucoan possessive inflection (Ciucci 2014).

(ii) Other examples of borrowing only involve Chamacoco, the most innovative language of the family. Chamacoco verb inflection, for instance, has clusivity, which is a pattern borrowing from surrounding languages, possibly Tupí-Guaraní (Ciucci & Bertinetto 2015).

Finally, I will discuss the role played by contact in the origin of typological rarities characterizing Zamucoan and other Chaco languages (Bertinetto & Ciucci 2015). For instance, Chamacoco clusivity (point (ii) above) has further interacted with a plural suffix common to all Chaco languages (a case of matter borrowing identified by Comrie *et al.* 2010), thus originating a greater plural in the 1-person inclusive. In some cases, a Zamucoan language has been the donor language: Chamacoco verbs have an unexpected affix order in the 3-person plural, such that the number marker precedes the person marker (cf. Trommer 2003; Mayer 2009; Bertinetto 2011); this feature spread to Kadiwéu (Guaycuruan), which borrowed the Chamacoco plural prefix *o-* (Ciucci 2014).

References

Aikhenvald, Alexandra Y. 2002. *Language Contact in Amazonia*. Oxford: Oxford University Press.

Aikhenvald, Alexandra Y. 2012. 'Invisible' loans: How to borrow a bound form. In: Lars Johanson & Martine Robbeets (eds.). *Copies versus Cognates in Bound Morphology*. Leiden / Boston: Brill. 167-186.

Bertinetto, Pier Marco 2011. How the Zamuco languages dealt with verb affixes. *Word Structure* 4,2: 215-230

Bertinetto, Pier Marco & Luca Ciucci 2012. Parataxis, Hypotaxis and Para-Hypotaxis in the Zamucoan Languages. *Linguistic Discovery* 10, 1. 89-111.

Bertinetto, Pier Marco & Luca Ciucci 2015. On rare typological features of the Zamucoan languages, in the framework of the Chaco linguistic area. *Quaderni del Laboratorio di Linguistica della Scuola Normale Superiore di Pisa*, 4 n.s.

Ciucci, Luca 2014. Tracce di contatto tra la famiglia zamuco (ayoreo, chamacoco) e altre lingue del Chaco: prime prospezioni. *Quaderni del Laboratorio di Linguistica della Scuola Normale Superiore di Pisa* 13 n.s.

Ciucci, Luca 2016 [2013]. *Inflectional morphology in the Zamucoan languages*. Asunción, Paraguay: CEADUC. Biblioteca Paraguaya de Antropología, Vol. 103.

Ciucci, Luca & Pier Marco Bertinetto 2015. A diachronic view of the Zamucoan verb inflection. *Folia Linguistica Historica* 36, 1. 19-87.

Ciucci, Luca & Pier Marco Bertinetto (to appear). Possessive inflection in Proto-Zamucoan: a reconstruction.

Comrie, Bernard, Lucía A. Golluscio, Hebe González & Alejandra Vidal 2010. El Chaco como área lingüística. In: Zarina Estrada Férnandez & Ramón Arzápalo Marín (eds.). *Estudios de lenguas amerindias 2: contribuciones al estudio de las lenguas originarias de América*. Hermosillo, Sonora (Mexico): Editorial Unison.

Epps, Patience (to appear). Amazonian linguistic diversity and its sociocultural correlates. In Mily Crevels, Jean-Marie Hombert & Pieter Muysken (eds.). *Language Dispersal, Diversification, and Contact: A Global Perspective*. Oxford: Oxford University Press.

González, Hebe Alicia 2015. El Chaco como área lingüística: una evaluación de los rasgos fonológicos. In: B. Comrie & L. Golluscio (eds.). *Language contact and documentation*. Berlin/Munich/Boston: Walter de Gruyter.

Mayer, Thomas (2009). On the asymmetry of person and number marking. (Paper presented at the Workshop on Asymmetries and Universals in Honour of Frans Plank, Schloss Freudental, May 24, 2009).

Seifart, Frank 2011. Bora loans in Resígaro: Massive morphological and little lexical borrowing in a moribund Arawakan language. *Cadernos de Etnolingüística. Série de Monografias* 2.

Trommer, Jochen 2003. The interaction of morphology and affix order. *Yearbook of Morphology*, 2002: 283-324.

Viegas Barros, Pedro 2013. La hipótesis de parentesco Guaicurú-Mataguayo: estado actual de la cuestión. *Revista Brasileira de Linguística Antropológica* 5 (2). 293-333.

Productivity as a cross-linguistic pattern: Italian derivation in Maltese

Benjamin Saade

(Universität Bremen)

Maltese, an Arabic language with a heavily mixed lexicon (Arabic/Italian/English), borrowed numerous morphological Italian formatives which are productive to different degrees. While the majority of formations with these formatives occur with Italian bases, borrowed derivational affixes can also attach to Arabic/Semitic bases (1) and English bases (2).

(1) Maltese   [MLRS, news57001]

u	*hawn*	*t-idher*	*ċar*	*l-imqarb-**ezza***	*tagħ-ha*
and	here	3sg.f-seem:ipfv	clear	def-naughty-**nmlz**	of-3sg.f

'And here her naughtiness seemed clear'

(2) Maltese   [MLRS, news91885]

permezz	*ta'*	*klikkja-**tura***	*bil-maws*	*fuq*	*il-kompjuter*
by_the_means	of	click-**nmlz**	with.def-mouse	on	def-computer

'With a mouse click on the computer'

The productivity of the Italian derivational formatives varies considerably in Maltese. In order to assess if the productivity patterns in Maltese resemble the respective patterns in Italian, this paper presents a corpus-based pilot investigation that compares quantitative productivity measures (Baayen 2009) cross-linguistically between borrowed derivational affixes in Maltese and their Italian cognates using the variable-corpus approach proposed by Gaeta and Ricca (2006). The data are drawn from a 250-million-token corpus of Maltese (MLRS corpus). This cross-linguistic approach to productivity can help uncover the relative stability of applicability patterns of borrowed morphological formatives and thus answer the question of "how much Pattern is borrowed along with the Matter?" Furthermore, a detailed study on neologisms with Italian morphology shows that the influence of the Romance part of the English lexicon plays an ever more important role in modern-day Maltese. Some formations such as *allegat* in (3) superficially look like Italian formations (Italian: *allegato* 'attached') but take their semantics from English near-cognates (alleged).

(3) Maltese   [MLRS, parl8686]

Fil-fatt	*hemm*	*żewġ*	*każi-jiet ta'*	*alleg-**at***	*ksur*	*ta'*	*liġi.*
in:def-fact	exist	two	case-pl of	allege-**adj**	break	of	law

'In fact, there are two cases of alleged breach of law.'

The study adds another dimension to the distinction of Matter vs Pattern borrowing (Sakel 2007) and offers a new perspective on productivity by taking language contact into account. Furthermore, it provides a quantitative method to evaluate productivity cross-linguistically.

MLRS = Maltese Language Resource Server (version3.0):
http://mlrs.research.um.edu.mt/CQPweb/malti03/

References

Baayen, R. Harald. 2009. Corpus linguistics in morphology: morphological productivity. In Anke Lüdeling & Merja Kytö (eds.), *Corpus linguistics. An international handbook*, 899–919. Berlin: De Gruyter Mouton.

Gaeta, Livio, and Davide Ricca. 2006. "Productivity in Italian Word Formation: A Variable-Corpus Approach." *Linguistics* 44 (1): 57–89.

Sakel, Jeanette. 2007. Types of loan: Matter and pattern. In Yaron Matras & Jeanette Sakel (eds.), *Grammatical Borrowing in Cross-Linguistic Perspective*, 15–29. (Empirical Approaches to Language Typology 38). Berlin: De Gruyter Mouton.

Beyond the Structural Domain: Distributed Multiplicity

Marianne Mithun

(University of California, Santa Barbara)

It is frequently observed that inflectional morphology is rarely borrowed. Morphology is usually ranked last on borrowing hierarchies, and within morphology, inflection is ranked after derivation (Thomason & Kaufman 1988, Heine & Kuteva 2003, Gardani 2008, 2012, 2014, Matras 2009, Seifart 2015, and others). But borrowability can be affected by factors beyond structure. Here the powerful effects of some such factors are shown in the transfer of apparent prototypical inflection: plural suffixes on nouns.

Northern California has long been recognized as a strong linguistic area. Communities have always been small and exogamy common, resulting in longstanding multilingualism. The focus here is on a set of languages surrounding the Clear Lake area north of San Francisco: those of the Pomoan family, Wappo (Yukian family), and Wintu (Wintuan family). Data are drawn from fieldnotes on Pomoan, Radin 1924, 1929 on Wappo, and Pitkin 1984, 1985 on Wintu. No genealogical relationship among the three families has ever been proposed. Evidence of borrowed vocabulary and borrowed morphological substance is rare. Notable exceptions are two plural suffixes, *-ṭ* and *-l*. They occur on nouns in some Pomoan languages, in Wappo but not its only relative Yuki, and in Wintu, but not its relative Patwin. The suffixes occur on native forms.

A closer look at the functions, distribution, and pathways of development of the forms is revealing. In none of the languages are they actually straightforward inflectional markers. Both have sources in Pomoan verb suffixes, the first a multiple event marker, the second a collective action marker. Neither is an 'agreement' marker: they are not required in clauses with plural subjects, and the first also occurs with singular subjects. In Central Pomo, the suffix *-ṭ* serves as a multiple event marker on verbs (*pʰdi:law* 's/he jumped down', *pʰdi:ṭa:lam* 'they jumped down'. It was extended to adjectives and nouns construed distributively. For some nouns referring to humans, it has become the regular plural form. In the neighboring Wappo, it pluralizes some aspect of an event or state on verbs (*mai'očái'i-te* 'they are lying coiled up', *temán-te* 'I brought them') and serves as a distributive on adjectives, and a plural on nouns, but only those referring to animates. In Wintu, it is the regular plural suffix on pronouns (*ni* 'I', *ni-te* 'we all'). The second suffix, *-l*, began as a durative suffix on Pomoan verbs (Eastern Pomo *ka-xá:* 'cut once', *ka:-lá-x* 'cut more than once'). In Eastern Pomo it was extended to a collective marker on animate nouns, and in Southeastern Pomo as a pluralizer on kinship nouns. In Wappo, *-l* appears on both verbs (*nakótki* 'a blossom came out', *nakóte-l-ki* 'blossoms came out'), and marginally in nouns. In Wintu it serves as a dual marker on pronouns (*ni* 'I', *ne-:l* 'we **two**'). Apart from these two markers, there are few obvious borrowed affixes, despite the long, intense contact. Sorting out the stage(s) of development at which the markers were transferred, and their subsequent extensions within the individual languages, presents an intriguing puzzle.

This seemingly unusual situation can be understood in light of social and cultural factors. Despite the widespread multilingualism, it was generally considered polite to speak the language of the community one was in. Speakers would thus control those aspects of language of which they were

conscious, the most obvious being vocabulary. This effort would account for the rarity of loanwords. But other, less conscious aspects of language were less controlled, resulting in profound 'pattern' effects of contact in the area. Such effects can be seen in parallels both in the packaging of concepts in vocabulary (verbs and nouns whose inherent meanings include number), and in special morphological distinctions not as frequent elsewhere.

References

Gardani, Francesco. 2008. *Borrowing of inflectional morphemes in language contact*. Frankfurt am Main: Peter Lang.

Gardani, Francesco. 2012. Plural across inflection and derivation, fusion and agglutination. In Lars Johanson & Martine I. Robbeets (eds.), *Copies versus cognates in bound morphology*, 71–97. Leiden & Boston: Brill.

Gardani, Francesco. forthcoming. Morphology and contact-induced language change. In Anthony Grant (ed.), *The Oxford handbook of language contact*. Oxford.

Gardani, Francesco, Peter Arkadiev & Nino Amiridze. 2015a. Borrowed mophology: An overview. In Francesco Gardani, Peter Arkadiev & Nino Amiridze (eds.), *Borrowed morphology* (Language Contact and Bilingualism 8), 1–23. Berlin: De Gruyter Mouton.

Gardani, Francesco, Peter Arkadiev & Nino Amiridze (eds.). 2015b. *Borrowed morphology*. Berlin: De Gruyter Mouton.

Heine, Bernd & Tania Kuteva. 2003. On contact-induced grammaticalization. *Studies in Language* 27(3). 529–572.

Heine, Bernd & Tania Kuteva. 2005. *Language contact and grammatical change*. Cambridge.

Matras, Yaron. 2009. *Language contact*. Cambridge.

Matras, Yaron & Jeanette Sakel. 2007. Introduction. In Yaron Matras & Jeanette Sakel (eds.), *Grammatical borrowing in cross-linguistic perspective*, 1–13. Berlin: Mouton de Gruyter.

Pitkin, Harvey 1984. *Wintu grammar*. University of California Publications in Linguistics 94. Berkeley: University of California.

Pitkin, Harvey. 1985. *Wintu dictionary*. University of California Publications in Linguistics *95*.

Radin, Paul. 1924. Wappo texts: First series. *University of California Publications in American Archaeology and Ethnology* 19(1):1-147.

Radin, Paul. 1929. A grammar of the Wappo language. *University of California Publications in American Archaeology and Ethnology* 27: 1-194.

Seifart, Frank. 2015. Direct and indirect affix borrowing. *Language* 91(3). 511–532.

Thomason, Sarah and Terrence Kaufmann 1988. *Language contact, creolization, and genetic linguistics*. Berkeley: University of California.

A comparative approach to contact-induced morphological change in creole languages

Ana R. Luis

This talk examines the effect of morphological borrowing on the development of morphomic structure (Maiden 2005) by investigating the contact between Indo-Portuguese and Indo-Aryan. Based on a comparison between the verbal paradigms of three Indo-Portuguese creoles (i.e., Korlai Indo-

Portuguese, Daman Indo-Portuguese and Diu Indo-Portuguese), we investigate the causes underlying the two different outcomes that can be attested with respect to the development of the 4th conjugation. Drawing on the distinction between pattern and matter borrowing (Sakel 2007; Matras & Sakel 2007), the development of the fourth conjugation may be perceived as an instance of both pattern and matter borrowing, where the the abstract paradigmatic structure (i.e., the pattern) is borrowed from Portuguese, while the conjugation class marker -*u* (i.e., the matter) is borrowed from a third language (Clements&Luís 2015).

An intriguing property of this conjugation class, however, is the fact that it did not emerge in all three Indo-Portuguese varieties, even though these languages have very similar verbal paradigms. More precisely, the 4th conjugation class developed in Korlai Indo-Portuguese and Daman Indo-Portuguese, but not in Diu Indo-Portuguese. This outcome is surprising given that both Daman Indo-Portuguese and Diu Indo-Portuguese share the same substrate/adstrate language (i.e., Gujarati), whereas Korlai Indo-Portuguese has Marathi as its substrate/adstrate. The data then shows that Indo-Portuguese varieties with different Indo-Aryan adstrates resemble each other more than Indo-Portuguese varieties with the same adstrate.

Another question that emerges from the comparison of these three Indo-Portuguese creoles derives from the fact that Daman Indo-Portuguese, in analogy to Korlai Indo-Portuguese, also uses the vowel -*u* to mark the 4th conjugation. Assuming that the -*u* theme vowel in Korlai Indo-Portuguese was borrowed from Marathi (as claimed by Clements&Luís 2015), it is not entirely clear how to accommodate the fact that the 'same' vowel surfaces in Daman Indo-Portuguese as well.

The goal of our talk thus will be to shed light on the nature of the development of these contact-induced morphological patterns by i) exploring the factors that promoted/inhibited the spread of the 4th conjugation in Indo-Portuguese and ii) investigating why the -*u* theme vowel is present in both Korlai and Daman Indo-Portuguese.

References

Clements, Clancy & Ana R. Luís. 2015. Contact intensity and the borrowing of bound morphology in Korlai Indo-Portuguese. In Gardani, Francesco, Peter Arkadiev & Nino Amiridze (eds.). *Borrowed morphology* (Language Contact and Bilingualism 8), 219-240. Berlin, Boston & Munich: De Gruyter Mouton.

Maiden, Martin. 2005. Morphological autonomy and diachrony. In Geert Booij & Jaap van Marle (eds.), *Yearbook of morphology 2004*, 137–175. Dordrecht: Springer.

Matras, Yaron & Jeanette Sakel. 2007. Introduction. In Yaron Matras & Jeanette Sakel (eds.), *Grammatical borrowing in cross-linguistic perspective*, 1–13. Berlin & New York: Mouton de Gruyter.

Sakel, Jeanette. 2007. Types of loan: Matter and pattern. In Yaron Matras & Jeanette Sakel (eds.), *Grammatical borrowing in cross-linguistic perspective*, 15–29. Berlin & New York: Mouton de Gruyter.

How much pattern-borrowing does matter-borrowing presuppose? A study of Slavic verbal prefixes in contact[26]

Kirill Kozhanov & Peter Arkadiev

(Institute of Slavic Studies of the Russian Academy of Sciences & Institute of Slavic Studies of the Russian Academy of Sciences / Russian State University for the Humanities)

Slavic verbal prefixes have two main functions, namely to modify the verb's lexical meaning (e.g. Russian *pisat'* 'write' ~ ***perepisat'*** 'rewrite') and to perfectivize the verb (e.g. Russian *pisat'* 'write[ipf]' ~ ***napisat'*** 'write up[pf]'). These functions usually go together, i.e. lexical prefixes perfectivize verbs, and the perfectivization of verbs arguably always involves lexical modification. Thus, both the "specialized perfective" ***perepisat'*** and the "natural perfective" (terms from Janda 2007) ***napisat'*** 'write up' are similar in terms of aspect. Another notable feature of Slavic aspectual systems is the so-called secondary imperfectivization deriving imperfective verbs from prefixal perfectives, e.g. ***perepisyvat'*** 'rewrite[ipf]' The Slavic aspectual systems, though internally diverse (Dickey 2000, Fortuin & Kamphuis 2015), involve highly grammaticalized oppositions evident not only in the (rather abstract) semantics of aspect, but also in verbal morphosyntax, such as the ban on occurrence of perfective verbs with phasal predicates.

We address the question of what happens to the functions of Slavic verbal prefixes when they are borrowed into other languages, in particular, to what extent the borrowing of prefixes induces the borrowing of verbal aspect. We focus on two case studies: (i) Romani dialects in contact with East Slavic (cf. e.g. Rusakov 2001) and (ii) Istroromanian in contact with Croatian (Klepikova 1959, Hurren 1969).

The Romani data come from transcribed recordings of the two Romani dialects spoken in Russia — Russian Romani (around 55 000 wordforms; the main contact languages are Russian and historically Polish) and Servitika Romani (around 25 000 wordforms; the main contact languages are Ukrainian and Russian). Here Slavic verbal prefixes are mainly borrowed as lexical modifiers, cf. Servitika *ládel* 'drive' ~ ***uládel*** 'drive away', while their use as perfectivizers does not slavishly follow the model language, partly because of the lack of any (inherited or borrowed) means of secondary imperfectivization. Romani prefixed verbs are usually perfective in the simple past, cf. RusRom *bagand'óm* 'I sang [ipf and pf]' ~ ***do****bagand'óm* 'I finished singing [pf]', but allow both interpretations in the other tenses.

The Istroromanian case is unique in that this language has borrowed not only the Slavic perfectivizing prefixes (*parti* ~ ***res****parti* 'divide') but also the imperfectivizing suffix, which attaches to both prefixed (*zedurmit* 'they fell asleep' ~ *zedurm****iveaia*** 'they were falling asleep') and unprefixed (*a mnat* 's/he went' ~ *mna****veit-a*** 'they were going') verbs. However, the resulting system is all but a direct calque of the Slavic model, in particular since many simplex verbs of both Romance and Slavic origin have been reinterpreted as perfective from which imperfective counterparts are derived by suffixation. This shows that even when borrowed elements in the recipient language form a grammaticalized system, the properties of this system are the result of internal developments no less than of external influences.

The two case studies allow us to conclude that matter-borrowing of Slavic verbal prefixes does not imply full borrowing of their usage patterns, which suggests a need for a finer-grained taxonomy of contact-induced change.

References

Dickey, Stephen M. (2000). *Parameters of Slavic Aspect. A Cognitive Approach.* Stanford: CSLI Publications.

Fortuin Egbert & Jaap Kamphuis (2015). The typology of Slavic aspect: a review of the East-West theory of Slavic aspect. *Russian Linguistics* 39, 163–208.

Hurren, H. Anthony (1969). Verbal aspect and archi-aspect in Istro-Rumanian. *La linguistique* 5(2), 59–90.

Janda, Laura (2007). Aspectual clusters of Russian verbs. *Studies in Language* 31(3), 607–648.

Klepikova, Galina P. (1959). Funkcii slavjanskix glagol′nyx pristavok v istrorumynskom. In: S.B. Bernštejn (red.). *Voprosy slavjanskogo jazykoznanija*. Vyp. 4. Moscow: Izd-vo AN SSSR, 34–72.

Rusakov, Aleksandr Yu. (2001). The North Russian Romani dialect. Interference and code-switching. In: Ö. Dahl & M. Koptjevskaja-Tamm (eds.), *The Circum-Baltic Languages. Typology and Contact*. Amsterdam, Philadelphia: John Benjamins, Vol. 1, 313–337.

Matter and pattern borrowing: Between and beyond

Alexander Rusakov & Maria Morozova

(Institute for Linguistic Studies of the Russian Academy of Sciences, Saint Petersburg State University)

The Balkan languages and dialects are known to be rich in contact-induced phenomena including "pure" matter borrowing (mainly lexicons and derivational morphology) and "pure" pattern borrowing (most part of classical Balkanisms). The paper analyzes a sample of cases, in which matter and pattern types of borrowing in various Balkan languages are combined in different ways or cannot be unambiguously interpreted. The investigation is based on a number of contact situations with different sociolinguistic scenarios.

1. In many cases grammatical morphemes are borrowed into language A along with their structural patterns and functions in language B. Such process is typical for the contact-induced arising of new grammatical categories, e.g. the emergence of admirative in one of the Arumanian dialects under Albanian influence:

(1)　　　　　Arumanian Admirative　Albanian Admirative

　　　prs　　*lukrac**ka***　　　　　*punua**ka***

　　　pf　　*avus**ka** lukrată*　　　*pas**ka** punuar* (Friedman 1994: 85).

The construction of language B quite often is functionally similar to an already existing construction of language A, but their structural properties may differ. In this situation, the structural pattern of language B is replicated in language A, whereas the set of grammatical categories in language A demonstrates no serious change. See, for example, the borrowing of postpositive dative pronominal markers of possession from Bulgarian into the Albanian dialect of Mandritsa in Bulgaria (Sokolova 1983) and into the dialect of Albanians of Ukraine (Morozova 2016); the Albanian gerund marker *tue* in some Romani dialects (Boretzky & Igla 1991: 45). Peculiar details about some of these examples, relevant for further categorization of the matter and pattern borrowing cases, will be discussed in the paper.

2. In some contact situations, a grammatical morpheme of language A can be interpreted *etymologically* either as a result of the inner development under the structural influence of a phonetically and semantically similar element of language B (thus, a case of pattern borrowing which was still triggered by contact with another language), or as a matter borrowing from language B. See

Megleno-Romanian dialects, where the extension of prs.1sg *-m* and prs.2sg *-ś* verb markers to the conjugation types where they initially were absent may be treated as results of the inner development or as borrowings from Macedonian where we have phonetically similar formants (Friedman 2012: 324–328), and the Albanian dialect of Dibra with prs.2sg *-sh* in indicative having a similar interpretation. However, both kinds of "etymologies" are nearly impossible to prove, considering the simultaneous access of the speakers to both languages in the situations of intensive bilingualism. Thus, explaining such cases as combinations of matter and pattern borrowing seems a more plausible solution(see also Friedman 2012).

3. Finally, we point out instances from the areas where the MAT/PAT distinction traditionally applies in only a restricted way, such as the striking parallelism of some morphophonemic alternations in Albanian and Rumanian. In both languages, plurals (mainly from masculine nouns) can be marked by palatalization of the final stem consonant (Alb. sg *plak* – pl *ple/c/* 'old man', Rum. sg *plop* – pl *plo/p'/* 'poplar'), which was caused by the semantically and phonetically similar plural endings *-i.* The contact explanation of such a development in Rumanian is more than plausible, as the other Romance languages do not have similar morphophonemic changes in the same conditions. Such contact phenomena, where the morphonological mechanism itself is "borrowed" stay in some way outside the MAT/PAT dichotomy (like the phenomena in the field of phonology), and probably demonstrate a good example of the "replica grammaticalization" process according to (Heine & Kuteva 2003).

References

Boretzky, Norbert & Birgit Igla. 1991. *Morphologische Entlehnung in den Romani Dialekten*. Essen: Universität Essen.

Friedman, Victor. 1994. Surprise! Surprise! Arumanian Has Had an Admirative! In *Indiana Slavic Studies* 7, 79–89.

Friedman, Victor. 2012. Copying and cognates in the Balkan Sprachbund. In Lars Johanson & Martine I. Robbeets (eds.), *Copies versus cognates in bound morphology*, 323–336. Leiden & Boston: Brill.

Heine, Bernd & Tania Kuteva. 2003. On contact-induced grammaticalization. In *Studies in Language* 27(3), 529–572.

Morozova, Maria S. 2016. Govor albancev Ukrainy: Grammaticheskij ocherk. In Novik, Alexander A., Maria S. Morozova, Denis S. Ermolin (eds.). *Priazovskiy otryad*, part 1, vol. 2, 421–506. Saint Petersburg: MAE RAS.

Sokolova, Bojka. 1983. *Die albanische Mundart von Mandritsa*. Berlin: In Kommission bei Otto Hararssowitz.

Matter borrowing followed by pattern borrowing: Evidence from Moksha Mordvin and Beserman Udmurt[27]

Daria Bikina & Alexey Kozlov

(National Research University Higher School of Economics; Institute of Linguistics, Russian Academy of Sciences)

The linguistic contacts between Finno-Ugric and Turkic spoken in the Volga region have long been studied. There are not only numerous lexical and morphemic borrowings from Turkic to Finno-Ugric (and in the opposite direction), but also some syntactic features which have been claimed to be contact-induced (Isanbaev 1978, 1980; Johanson 2000; Manzelli 2015). Furthermore, the languages of this area undergo significant influence of Russian.

This research deals with the analysis of disjunctive particles in Moksha Mordvin (*kat'i*) and Beserman Udmurt (*olo*), which have been borrowed respectively from Russian and Tatar. These particles show very similar semantic and syntactic properties.

Thus, the Moksha Mordvin disjunctive particle *kat'i* (borrowed from the grammaticalized Old Russian imperative form of the verb 'want' *xot'i*) has a large number of different uses. Attached to an interrogative, it functions as indefiniteness marker; appearing on the left periphery of an independent clause, *kat'i* behaves as epistemic modal marker. It can also introduce oblique question under several conditions, or be used independently (in question-answer contexts).

The Beserman Udmurt disjunction *olo* was directly borrowed from the Tatar *ällä* 'or'. This particle can also appear as indefiniteness or oblique question marker. The semantics of indefinite pronouns with *olo-,* as well as the restrictions on forming oblique questions by this mean, are the same as in the case of Moksha Mordvin *kat'i*.

One can find the correlates of the Tatar paticle *ällä* in other Uralic and Turkic languages of the Volga region, e.g. *älä* in Meadow Mari, *ällä* in Bashkir. Usually these particles can occur in at least more than one of the functions mentioned for the Beserman Udmurt *olo* and the Tatar *ällä*. However, to the best of our knowledge, there is no reason to expect for the particle *kat'i* to have the apparent functions: its correlates in the minority languages of Russia do not show any extension of their semantics. This allows us to assume that the discussed borrowings used the same structural pattern which is represented in the source language of *olo* (Tatar), but not in the source language of *kat'i* (Russian).

We assume that the marker *kat'i* in Moksha Mordvin is an example of combining matter and pattern borrowing. Firstly, it was borrowed from Russian as a disjunctive particle (whereas that was one of the core functions of the *xot'i* particle in Old Russian (Nikolaeva, Fougeron 1999)). Then, it was patterned on Tatar by analogy with *ällä*. In this way, two different types of borrowing come from different source languages: the matter was borrowed from Russian, while the pattern was borrowed from Tatar.

It should be noted that whenever there is pattern borrowing in Moksha Mordvin, it usually comes from Tatar and not from Russian. In general, if a language has been influenced by two languages of different origin, then pattern borrowing comes from the source language whose structure is closer to the structure of the recipient language, as it is in the case of Turkic and Finno-Ugric in comparison to Turkic and Russian.

References

Isanbaev 1978 – Isanbaev, N. I. Vliyanie tatarskogo yazyka na padežnuyu sistemu vostočnomarijskix govorov [The influence of the Tatar language on the case system of Western Mari dialects]. *Sovetskoe finnougrovedenie* 3. Pp. 172–177.

Isanbaev 1982 – Isanbaev, N. I. Rol' yazykovyx kontakotov v razvitii kategorii množestvennosti v marijskom yazyke [The role of language contact in the evolution of plurality in Mari]. *Problemy russko-finnougorskogo dvuyazyčiya.* Joshkar-Ola. Pp. 30–46.

Johanson 2000 – Johanson, L. 2000. Linguistic convergence in the Volga area. *Languages in Contact,* eds. D. G. Gilbers, J. Nerbonne, and J. Schaeken. Amsterdam – Atlanta, G: Rodopi. Pp. 165–178.

Manzelli 2015 – Manzelli, G. 2015. Mutual influences in negative patterns between Finno-Ugric and Turkic languages in the Volga-Kama area. *Negation in Uralic languages,* eds. Miestamo, M., Tamm, A., and B. Wagner-Nagy. Amsterdam / Philadelphia: John Benjamins Publishing Company. Pp. 633–652.

Nikolaeva, Fougeron 1999 – Nikolaeva T. M., Fougeron I. 1999. Nekotorye nablyudeniya nad semantikoj i statusom složnyx predloženij s ustupitel'nymi soyuzami [Some observations on semantics and status of complex sentences with concessive conjunctions]. *Voprosy yazykoznaniya* 1. Pp. 17–36.

WORKSHOP 14

Modelling the acquisition of foreign language speech: Old meets new

Magdalena Wrembel & Katarzyna Dziubalska-Kołaczyk
(Adam Mickiewicz University in Poznań)

This Workshop is intended to focus on modelling of phonological aspects of foreign language acquisition. Both acquisition and phonology, as areas of linguistic inquiry, have been considerably underrepresented in recent years at general linguistic conferences, such as SLE, therefore, our aim is to redress the existing imbalance.

The study of second language speech has emerged over the past few decades, and recently we have witnessed an upsurge of publications that provide a state-of-the-art overview of major issues in L2 speech perception and production and reflect a rapidly growing importance of this area of language studies (e.g. Bohn & Munro (2007), Hansen Edwards and Zampini (2008), Gut (2009), Wrembel, Kul and Dziubalska-Kołaczyk (2011)).

As far as the theoretical models of L2 phonological acquisition are concerned, the two most influential and most often quoted proposals include Best's Perceptual Assimilation Model (PAM) and Flege's Speech Learning Model (SLM). PAM and PAM-L2 (Best 1995, Best & Tyler 2007) posit that L1 shapes non-native perception and L2 sounds are assimilated into L1 phonological categories based on the level of perceived similarity. SLM (Flege 1995) postulates that L2 speech sounds are perceived as identical, new or similar to L1 sounds thus determining whether new L2 categories can be established or the process of equivalence classification between L1 and L2 sounds will take place. These theoretical constructs have been widely tested in empirical investigations (cf. Bohn & Munro 2007, Hansen Edwards & Zampini 2008). However, the traditional frameworks have been quite limited in number and scope and they suffer from some limitations.

The workshop aims to investigate the explanatory potential of the existing theories of acquisition of foreign language phonology and shed new light on the recent developments in the area and their potential impact on modelling this process. For instance, new technologies have enabled scholars in the field to pursue a wider range of problems and to employ new methodologies to speech related research, including fine-grained phonetic analysis or phonetically annotated corpora. Further, novel interdisciplinary approaches have been adopted to the exploration of L2 phonology featuring, among others, insights from neurolinguistics and psycholinguistics. Moreover, assuming a multilingual perspective has led to the expansion of the field to multilingual acquisition reflecting its central phenomenon of cross-linguistic influence, which implies multidirectionality and involves all the languages from the mulitlingual person's repertoire, including the L1.

The workshop will address the following questions:

- What is the status of phonetic categories in the traditional models? Do they have any phonological correspondence?
- Are traditional frameworks able to account for the complex phenomena in the context of multilingual acquisition and to overcome a bilingual bias?
- Do they allow for cross-linguistic influence rather than unidirectional transfer?
- Can they account for the process of L1 attrition?

- Do we still look for a bigger picture, an explanatory framework when interpreting our empirical data? Do we seek an explanation rather than concentrate on small details?
- What does interdisciplinary research contribute to the modelling of speech acquisition?
- Can we expand explanatory potential by transferring/ incorporating insights from interdisciplinary research (i.e. transdisciplinarity)?
- Do we combine efforts to explain speech acquisition by various disciplines (i.e. interdisciplinarity)?

The workshop will bring together leading researchers working on phonological aspects of foreign language acquisition from different perspectives and using different methodologies and frameworks, with a view to providing a comprehensive picture of modelling speech acquisition. We aim to review the development of the long-standing frameworks and explore whether they have responded to new challenges and developments in the research on speech. We want to seek alternative explanatory frameworks to overcome the above mentioned limitations of the existing models.

Natural Growth Model: Explaining third language phonological acquisition

Katarzyna Dziubalska-Kołaczyk & Magdalena Wrembel
(Adam Mickiewicz University in Poznań)

Third Language Acquisition has recently emerged as a separate subfield of inquiry, however none of the existing models accounts specifically for the acquisition of speech in the third or additional language. This paper aims to propose a new explanatory framework of the Natural Growth Model (NGM) (Dziubalska-Kołaczyk & Wrembel, in prep.) and to support it with evidence from recent studies on L3 phonology (Wrembel, 2015).

Critical assessment of the general theoretical models of multilingual acquisition (CEM Flynn et al. 2004; L2 Status Model Bardel and Falk 2007; TPM Rothman 2010) shows that they fail to provide satisfactory accounts of the process of L3 phonological acquisition. Thus, we propose a model stemming from the framework of Natural Phonology (e.g. Stampe 1979, Donegan & Stampe 2009, Dressler 1984, 1996, Dziubalska-Kołaczyk 2002, 2009, 2012), with the epistemological support from Complexity Theory (cf. Kretzschmar 2015). The major tenets of the Natural Growth Model include: (1) Gradual dynamic emergence of an L3/Ln phonology, with input from L1, L2, other L's, typology, universals, and context, (2) Impact of input dependent on frequency/usage, (3) Universal, typological and language-specific processes of the growth.

The inductive support for the model comes from three series of studies conducted in parallel on four groups of multilingual participants (N=128) with complementary language combinations (i.e. Polish, English, French and German as L1/L2/L3) (Wrembel, 2015). The studies involved (1) accentedness ratings; (2) VOT acoustic measures, (3) oral protocols of metaphonological awareness. The design was based on a holistic approach combining different methodologies of data collection and analysis. The results show that it is difficult to provide a unified account for the sources of cross-linguistic influence (CLI) in L3 phonology since the process is dynamic and complex. Further, the nature of the attested combined CLI appears to be gradual and structure-dependent rather than absolute.

We aim to interpret specific evidence stemming from the above studies within the framework of Natural Growth Model embedded in NP which offers considerable advantages over other phonological theories with respect to its applicability to models of language acquisition (Dziubalska-Kołaczyk 1990). It provides an often missed link between phonology and phonetics by claiming that phonological systems are phonetically motivated. Moreover, NP offers a functionalist position embracing communicative and cognitive orientation of language and conditioning impact of extralinguistic factors. We claim that in L3 acquisition, just as in L2 and L1 acquisition, phonological "processes reflect real constraints on speaker abilities" (Donegan & Stampe 2009: 15), affecting both perception and production. However, these cause-and-effect or teleological explanations do not account for the entirety of acquisition, since some elements may arise without any deterministic causes, as claimed by Kretzschmar (2015: 1). Therefore, we want to combine those apparently divergent epistemologies to arrive at a comprehensive account of third language acquisition.

References

Bardel, Camilla and Falk, Ylva. 2007. The role of the L2 in L3 acquisition: the case of Germanic syntax. *Second Language Research* 23(4): 459-484.

Donegan, Patricia J. and Stampe, David. 2009. Hypotheses of natural phonology, *Poznan Studies in Contemporary Linguistics* 45.1: 3–31.

Dressler, Wolfgang U. 1984. Explaining Natural Phonology. *Phonology Yearbook* 1. 29-50.

Dressler, Wolfgang U. 1996. Principles of naturalness in phonology and across components. In B. Hurch & R. Rhodes (eds.). *Natural phonology: The state of the art*. Berlin: Mouton de Gruyter, 41-52.

Dziubalska-Kołaczyk, Katarzyna. 1990. *A Theory of Second Language Acquisition within the Framework of Natural Phonology*. Poznań: Adam Mickiewicz University Press.

Dziubalska-Kołaczyk, Katarzyna. 2002. *Beats-and-Binding Phonology*. Frankfurt am Main: Peter Lang. s. 331.

Dziubalska-Kołaczyk, Katarzyna. 2009. NP extension: B&B phonotactics. *Poznań Studies in Contemporary Linguistics* 45(1). 55-71.

Dziubalska-Kołaczyk, Katarzyna. 2012. Modern Natural Phonology and phonetics. in: Cyran, E., H. Kardela and B. Szymanek (eds.). *Sound, Structure and Sense. Studies in Memory of Edmund Gussmann*. Lublin: Wydawnictwo KUL. 199-210.

Flynn, Suzanne, C. Foley and I. Vinnitskaya. 2004. The Cumulative-Enhancement Model for Language Acquisition: Comparing Adults' and Children's patterns of Development in L1, L2 and L3 acquisition of Relative clauses. *The International Journal of Multilingualism* 1(1): 3-16.

Kretzschmar, William. 2015. *Language and Complex Systems*. Cambridge: Cambridge University Press.

Rothman, Jason. 2010. On the typological economy of syntactic transfer: Word order and relative clause attachment preference in L3 Brazilian Portuguese. *International Review of Applied Linguistics* 48(2-3): 245-273.

Stampe, David. 1979. *A Dissertation on Natural Phonology*. New York: Garland.

Wrembel, Magdalena. 2015. *In search of a new perspective: Cross-linguistic influence in the acquisition of third language phonology*. Poznań: Wydawnictwo Naukowe UAM.

Modelling non-native prosodic acquisition

Ulrike Gut
(University of Münster)

This talk discusses the challenges and requirements for theoretical models of the acquisition of the prosody/suprasegmental phonology of a non-native language. After giving a brief introduction to the various areas of prosody (including intonation/tone, phrasing, nucleus placement, speech rhythm and word stress), I will present the current state of the art in the modelling of the acquisition of prosody by non-native speakers: While some theoretical models have been developed to explain and predict the acquisition of intonation, including tonal alignment and pitch range (Mennen 2015), and the acquisition of word stress (Archibald 1994, Altmann 2006), no theoretical models have yet been proposed for the acquisition of other prosodic phenomena such as nucleus placement and speech rhythm of a non-native language. Moreover, the existing models are somewhat limited in scope as they mainly predict the specific acquisition difficulties for learners with different first languages (L1s) by comparing the prosodic systems of the target language and the L1, but do not take into account other factors such as the speakers' other languages and their mutual interplay.

Consequently, in the second half of the talk I will discuss the challenges and requirements for improving existing and developing more comprehensive new models of prosodic acquisition by non-native learners. These are based on both large-scale empirical studies of non-native prosody (e.g. Gut 2009) and new theoretical advances: i) models of the acquisition of non-native prosody should make the fundamental distinction between bilingual and multilingual language learners (e.g. De Angelis 2007); ii) they should include the description of cross-linguistic influence between all the languages of a multilingual speaker as well as iii) allow for the existence of universal features in prosodic acquisition and iv) include the link between perception and production in prosodic acquisition. Further, the question of modelling language acquisition as linear or dynamic according to chaos theory (e.g. Herdina & Jessner 2002, de Bot 2012) will be discussed.

References

Altmann, H. (2006). *The perception and production of second language stress: A cross-linguistic experimental study*. Doctoral dissertation, University of Delaware.

Archibald, J. (1994). A formal model of learning L2 prosodic phonology. *Second Language Research* 10: 215-240.

De Angelis, G. (2007). *Third or additional language acquisition*. Clevedon: Multilingual Matters.

de Bot, K. (2012). Rethinking multilingual processing: From a static to a dynamic approach. In J. Cabrelli Amaro, S. Flynn, & J. Rothman (eds.), *Third Language Acquisition in Adulthood.* Amsterdam: John Benjamins, pp. 79– 93.

Gut, U. (2009). *Non-native speech. A corpus-based analysis of the Phonetic and Phonological Properties of L2 English and German*. Frankfurt: Peter Lang.

Herdina, P. & Jessner, U. (2002). *A dynamic model of multilingualism: Perspectives of change in psycholinguistics*. Clevedon: Multilingual Matters.

Mennen, I. (2015). Beyond segments: towards a L2 intonation learning theory (LILt). In: Delais-Roussarie, E., Avanzi, M., Herment, S. (Eds.), Prosody and Language in Contact: L2 acquisition, attrition, languages in multilingual situations. London: Springer Verlag, pp. 171-188.

The Role of Individual Differences in the Acquisition of L2 Speech

Joan C. Mora

(Universitat de Barcelona)

Models of L2 speech acquisition such as the Speech Learning Model (SLM; Flege, 1995) and PAM-L2 (Perceptual Assimilation Model for L2 learners; Best & Tyler, 2007) have identified several contextual and age-related factors contributing substantially to the acquisition of L2 speech, such as onset of L2 learning and amount of L1 and L2 use (Bohn & Munro, 2007). However, irrespective of learning context (immersion, instructed SLA, phonetic training), large individual differences (IDs) remain in how accurately learners perceive and produce L2 segmental contrasts, in how sensitive they are to cross-language phonetic differences, and in how accurately they form L2 sound categories (Bongaerts et al. 1997; Bradlow et al., 1999; MacKay et al., 2001). Together with affective learner variables such as motivation and personal engagement (Dörnyei, 2006; Moyer, 2014), IDs in the use of executive control in speech processing (working memory, attention and inhibition) may explain a considerable amount of variance in L2 phonological attainment (Golestani & Zatorre, 2009; Lev-Ari & Peperkamp, 2013, 2014; Darcy, et al., 2016) and may determine the extent to which learners' individual characteristics interact with learning contexts (Link et al., 2009). More efficient L2 speech processing may lead to the development of better L2 perception and production skills, potentially contributing to pronunciation improvement in any learning context. I will present data from two studies examining the role of IDs in cognitive ability in L1-Spanish/Catalan bilingual EFL learners' processing of L2-English speech. Study 1 focused on the role of inhibitory control on the perception of a difficult L2 vowel contrast (/iː/-/ɪ/) and the production of L2 voiceless oral stops (/p, t, k/). Vowel perception accuracy was tested through ABX discrimination and lexical decision tasks, whereas accuracy in oral stop production (VOT) was measured on word-initial stops elicited in a bilingual picture naming task (Goldrick et al., 2014). We assessed individual differences in inhibitory control through various linguistic and non-linguistic inhibition tasks: auditory stroop, retrieval induced forgetting (Veling & Knippenberg, 2004), auditory inhibition during sentence comprehension (Filippi et al., 2012), Simon and Flanker. We controlled for inter-learner differences in L2 proficiency through a vocabulary size test. Study 2 focused on the role of inhibition (flanker) and attention switching (switching between visual and auditory dimensions in an alternating runs paradigm; Monsell, 2003) on the processing of function and lexical words (as captured by eye tracking data) during bimodal (audio + text) input exposure in L2-English captioned video. An elicited imitation task (Ortega et al., 2002) provided a measure of L2 proficiency and a word spotting task (McQueen, 1996) a measure of L2 speech segmentation skills. Preliminary results reveal a complex interplay between proficiency, cognitive skills and L2 speech processing, suggesting that different language processing tasks require learners of different levels to engage different cognitive resources to varying extents. We will argue that these and similar data justify the need of current models like SLM and PAM-L2 to account for IDs in L2 speech processing in order to explain and promote L2 speech learning in a variety of learning contexts.

References

Best, C., Tyler, M. (2007). Nonnative and second-language speech perception: Commonalities and complementaries. In Bohn, O. and Munro, M. (Eds.), Language Experience in Second Language Speech Learning In honor of James Emil Flege. (pp. 13-34). Amsterdam: John Benjamins.

Bongaerts, T., Van Summeren, C., Planken, B., & Schils, E. (1997). Age and ultimate attainment in the pronunciation of a foreign language. *Studies in Second Language Acquisition*, 19(4), 447-465.

Bradlow, A.R., Akahane-Yamada, R., Pisoni, D.B., & Tohkura, Y. (1999) Training Japanese listeners to identify English /r/ and /l/: Long-term retention of learning in perception and production. *Perception & Psychophysics*, 61, 977–985.

Darcy, I., Mora, J. C. & Daidone, D. (2016). The role of inhibitory control in second language phonological processing. *Language Learning*, 66 (3). DOI: 10.1111/lang.12161.

Dörnyei, Z. (2006) Individual differences in second language acquisition. *AILA Review* 19, 42-68.

Filippi, R., Leech, R., Thomas, M. S., Green, D. W., & Dick, F. (2012). A bilingual advantage in controlling language interference during sentence comprehension. *Bilingualism: Language and Cognition*, 15(4), 858-872.

Flege, J.E. (1995) Second language speech learning: Theory, findings and problems. In Strange, W. (ed), Speech Perception and Linguistic Experience: Issues in Cross-Language Research (pp. 233-277). Timonium, MD: York Press.

Golestani, N., & Zatorre, R. J. (2009). Individual differences in the acquisition of a second language phonology. *Brain and Language*, 109, 55–67.

Goldrick, M., Runnqvist, E., & Costa, A. (2014). Language switching makes pronunciation less nativelike. *Psychological Science*, 25(4), 1031-1036.

Lev-Ari, S., & Peperkamp, S. (2013). Low inhibitory skill leads to non-native perception and production in bilinguals' native language. *Journal of Phonetics*, 41, 320–331.

Lev-Ari, S., & Peperkamp, S. (2014). The influence of inhibitory skill on phonological representations in production and perception. *Journal of Phonetics*, 47, 36-46.

Linck, J. A., Kroll, J. F., & Sunderman, G. (2009). Losing access to the native language while immersed in a second language: Evidence for the role of inhibition in second-language learning. *Psychological Science*, 20(12), 1507-1515.

MacKay, I.R.A., Meador, D., & Flege, J.E (2001) The identification of English consonants by native speakers of Italian. *Phonetica,* 58, 103-125.

McQueen, J. (1996). Word spotting. *Language and Cognitive Processes*, 11(6), 695-699.

Monsell, S. (2003). Task switching. *Trends in Cognitive Sciences, 7*(3), 134-140.

Moyer, A. (2014) Exceptional outcomes in L2 phonology: The critical factors of learner engagement and self-regulation. *Applied Linguistics*, 35 (4): 418-440.

Ortega, L., Iwashita, N., Norris, J. M., & Rabie, S. (2002, October). An investigation of elicited imitation tasks in crosslinguistic SLA research. In *Second Language Research Forum,* Toronto.

Veling, H. & van Knippenberg, A. (2004) Remembering can cause inhibition: Retrieval-induced inhibition as cue independent process. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 30, 315-318.

Existing models of L2 phonological development are not sufficiently broad

Piers Messum
(Pronunciation Science Ltd, London)

In principle, a learner can construct the phonology of a language from perceptual data, from

production data or from some combination of these two. But in current theoretical approaches to both L1 and L2 acquisition, it is assumed that the primary data source is perceptual. Production (instantiated in the pronunciation of the language) is seen as secondary, developed from perceptual categories in multiple auditory matching-to-target processes. In other words, production is believed to follow perception, even if some experimental L2 data has found the opposite (e.g. Sheldon and Strange 1982). However, this picture faces further challenges.

In L1 acquisition, Messum and Howard (2015) have proposed that a young child does not develop the pronunciation of speech sounds by imitation, i.e. from perceptual categories. Instead, they describe how the constructive activity of social partners shapes and gives linguistic significance to early noise production (e.g. during babbling), which then turns into the speech sound primitives which are used to produce words. In this scenario, production initially develops independently from perception before a process of reconciliation begins. This is consistent with the data from neuroscience which mostly supports the existence of two L1 phonological lexicons in adults (e.g. Jacquemot et al. 2007), not the single phonological lexicon implied by a 'production from perception' paradigm.

If we must now allow that perception may not be the initial source of phonology in L1, then we should also acknowledge that the success of Gattegno's approach to teaching pronunciation in the Silent Way (Gattegno 1963) is an anomaly in L2. He and others have demonstrated that the sound system of a language can be acquired with the help of the constructive activity of a skilled social partner (the Silent Way teacher) but without the input of any (authoritative) perceptual data. Thus our L2 acquisition models must, at the very least, be updated: a place must be found for a production-first route in addition, perhaps, to a perception-first one.

References

Gattegno, C. (1962). Teaching Foreign Languages in Schools: the Silent Way (First edition). Reading: Educational Explorers.

Jacquemot, C., Dupoux, E., & Bachoud-Lévi, A.-C. (2007). Breaking the mirror: Asymmetrical disconnection between the phonological input and output codes. Cognitive Neuropsychology, 24(1), 3–22.

Messum, P. R., & Howard, I. S. (2015). Creating the cognitive form of phonological units: The speech sound correspondence problem in infancy could be solved by mirrored vocal interactions rather than by imitation. Journal of Phonetics, 53, 125–140.

Sheldon, A., & Strange, W. (1982). The acquisition of /r/ and /l/ by Japanese learners of English: evidence that speech production can precede speech perception. Applied Psycholinguistics, 3, 243–261.

The phonetics and phonology of similarity in second language speech perception

Nadja Kerschhofer-Puhalo

(University of Vienna & University of Innsbruck)

Similarity is one of the central concepts in many models of second language speech perception and acquisition (e.g. Best 1995; Flege 1987, 1995; Kuhl 1992, 1993). The operationalization of this construct, however, has not yet received sufficient attention. This presentation aims to discuss "old" and "new" approaches to the construct of similarity and to integrate contributions from second

language acquisition research, experimental phonetics and cognitive psychology for a better understanding of the cognitive aspects of similarity in non-native speech perception.

From a phonologically-oriented view, similarity may be defined by distinctive feature agreement, whereas similarity in a phonetically-based approach is more difficult to define. It is a matter of fact that *perceptual similarity* between German vowel categories cannot be predicted directly from *physical properties* of the acoustic signal but is determined by the listener's attentional tuning to specific dimensions of the perceptual space and by language-specific and more general physical and cognitive *biases* associated with stimuli as well as responses. Therefore, it is necessary to take psychological approaches to similarity into account.

Similarity in second language speech perception will be discussed here focussing on three major aspects: (1) *inter*-language similarity vs. *intra*-language similarity, (2) *phonetic* distance and similarity vs. *psychological* similarity and the necessity to take into account the non-linear and language-specific relation between articulatory or acoustic properties of vowel stimuli and the L2 listeners' responses in L2 perception experiments, and (3) empirically grounded ways of operationalizing *perceptual similarity* between L2 vowel categories in terms of similarity scores and distances in spatial MDS representations (Shepard 1972, 1980; Johnson 2012). In this presentation, Multidimensional Scaling (MDS) will be discussed as one approach to modelling perceptual similarity between phonemes of the target. In an MDS representation of the perceptual space under consideration, distances between points correspond to the perceived similarity between objects or categories. This mapping of phoneme types to a geometric two- or three-dimensional space provides a visualization of intra-lingual similarity that would not readily be apparent in other types of data representation. The method has been used in a number of previous studies to model the perceptual similarity of phonemes (e.g. Shepard 1972; Terbeek 1977; Kewley-Port & Atal 1989; Iverson & Kuhl 1995; Fox, Flege & Munro 1995; Francis & Nusbaum 2002). Previous experiments using MDS solutions have postulated a high correspondence between distances in MDS solutions and acoustic-phonetic properties such as vowel formants. This view will be challenged here by a study on a cross-linguistic influence on vowel perception in L2 German with learners form ten different native languages (Kerschhofer-Puhalo 2014).

Rather than predicting perceptual similarity directly from phonetic properties, perceptual *similarity* s_{ij} between vowel categories of the target language will be modelled as the result of the complex interaction of phonetic *proximity* p_{ij}, stimuli biases b_i and response *biases* b_j ($s_{ij} = p_{ij} * b_i * b_j$). *Biases* vary according to characteristics of the acoustic signal, the set of stimuli and response categories presented in an experimental setting and the listeners' language experience (in L1, L2, Ln), L2 proficiency and their individual conception of the target language vowel system. These effects of similarity and bias will be exemplified with data from the above mentioned perception experiment. Alternatively to more traditional mono-directional conceptions of similarity between L1 and L2 sounds, we favour a *cross-linguistic influence*-approach that helps us to account for ease and difficulty, preferences and avoidance in L2 perception experiments.

References

Best, C. 1995. A direct realist perspective on cross-language speech perception. In: Strange, W. (ed.). *Speech Perception and Linguistic Experience: Issues in Cross-Language Research*. Timonium, MD: York Press, 171-204.

Flege, J. 1987. The production of "new" and "similar" phones in a foreign language: Evidence for the effect of equivalence classification. JPhon, 15, 47-65.

Flege, J. 1995. Second-language speech learning: Theory, findings, and problems. In: Strange, W. (ed.). Speech Perception and Linguistic Experience: Issues in Cross-Language Research. Timonium, MD: York Press, 233-277.

Fox, R., Flege, J., Munro, M. 1995. The perception of English and Spanish vowels by native English and Spanish listeners: A multidimensional scaling analysis. JASA, 97, 2540-2551.

Francis, A. & Nusbaum, H. 2002. Selective attention and the acquisition of new phonetic categories. Journal of Experimental Psychology: Human Perception and Performance, 28 (2), 349-366.

Hillenbrand, J. 2013. Static and dynamic approaches to vowel perception. In: Morrison, G. & Assmann, P. (eds.). Vowel inherent Spectral Change. Modern Acoustics and Signal Processing. Berlin, Heidelberg: Springer, 9-30.

Iverson, P. & Kuhl, P. 1995. Mapping the perceptual magnet effect for speech using signal detection theory and multidimensional scaling. JASA, 97, 553-562.

Johnson, K. 2012. Acoustic and Audotory phonetics. 3rd ed. Wiley-Blackwell.

Kerschhofer-Puhalo, N. 2014. Similarity, Cross-linguistic Influence and Preferences in Non-Native Vowel Perception. An experimental cross-language comparison of German vowel identification by non-native listeners. Dissertation, University of Vienna.

Kewley-Port, D. & Atal, B. 1989. Perceptual distances between vowels located in a limited phonetic space. JASA, 85, 1726-1740.

Kuhl, P. 1993. An examination of the 'perceptual magnet' effect. JASA, 93, 2423.

Kuhl. P. 1992. Speech prototypes: studies in the nature, function, ontogeny and phylogeny of the 'centers' of speech categories. In: Tohkura, Y., Vatikiotis-Bateson, W., Sagisaka, Y. (eds.). Speech Perception, Production and Linguistic Structure. Tokyo: Ohmsha, 197-219.

Shepard, R. 1972. Psychological representation of speech sounds. In: David, E. & Denes, P. (ed.). Human Communication: A Unified View. New York: McGraw-Hill, 67-113. [http://courses.cit.cornell.edu/ling4476/shepard-on-speech-sounds.pdf]

Shepard, R. 1980. Multidimensional Scaling, Tree-Fitting, and Clustering. Science, 210, 390-398. [http://serendip.brynmawr.edu/local/scisoc/emergence/shepard80.pdf]

Terbeek, D. 1977. A Cross-Language Multi-Dimensional Scaling Study of Vowel Perception. PhD Dissertation. University of California, Los Angeles. [http://escholarship.org/uc/item/3nx4g138?display=all#page-1]

The perception of non-native phonological categories in adult-directed and infant-directed speech: An experimental study

Katarzyna Klessa & Maciej Karpiński
(Adam Mickiewicz University in Poznań)

Phenomena of native and non-native speech perception continue to be of interest to various research communities, also from the perspective of L2 learning and teaching (Jamieson & Morosan, 1986; Flege et al, 1997; Best & Tyler, 2007).

It has been reported that infant-directed speech (IDS) contributes to better intersensory integration (Kitamura et al., 2014) and allows for more successful word learning in infants than adult-directed speech (ADS) (Zhangl & Mills, 2007). IDS involves a range of facilitatory features that help infants to segment speech, to distinguish between speech sounds, and to acquire new phonological categories in L1 (e.g., Jusczyk et al., 1999, Thiessen & Saffran 2005, Fernal & Simon, 1984, Trainor & Desjardins, 2002). At least some of these mechanisms may be available also to adults in the process of L2 perception.

In the present study, we test whether adult listeners detect phonological contrasts more precisely and faster in non-native IDS than in non-native ADS. The underlying assumption was that faster and more accurate responses for IDS-based stimuli may result from language-independent facilitating properties of IDS, including not only hyperarticulation on the segmental level but also prosodic features responsible for drawing attention.

Twenty participants of our study listened to pairs of speech signals presented using the "same or different" discrimination procedure. The recording material consisted of laboratory-elicited speech samples in French, German, and Korean selected from the NPK corpus of infant-directed speech and adult-directed speech (Klessa, Karpiński, & Czoska, 2015). Each pair of signals contained target vowels or consonants representing a certain category of contrast that was phonologically relevant in a given language but not necessarily in Polish, i.e., the native language of the participants. The signals were presented in random order and each pair occurred in the material twice as IDS, and twice as ADS (144 two-signal stimuli). The answers provided by the participants as well as the respective reaction times were automatically recorded. After the experimental session, the participants were additionally requested to fill in a questionnaire on their language skills and competences.

The availability of language-independent facilitating mechanisms of IDS to its adult non-native listeners may be interpreted as another reason to reconsider the nature of the Critical Period and models of L2 adult learning. As a consequence, it may open new pathways for L2 phonetic and phonological training. The present results will find immediate applications in an on-going project dedicated to the investigation of phonological development. They may also contribute to the discussion on the optimum characteristics (natural vs. prepared, adjusted) of input in L2 acquisition and learning.

References

Best, C. T., & Tyler, M. D. (2007). Nonnative and second-language speech perception: Commonalities and complementarities. *Language experience in second language speech learning: In honor of James Emil Flege*, vol. 1334.

Czoska, A., Klessa, K., Karpiński, M. (2015). Polish Infant Directed vs. Adult Directed Speech: Selected Acoustic-Phonetic Differences, *Proceedings of The 18th International Congress of Phonetic Sciences*, Glasgow, UK.

Fernald, A., Simon, T. (1984). Expanded intonation contours in mothers' speech to newborns. Developmental Psychology, Vol 20(1), Jan 1984, 104-113.

Flege, J. E., Bohn, O. S., & Jang, S. (1997). Effects of experience on non-native speakers' production and perception of English vowels. *Journal of Phonetics, 25(4)*, 437-470.

Jamieson, D. G., & Morosan, D. E. (1986). Training non-native speech contrasts in adults: Acquisition of the English/ð/-/θ/contrast by francophones. *Perception & Psychophysics, 40(4)*, 205-215.

Jusczyk, P.W., Houston, D.M., & Newsome, M. (1999). The beginnings of word segmentation in English-learning infants. Cognitive Psychology, 39, 159–207.

Kitamura C, Guellaï B, Kim J (2014) Motherese by Eye and Ear: Infants Perceive Visual Prosody in Point-Line Displays of Talking Heads. PLOS ONE 9(10): e111467. doi: 10.1371/journal.pone.0111467

Klessa, K., Karpiński, M., Czoska, A. (2015). Design, structure, and preliminary analyses of a speech corpus of infant directed speech (IDS) and adult directed speech (ADS). Presented at: *48th Annual Meeting of Societas Linguistica Europea (SLE)*, Leiden, The Netherlands.

Thiessen ED, Hill EA, Saffran JR. (2005). Infant-directed speech facilitates word segmentation. *Infancy*. 2005;7(1):53–71. doi: 10.1207/s15327078in0701_5.

Trainor, L.J. & Desjardins, R.N. (2002). Pitch characteristics of infant-directed speech affect infants' ability to discriminate vowels. Psychonomic Bulletin & Review (2002) 9: 335. doi:10.3758/BF03196290

Zangl, R., & Mills, D.L. (2007). Increased brain activity to infant-directed speech in 6- and 13-month-old infants. *Infancy*, 11, 31–62.

Selective attention to features in second and foreign language vowel perception

Anna Balas

(Adam Mickiewicz University in Poznań)

This paper addresses the hypothesis that L2 speech perception is not only governed by similarity or dissimilarity to L1 speech sound categories, as postulated by two prevailing models in the field (Flege 1995, Best 1995, Best and Tyler 2007), but that a vital role is also played by selective attention to features used in L1 (cf. McAllister et al. 2002), even in a different context as argued by Bohn and Best (2012) and Pajak and Levy (2014). This is an attempt at abstracting features at the phonological level, as opposed to the focus on phonetic categories, especially in the Speech Learning Model.

Two series of studies were designed: (1) a longitudinal study of English vowel perception by Polish advanced learners in a formal setting involving 20 subjects and (2) a study on Dutch and Turkish as foreign languages vowel perception (with the emphasis on Dutch high front rounded vowels and the Turkish back unrounded vowel) by Polish learners of various L2s (Polish serves here as tertium comparationis for the influence exerted by L2s): English, French and Dutch (47 subjects). The experiments consisted of AXB discrimination tests and categorization tests with goodness ratings, following the methodology from Tyler et al. (2014).

The results partially confirm the hypothesis. In the first study the universal tendency of languages to have more vowel height contrasts than advancement contrasts is supplemented by the finding that vowel height contrasts are easier to perceive than tongue advancement contrasts, although the latter can also be improved. Tenseness/duration differences do not help in vowel discrimination, they contribute to lower goodness rankings, and they only seem to surface in a task in which subjects are asked to identify the vowels in terms of English vowel categories. In the second study, familiarity with the feature +rounded from L1 (Polish uses rounding for its back vowels and /w/) did not mean it could be easily abstracted and used in a completely different context (front vowels) (cf. Bohn and Best 2012 where abstracting rounding was successful in a similar phonetic environment: back vowel vs. labio-velar approximant). For example, percentage of Dutch /y/ categorization as Polish front /ɨ/ was 77.8 for learners of Dutch, 69.4 for learners of French and only 45.5 for learners of English. To determine whether selective attention to features should incorporate markedness (Eckman 1977) or whether the results depended solely on experience with front unrounded vowels, the perception of the Turkish back unrounded vowel was also tested. The results show that /ɯ/ was uncategorized dispersed (Faris et al. 2016) for learners of English and categorized for learners of French. This proves that experience with the feature [+rounded] in a contrastive/distinctive function in L2 French allows for disentangling rounding from backness even in new contexts. Selective attention to features works in the case of contrastive/distinctive features be it in L1 or L2.

References

Best, C. 1995. A direct realist view of cross-language speech perception. In W. Strange (red.), *Speech perception and linguistic experience: Issues in cross language research*. Timonium, MD: York Press, 233-277.

Best, C. and M. Tyler. 2007. Non-native and second language speech perception. In: O.-S. Bohn, M. Munro (Eds.) Language experience in second language speech learning: In honor of James Emil Flege. Amsterdam: John Benjamins, 13-34.

Bohn, O-S. and C. Best. 2012. Native-language phonetic and phonological influences on perception of American English approximants by Danish and German listeners. *Journal of Phonetics* 40: 109-128.

Eckman, F. 1977. Markedness and the contrastive analysis hypothesis. *Language Learning* 27(2), 315-330.

Faris, M., C. Best and M.Tyler. 2016. An examination of the different ways that non-native phones may be perceptually assimilated as uncategorized. *Journal of the Acoustical Society of America* Express Letters 139(1), 1-5.

Flege, J.E. 1995. Second language speech learning: Theory, findings and problems. In W. Strange (Ed.), *Speech perception and linguistic experience: Issues in cross language research* (pp. 233-277). Timonium, MD: York Press.

McAllister, R., J.E. Flege, T. Piske. 2002. The influence of L1 on the acquisition of Swedish quantity by native speakers of Spanish, English and Estonian. *Journal of Phonetics* 30, 229-258.

Pajak, B. and R. Levy. 2014. The role of abstraction in non-native speech perception. *Journal of Phonetics* 46, 147-160.

Tyler, M., C. Best, A. Faber, A. Levitt. 2014. Perceptual assimilation and discrimination of non-native vowel contrasts. Phonetica 71(1), 4-21.

Childhood Apraxia of Speech or acquiring phonology in the lack of sensory motor information: An early failure

Irene Lorenzini, Pier Marco Bertinetto, & Anna Maria Chilosi
(Scuola Normale Superiore di Pisa; Scuola Normale Superiore di Pisa; & IRRCCS Fondazione Stella Maris, Calambrone, Pisa)

Sensorymotor abilities are a prerequisite of speech production, but they are also active in adult perception. The question is whether this is a necessary process or an epiphenomenon (6). Pioneering research is highlighting interdependencies between production and perception during acquisition, with particular reference to audiovisual perception (3,7,8). Such studies underline the need to take into account the role of sensorymotor information in both L1 and L2 phonological acquisition.

In this framework, a relevant domain is represented by Childhood Apraxia of Speech (CAS). Despite absence of neuromuscular deficits, CAS children cannot fully control speech movements and present dramatic variability in speech. This severely jeopardizes the child's sensorimotor experience, preventing the setting of an efficient cross-modal mapping between articulation and auditory consequences.

We designed a specifically targeted perception study to shed light on the sensorymotor contribution to perception in CAS children. 25 CAS, 25 younger but language-matched typical children, and 30 adults undertook a forced-choice speech-in-noise audiovisual discrimination task, in which pairs of CV syllables were contrasted on the basis of: (i) high *vs.* low visibility (/ba/〜/ga/; /da/〜/na/); (ii) high *vs.* low phono-articulatory load (/da/〜/na/; /dza/〜/ʤa/).

We also aimed at evaluating whether correlations exist within the groups among speech motor control and perception proficiency. We assessed the former ability through a task evaluating diadochokinetic rate, accuracy and consistency, recorded both in normal condition and in auditory masking paradigm, which forces the speakers to rely on motor-proprioceptive capacities.

Preliminary data (15 CAS-children, 20 typical-children, 30 adults) support the hypothesis of a reduced ability in the elaboration of speech visual/sensorimotor cues in CAS subjects, showing similarities but also significant differences with language-matched children. Consonants with high phono-articulatory load are the most difficult condition for both groups. Correlations seem to emerge between production and perception performances (analysis towards completion). CAS participants apparently rely more on the physic-acoustic features of the stimuli *vs.* their phonological/categorical status then younger, typical ones.

References

1. Bruderer A.G., Danielson D.K., Kandhadai P. & Werker J. (2015). Sensorimotor influences on speech perception in infancy. *PNAS*, vol. 112(44), pp. 13531-13536.
2. Chilosi A.M., Lorenzini I., Fiori S., Graziosi V., Rossi G., Pasquariello R., Cipriani P. & Cioni G. (2015). Behavioral and neurobiological correlates of childhood apraxia of speech in Italian children. *Brain and Language*, vol. 150, pp. 177-185.
3. De Paolis R.A., Vihman M.M., Keren-Portnoy T. (2010). Do production patterns influence the processing of speech in prelinguistic infants? Infant Behavior and Development, vol. 34(4), pp. 590-601.
4. Groenen P., Maassen B., Crul T., Thoonen G. (1996). The Specific Relation Between Perception and Production Errors for Place of Articulation in Developmental Apraxia of Speech. *Journal of Speech and Hearing Research*, vol. 39(3), pp. 468-482.
5. Guellaï B., Streri A. & Yeung H.H. (2014). The development of sensorimotor influences in the audiovisual speech domain: Some critical questions. *Frontiers in Psychology*, vol. 5(812), pp. 1-7.
6. Skipper J.I., Devlin J.T. & Lametti D.R. (2017). The hearing ear is always found close to the speaking tongue: Review of the role of the motor system in speech perception. Brain & Language, vol. 164, 77-105.
7. Turner A.C., McIntosh D.N. & Moody E.J. (2015). Don't Listen With Your Mouth Full: The Role of Facial Motor Action in Visual Speech Perception. *Language and Speech*, vol. 58(2), pp. 267-278.
8. Yeung H.H. & Werker J.F. (2013). Lip movements affect infant audiovisual speech perception. *Psychological Science*, vol. 24(5), pp. 603-612.

/l/-darkening in Austrian learner English

Theresa Matzinger & Nikolaus Ritt

(Department of English, University of Vienna, Austria)

Focussing on English /l/-darkening, we investigate how Austrian foreign language learners acquire conditions on allophonic variation. Specifically, we are interested in the hypothesis that word level generalisations are more easily acquired than stem level generalisations, which reflects the naturalist tenet that words are primary signs (Dressler 1988: 144, Iacobini 2000: 868).

English /l/-darkening represents a suitable case for testing that hypothesis. Although the process has a clear and arguably categorical triggering condition – namely that /l/ should be in the syllabic coda – it has been shown, for example by Boersma and Hayes (2001: 76, cf. also Bermudez-Otero 2015) that it is in fact applied variably. Specifically, the /l/-darkening depends on the domain(s) in which the triggering condition that /l/ should be in the coda is met. Thus, darkening is categorical (99.9 %) when /l/ is in the coda or in final position on the stem level, the word level, and the phrase level, as in *help* [[[help]$_S$]$_W$]$_P$ or in *bell* [[[bell]$_S$]$_W$]$_P$. Dark [ɫ] also occurs almost exclusively (99.5 %) in /l/s that are both stem and word final, but ambisyllabic on the phrase level, as in *mail it* [[[mail]$_S$]$_W$[[it]$_S$]$_W$]$_P$. Of /l/s that are final only on the stem level, but intervocalic on the word level as in *feely* [[feel]$_S$y]$_W$, however, a significant proportion (16.7 %) surface light, and the vast majority of /l/s do so when they are intervocalic (76.7 %) or even initial (94.5 %) on the stem level, as in *Hayley* [[Hayley]$_S$]$_W$, or *freely* [[free]$_S$[ly]$_S$]$_W$.

Type	Stem level	Word level	Phrase level	% of dark [ɫ]
[[[help]$_S$]$_W$]$_P$ / [[[bell]$_S$]$_W$]$_P$	C	C	C	99.9
[[[mail]$_S$]$_W$[[it]$_S$]$_W$]$_P$	C	C	I	99.5
[[feel]$_S$y]$_W$	C	I	I	83.3
[[Hayley]$_S$]$_W$	I	I	I	23.3
[[free]$_S$[ly]$_S$]$_W$	O	I	I	5.5

Figure 1: Proportion of dark [ɫ]s as dependent on the levels on which /l/s occur in the coda. C = coda, I = intervocalic, O = onset (cf. Boersma & Hayes 2001: 76)

If word level generalisations are indeed more easily acquired than stem level generalisations, foreign learners should pronounce the /l/s in words of the *feely*-type more similarly to words of the *Hayley*-type than native speakers do, because on the word level they are equally intervocalic.

In our pilot (based on six Austrian students of English), we elicited /l/s in relevant contexts and in various speech styles. The majority of participants pronounced words of the *feely*-type and words of the *Hayley*-type indeed more like one another than native speakers do, although there was variation in the extent of /l/-darkening. Our findings thus suggest that the semiotic primacy of the word may indeed affect the L2 acquisition of domain specific constraints on sub-phonemic processes.

References

Bermudez-Otero, Ricardo. 2015. Amphichronic explanation and the life cycle of phonological processes. In Patrick Honeybone & Joseph Salmons (eds.), *Oxford Handbook of Historical Phonology*. Oxford: Oxford University Press.

Boersma, Paul and Bruce Hayes. 2001. Empirical tests of the Gradual Learning Algorithm. *Linguistic Inquiry* 32 (1): 45-86.

Dressler, Wolfgang U. 1988. Preferences vs. Strict Universals in Morphology: Word-based Rules. In Hammond, Michael & Noonan, Michael (eds.). *Theoretical Morphology*. San Diego, New York: Academic Press. 143-154.

Iacobini Claudio. 2000. Base and direction of derivation. In Booij, Geert, Lehmann, Christian & Joachim Mugdan (eds.). *Morphology. An International Handbook on Inflection and Word Formation*. Vol. 1. Berlin - New York: De Gruyter. 865-876.

WORKSHOP 15

New Approaches to Contrastive Linguistics: Empirical and Methodological Challenges

Renata Enghels & Marlies Jansegers
(Ghent University)

The practice of comparing languages has a long tradition characterized by a cyclic pattern of interest (Granger 2003; Schmied 2008). In the 1990s contrastive linguistics underwent a significant revival, which mainly originated from its meeting with corpus linguistics. This has led to a new wave of corpus-based contrastive studies. Still, until today there are two main challenges that have not yet been fully addressed: (1) an empirical assessment of the nature of the data which are commonly used in cross-linguistic studies (namely translation data vs. comparable data), and (2) the development of advanced methods and statistical techniques suitably adapted to the methodological challenges that are raised by contrastive research questions. This workshop aims to provide a forum through which these topics can be discussed.

The first challenge of contrastive linguistics relates to the variable nature of the empirical data it resorts to. Many contrastive linguists have turned to translation studies as a means of establishing cross-linguistic relationships (Granger, Lerot, Petch-Tyson 2003; Granger 2003; Johansson 2007). However, the use of parallel corpora as a source for contrastive linguistic research has not always gone undisputed. The most frequently cited disadvantages relate to (1) translation universals, i.e. "features which typically occur in translated text rather than original utterances" (Baker 1993: 243) and, (2) interference between the language of the source-text and the translated text (Johansson 1998; McEnery and Xiao 2008). However, contrary to these stated shortcomings, a commonly cited advantage of the use of parallel corpora relates to the *tertium comparationis*, i.e. a "common platform of comparison" (Connor & Moreno 2005: 157) against which differences can be described (James 1980; Johansson 2007; Granger 2010). The difficulty of establishing full comparability indeed constitutes one of the major stumbling blocks in the use of comparable corpora. Taking into account these limitations of both translation and comparable data, more recently, several linguists have argued in favor of a combination of the two, as complementary sources for cross-linguistic comparison (among others Viberg 2005; Altenberg and Granger 2002; Gilquin 2008; McEnery and Xiao 2008; Mortier and Degand 2009; Vanderschueren 2010; Enghels & Jansegers 2013; Jansegers 2017). However, up to the present, this combined corpus method has not yet been exploited to its full potential.

Moreover, in the last decade the analytical possibilities seem to have increased considerably as ever more multilingual data are made available. Contrastive linguistics not only benefits from the creation of huge web corpora (such as WebCorp and Sketch Engine), a growing number of new data types is becoming available, like subtitle corpora (e.g. Levshina, 2016) or the Wikipedia Parallel Titles Corpora. Besides the fact that the use of these resources is perhaps not yet widespread among linguists, the question of whether these different data can be applied to answer different contrastive research questions still remains to be answered.

A second challenge of contrastive linguistics relates to the methodological branch of corpus-based contrastive linguistics, which, according to Gast (2015: 5), "is still tender". Indeed, if a more advanced standard of methods and procedures is becoming common ground in monolingual studies (such as

logistic and mixed-effects regression techniques, clustering analyses, cf. among other Gries 2013, Levshina 2015), the implementation of such techniques is still in its infancy in the field of contrastive linguistics. What is more, the more advanced methodological tools that are suited to study the multidimensional nature of linguistic phenomena within one language, cannot be directly transferred to contrastive data without a thoughtful consideration, given the increased complexity of the latter. For instance, can language simply be taken as a response variable in regression models in order to compare different sensitivities to certain variables in the choice for certain linguistic expressions (as suggested for instance by Wiechmann 2011 in his study on relative clause constructions in English and German)?

This workshop aims at bringing together linguists working in different areas (synchronic, historical, and contrastive linguistics; translation or typological studies, etc.), and on different languages in order to reflect on the value and applicability of different kinds of empirical data for contrastive linguistics, and to contribute to methodological and theoretical advances in this domain. We particularly welcome submissions dealing with contrastive (case)studies making use of (more) rigorous empirically-based contrastive analyses (based on corpus data and/or experimental data) and/or making use of new data types, like subtitle corpora and web corpora. As such, we invite speakers to collectively discuss the methodological apparatus of Contrastive Linguistics, dealing with, but not limited to, the following questions:

1. How can we most efficiently make use of translation corpora for contrastive linguistics, while taking into account linguistic interferences and translation universals?
2. What (new) types of data are the most useful for what kind of contrastive questions?
3. Is it mandatory to complement translation data with comparable corpus data, or does this depend on the level of linguistic analysis (e.g. studies on lexical cognates vs. syntactic cognates vs. pragmatic phenomena, etc.)?
4. Which (advanced) statistical techniques are most suited to deal with the multidimensionality of contrastive research questions?
5. How can we go beyond a mere comparison of frequency tables between different comparable corpora?
6. How can we compare multifactoriality behind specific linguistic phenomena between two or more languages?

References

Altenberg, B., & Granger, S. (2002). Recent trends in cross-linguistic lexical studies. In B. Altenberg & S. Granger (Eds.), *Lexis in Contrast. Corpus-based approaches* (pp. 3-48). Amsterdam: John Benjamins.

Baker, M. (1993). Corpus linguistics and translation studies. Implications and applications. In M. Baker, G. Francis & E. Tognini-Bonelli (Eds.), *Text and technology. In honour of John Sinclair* (pp. 233-250). Amsterdam: John Benjamins.

Connor, U. M. & Moreno, A. I. (2005). Tertium Comparationis: A vital component in contrastive research methodology. In P. Bruthiaux, D. Atkinson, W. G. Eggington, W. Grabe, & V. Ramanathan (Eds.), *Directions in Applied Linguistics: Essays in Honor of Robert B. Kaplan* (pp. 153-164). Clevedon: Multilingual Matters.

Enghels, R. & Jansegers, M. (2013). On the cross-linguistic equivalence of *sentir(e)* in Romance languages: a contrastive study in semantics, *Linguistics* 51(5), 957-991.

Gast, V. (2015). On the use of translation corpora in contrastive linguistics. A case study of impersonalization in English and German, *Languages in Contrast*, 15(1), 4-33.

Gilquin, Gaëtanelle (2008). Causative Make and Faire: A Case of Mismatch. In M. Gómez González, J. L. Mackenzie & E. M. González Álvarez (Eds.), *Current Trends in Contrastive Linguistics: Functional and Cognitive Perspectives* (pp.177-201). Amsterdam: John Benjamins.

Granger, S. (2003). The corpus approach: a common way forward for Contrastive Linguistics and Translation Studies? In S. Granger, J. Lerot & S. Petch-Tyson (Eds.), *Corpus-based Approaches to Contrastive Linguistics and Translation Studies* (pp. 17-29). Amsterdam: Rodopi.

Granger, S. (2010). Comparable and translation corpora in cross-linguistic research. Design, analysis and applications, *Journal of Shanghai Jiaotong University*, 2, 14-21.

Granger, S., Lerot, J., & Petch-Tyson, S. (Eds.) (2003). *Corpus-based Approaches to Contrastive Linguistics and Translation Studies*. Amsterdam: Rodopi.

Gries, S. T. (2013). *Statistics for linguistics with R. A practical introduction*. Berlin: Mouton De Gruyter.

James, C. (1980). *Contrastive Analysis*. Harlow: Longman.

Jansegers, M. (2017). *Hacia un enfoque múltiple de la polisemia. Un estudio empírico del verbo multimodal 'sentir' desde una perspectiva sincrónica y diacrónica.* Berlin: Mouton De Gruyter.

Johansson, S. (1998). On the role of corpora in cross-linguistic research. In S. Johansson & S. Oksefjell (Eds.), *Corpora and Cross-linguistic Research. Theory, Method, and Case Studies* (pp. 3-24). Amsterdam: Rodopi.

Johansson, S. (2007). *Seeing through Multilingual Corpora. On the use of corpora in contrastive studies*. Amsterdam: John Benjamins.

Levshina, N. (2015). *How to do Linguistics with R. Data exploration and statistical analysis*. Amsterdam: John Benjamins.

Levshina, N. (2016). Verbs of letting in Germanic and Romance languages: A quantitative investigation based on a parallel corpus of film subtitles. *Languages in Contrast* 16(1): 84-117.

McEnery, T. & Xiao, R. (2008). Parallel and comparable corpora: what is happening? In G. Anderman & M. Rogers (Eds.), *Incorporating corpora. The Linguist and the Translator* (pp. 18-31). Clevedon: Multilingual Matters Ltd.

Mortier, L., & Degand, L. (2009). Adversative discourse markers in contrast. The need for a combined corpus approach, *International Journal of Corpus Linguistics*, 14(3), 301-329.

Schmied, J. (2008). Contrastive Corpus Studies. In A. Lüdeling & M. Kytö (Eds.), *Corpus Linguistics: An International Handbook* (pp. 1140-1159). Berlin: Mouton De Gruyter.

Vanderschueren, Clara (2010). The use of translations in linguistic argumentation. A case study on Spanish and Portuguese subordinate clauses introduced by *para*, *Languages in Contrast* 10(1), 76-101.

Viberg, Å. (2005). The lexical typological profile of Swedish mental verbs, *Languages in Contrast* 5(1), 121-157.

Wiechmann, D. (2011). Exploring probabilistic differences between genetically related languages, *Languages in* Contrast, 11(2), 193-215.

How universal are semantic frames?

Hans C. Boas
(The University of Texas at Austin)

The Berkeley FrameNet project (http://framenet.icsi.berkeley.edu), founded in 1997, organizes the lexicon of English by semantic frames (Fillmore 1982), with valence information derived from attested, manually annotated corpus examples (Fillmore and Baker 2010). The resulting FrameNet database contains more than one thousand frames, together with more than twelve thousand lexical unites and close to 200,000 annotated example sentences. FrameNet data have been used to answer a variety of empirical research questions on the mapping from semantics to syntax and they have been employed in a number of NLP tasks such as role labeling and text summarization. Since the early 2000s, several projects have re-used the semantic frames based on English for constructing FrameNets for other languages, most notably Spanish (Subirats 2009), Japanese (Ohara 2003), German (Burchhardt et al. 2009), and Swedish (Borin et al. 2013), among others. While the tools, corpora, and databases differ from each other, the main organizing principle, the semantic frame, used for structuring the lexicon remains similar across all the FrameNets for different languages.

The motivation for re-using semantic frames from English for other languages is the idea that frames are universal, similar to Fillmore's (1968) original case roles (Boas 2005). However, there has not yet been any empirical investigation into what constitutes "universal" frames or how one can possibly determine the universal status of semantic frames. This paper proposes a systematic method for identifying semantic frames that could be labeled "universal" (based only on data from languages under investigation). We specifically address the question of how semantic frames can be used for contrastive analysis.

Section 1 provides a brief introduction of the notion of semantic frame in the Berkeley FrameNet project. Section 2 discusses how semantic frames of English have been re-used for the analysis of lexicons of other languages, most notably Spanish, Japanese, German, and Swedish. Based on ideas proposed in Heid (1996), Fontenelle (1997), and Boas (2002), Section 3 then proposes systematic criteria that can be used to identify universal frames such as Motion, Communication, and Ingestion. Based on parallel corpus data we propose three sets of criteria: (1) translation equivalence; (2) valence equivalence; and (3) cultural equivalence. Section 4 shows how these criteria can be applied not only to frames that re-occur across languages, but also how they can be used to identify culture-specific frames that do not have equivalents in other languages, such as Personal Distance, Politeness, and Respect. Finally, Section 5 compares the "universal" semantic frames with the semantic primes of Wierzbicka's (2005) Natural Semantic Metalanguage, showing that semantic frames can in principle be applied to identifying components of "universal" meaning the same way that semantic primes can.

Comparing constructions and datasets: Contrastive negation in parallel and comparable corpora

Olli O. Silvennoinen
(University of Helsinki)

Contrastive negation (CN) refers to constructions that combine a negated element with a parallel affirmative one (McCawley 1991). At least in Europe, most if not all languages have several constructions that fall under this definition. For instance in English, examples include *shaken, not stirred*; *I don't like it, I love it*; and *not once but twice*. Unlike English, some languages have markers that are dedicated for constructions of CN (Anscombre & Ducrot 1977; Mauri 2009) but even they only seem to use the markers optionally. Consider (1)–(2), drawn from the ParTy corpus (Levshina 2016):

(1) *Moi,*   *c'est*   *pas*   *une*   *question de*   *digestion,*   *c'est*   *une question*   *de*
1sg.emph 3sg.n be.3sg neg   art.f question of digestion 3sg.n be.3sg art.f question of
souvenir.
memory
'For me, it is not a question of digestion, it is a question of memory.'

(2) *Ei*   *se*   *johdu*   *vatsasta*   *vaan*   *muistoista.*
neg.3sg it   be.caused.by.cng   stomach.ela   but   memory.pl.ela
'It is not caused by the stomach but memories.'

Example (1) is the French original; it employs a juxtaposition of two parallel clauses, one negative and the other affirmative. (2) is its Finnish subtitling, which uses the conjunction *vaan* 'but (corrective)', which is different from the standard affirmative conjunction *mutta* 'but (adversative)', unlike in languages like English and French, in which one conjunction handles both functions. However, Finnish also allows a construction similar to (1):

(3) *Ei*   *se*   *johdu vatsasta,*   *se*   *johtuu*   *muistoista.*
neg.3sg it   be.caused.by.cng stomach.ela   it   be.caused.by.3sg   memory.pl.ela
'It is not about the stomach, it is about memories.' (constructed)

Given that there are cross-linguistically valid construction types for CN and that these types are in competition even within single languages, it is natural to ask whether the patterns of variation are similar across languages. To do this, I investigate the use of CN in two cross-linguistic case studies, one using comparable corpora and the other a parallel corpus. The comparable corpora include casual conversation in English and Finnish (for English, the spoken BNC: Coleman et al. 2012; for Finnish, the Arkisyn corpus and the Conversation Analysis Archive of the University of Helsinki), while the parallel corpus comprises film subtitles in a number of European languages (the ParTy corpus: Levshina 2016). My descriptive aim is to find out the kinds of constructions used for CN and their distributions within and across languages. My methodological aim is to investigate data triangulation in contrastive linguistics; specifically, I explore the use of parallel and comparable corpora when studying a phenomenon that tends to be emergent rather than overtly coded (see Laury & Ono 2014).
Initial results suggest that languages with dedicated conjunctions use syndetic constructions more than languages that use a more general adversative conjunction: Finnish, for example, uses *vaan* more than English uses *but* for CN in conversation, English favouring the weakly constructionalised form similar to (1). Moreover, semantic factors affect construction choice, too; for instance, in scalar contrasts restrictive adverbs (e.g. *just*) may replace the conjunction. The parallel corpus data will shed light on whether these are general tendencies or idiosyncratic facts of the languages concerned.

References

Anscombre, Jean-Claude & Oswald Ducrot. 1977. Deux *mais* en français? *Lingua* 43(1). 23–40.

Arkisyn: A morphosyntactically coded database of conversational Finnish. Database compiled at the University of Turku, with material from the Conversation Analysis Archive at the University of Helsinki and the Syntax Archives at the University of Turku. Department of Finnish and Finno-Ugric Languages, University of Turku.

Coleman, John, Ladan Baghai-Ravary, John Pybus & Sergio Grau. 2012. Audio BNC: the audio edition of the Spoken British National Corpus. Phonetics Laboratory, University of Oxford. http://www.phon.ox.ac.uk/AudioBNC.

Conversation Analysis Archive. Database compiled at the Department of Finnish, Finno-Ugric and Nordic Studies, University of Helsinki.

Laury, Ritva & Tsuyoshi Ono. 2014. The limits of grammar: Clause combining in Finnish and Japanese conversation. *Pragmatics* 24(3). 561–592.

Levshina, Natalia. 2016. Verbs of letting in Germanic and Romance languages: A quantitative investigation based on a parallel corpus of film subtitles. *Languages in Contrast* 16(1). 84–117.

Mauri, Caterina. 2009. *Coordination Relations in the Languages of Europe and Beyond*. Berlin/New York: Mouton de Gruyter.

McCawley, James D. 1991. Contrastive Negation and Metalinguistic Negation. *CLS* 27(2). 189–206.

Is German more nominal than English? Evidence from a translation corpus

Stella Neumann

(RWTH Aachen University)

The claim that German has a more nominal character than English has been around for a considerable amount of time, but typically as an informal observation. Recent corpus studies have produced more systematic evidence, but this evidence is inconclusive. In an analysis of the distribution of word classes in the English-German CroCo Corpus, Steiner (2012) reports that, on the whole, German is more nominal than English. Moreover, he claims that English is more verbal than German. This latter finding suggests that the overall distribution of nouns and verbs differs in the two languages, since it is not very likely that the difference in the number of verbs is balanced out by other, less frequent word classes. By contrast, a corpus study of compound use in the same language pair comes to the conclusion that there is no general difference in nominal style between the two languages (Berg et al. 2012, 280). Both studies have methodological limitations: Steiner's (2012) counts are based on automatic part-of-speech tagging, which involves diverging tokenisation based on the contrastive differences in spelling noun-noun sequences. Furthermore, automatic tagging is subject to variable accuracy across registers. Berg et al. (2012) avoid these problems by manually analysing corpus data, but determine the appropriate sample size on the basis of word counts adjusted for the spelling differences. As a result, the balanced noun frequency could be due exactly to the fact that the sample size is adjusted at word level.

This paper aims at determining the extent of noun use in English and German while avoiding both types of problems. We analyse the distribution of normal nouns, but also include a detailed analysis of nominal compounding. We use 100 random sentences per register drawn independently of the word count, since this would be influenced by spelling differences. The sample is drawn from the above mentioned CroCo Corpus, a corpus containing originals and matching translations in eight comparable registers in the language pair (Hansen-Schirra et al. 2012). The existing part-of-speech tagging is analysed to assess the error rate of the automatic annotation of nouns. Since the CroCo Corpus includes alignment of matching translations, translation equivalents are used as a tertium comparationis (Johansson 2007) to analyse the contrastive nominal structures in more detail.

Preliminary results for one register (political essays) indicate that the overall number of nouns per sentence is higher in German both when adapting to the German and the English spelling system. If borne out across registers, the results will allow to corroborate the traditional assumption about the nominal character of German as well as Steiner's corpus-based claims to this end. The results can be used as a baseline for contrastive corpus studies to account for the distortion that spelling differences as well as register variation introduce into the analysis of noun frequencies. Beyond this, the study has

implications for understanding how languages conceptualise meaning in lexicogrammatically different ways.

References

Berg, Thomas, Sabine Helmer, Marion Neubauer, and Arne Lohmann. 2012. 'Determinants of the Extent of Compound Use: A Contrastive Analysis'. Linguistics 50 (2).

Hansen-Schirra, Silvia, Stella Neumann, and Erich Steiner. 2012. Cross-Linguistic Corpora for the Study of Translations - Insights from the Language Pair English-German. Berlin: de Gruyter Mouton.

Johansson, Stig. 2007. Seeing through Multilingual Corpora. Amsterdam: Benjamins.

Steiner, Erich. 2012. "A characterization of the resource based on shallow statistics." In Cross-linguistic corpora for the study of translations: Insights from the language pair English-German, Silvia Hansen-Schirra, Stella Neumann, and Erich Steiner, 71-89. Berlin: de Gruyter Mouton.

What is the gold standard in exploiting multilingual parallel corpora in CL? Answers from a contrastive corpus-based study of focusing modifiers used in the Swiss CSR reports written in German, French and Italian

Anna-Maria De Cesare

(University of Basel and University of Helsinki)

This paper addresses questions related to the best practice involved in analyzing data drawn from multilingual translation corpora to obtain results that are not distorted by the effects of translation, thereby using these corpora most efficiently for the purposes of contrastive linguistics (CL). Our main research question is the following: How can we effectively identify the differences and similarities (or equivalences) between languages by disentangling them from the translation effects commonly present in translated texts, even at a structural level (see De Cesare 2016 and De Cesare et al. 2016 on translation effects involved in the use of cleft sentences)? Our answer follows from a contrastive analysis of focusing modifiers (G. *auch* 'also, even'; Fr. *aussi/également*; It. *anche/pure*; see De Cesare 2015/Andorno & De Cesare under review), i.e. linguistic expressions that are situated at the crossroads of lexicon and grammar, used in texts drawn from Corporate Social Responsibility (CSR) reports written by companies based in Switzerland. The empirical data to be analyzed is chosen in light of the high quality of the translations involved, the underexplored text type it represents and its complexity (it features three languages, belonging to two genetic families: Romance and Germanic). On the basis of a self-assembled pilot translation corpus composed of datasets involving both original and translated texts (G. >Fr. / It.; Fr > G. / It.; It. > G. / Fr., of approximately 100'000 words each), we show that a thorough answer to our research question involves several analytical steps. We ought to compare data from original texts, from original and translated texts and take into account the direction of translation, i.e. look for correspondences starting from both the source and the target text (Johansson 2007: 23-25). We also propose a new form of calculating cross-linguistic correspondences based on Altenberg's (1999: 254) *mutual correspondence*.

References

Altenberg, Bengt. 1999. "Adverbial connectors in English and Swedish: Semantic and lexical correspondences". In H. Hasselgård & S. Oksefjell (eds.), *Out of Corpora: Studies in Honour of Stig Johansson*. Amsterdam & Atlanta, GA: Rodopi, 249-268.

Andorno, Cecilia Maria & Anna-Maria De Cesare. Under review. "Mapping additivity through translation. From French *aussi* to Italian *anche* and back in the Europarl-direct corpus". In A.-M. De Cesare & C. M. Andorno (eds.). *Focus on Additivity. Multifaceted Views on Focusing Modifiers*. Amsterdam-Philadelphia: Benjamins, pp. 37.

De Cesare, Anna-Maria. 2015. "Defining *Focusing Modifiers* in a cross-linguistic perspective. A discussion based on English, German, French and Italian". In K. Pittner, D. Elsner & F. Barteld (eds.), *Adverbs – Functional and Diachronic Aspects*. Amsterdam-Philadelphia: Benjamins, 47-81.

De Cesare, Anna-Maria. 2016. "Les phrases clivées de l'italien en contact avec le français. Une analyse basée sur les textes diffusés sur le portail swissinfo.ch". In C. Ossenkop & G. Veldre-Gerner (eds.), *Zwischen den Texten: die Übersetzung an der Schnittstelle von Sprach- und Kulturwissenschaft* [*Romanische Sprachen und ihre Didaktik* 57], 121-136.

De Cesare, Anna-Maria & Davide Garassino / Rocío Agar Marco / Ana Albom / Doriana Cimmino. 2016. *Sintassi marcata dell'italiano dell'uso medio in prospettiva contrastiva con il francese, lo spagnolo, il tedesco e l'inglese. Uno studio basato sulla scrittura dei quotidiani online*. Frankfurt am Main, Lang.

Johansson, Stig. 2007. *Seeing through Multilingual Corpora. On the Use of Corpora in Contrastive Studies*. Amsterdam-Philadelphia: Benjamins.

T/V forms in European languages: A quantitative study based on a parallel corpus of film subtitles

Natalia Levshina

(Leipzig University)

Aims

This study contributes to a quantitative corpus-based typology of European terms of address. It compares the use of T/Vforms (e.g. French *tu* and *vous*, German *du* and *Sie*, Russian *ty* and *vy*, and the corresponding finite verb forms) in twenty European languages from the Indo-European and Finno-Ugric families, focusing on the social and communicative parameters that influence the choice between these forms in every language. These parameters represent an elusive object of investigation because the communicative situations where one or the other form can be used are difficult to compare cross-culturally. Film subtitles in different languages offer a convenient solution of this problem because the situations of communication between film characters can serve as convenient comparative concepts (Haspelmath 2010) and represent diverse social relationships.

Data and method

To compare the constraints, I first identify approximately 300 contexts where the pronoun *you* is used to refer to one person in the English version of the online user-made subtitles of ten films which represent different genres. Next, I identify the personal pronouns used in the translations. I also code the relationships between the Speaker and the Hearer (age, social status, level of familiarity, etc.) based on an in-depth contextual analysis of multimodal evidence from the films. These variables are informed by previous research (e.g. Brown & Gilman 1960, Kretzenbacher et al. 2006, Warren 2006),

in particular, by the concepts of power and solidarity. I perform a series of multivariate analyses using the methods of conditional inference trees and random forests, which are particularly well suited in the situations when one has a large number of intercorrelated predictors. The purpose of these analyses is to determine which variables play a role in the choice between T/V forms in each language. Figure 1 shows an illustration based on a subset of the Swedish data. It reveals, in particular, that the variables *Before68* (i.e. whether the interaction presumably takes place before or after 1968) and *Rel_Class* (i.e. whether the Hearer has a higher, lower or equal social status than the Speaker) play a statistically significant role in the choice between the Swedish 2nd person forms with the pronouns *du* (informal) and *ni* (formal). These results are in line with the history of development of the Swedish politeness system, in particular, with the *du-reformen* in the late 1960s-early 1970s.

Preliminary results

The preliminary results demonstrate that the dimension of solidarity is the most important cross-linguistically, as prevoiously claimed by Brown & Gilman (1960), although asymmetric power relationships play a significant role in all languages, as well. One can also find substantial cross-linguistic variation with regard to some individual communicative parameters. For example, while the Hearer's age is important in many languages (e.g. French, German, Greek, Russian and Spanish), the location where the communication takes place (i.e. in an office or another place) seems to matter only in the German translations.
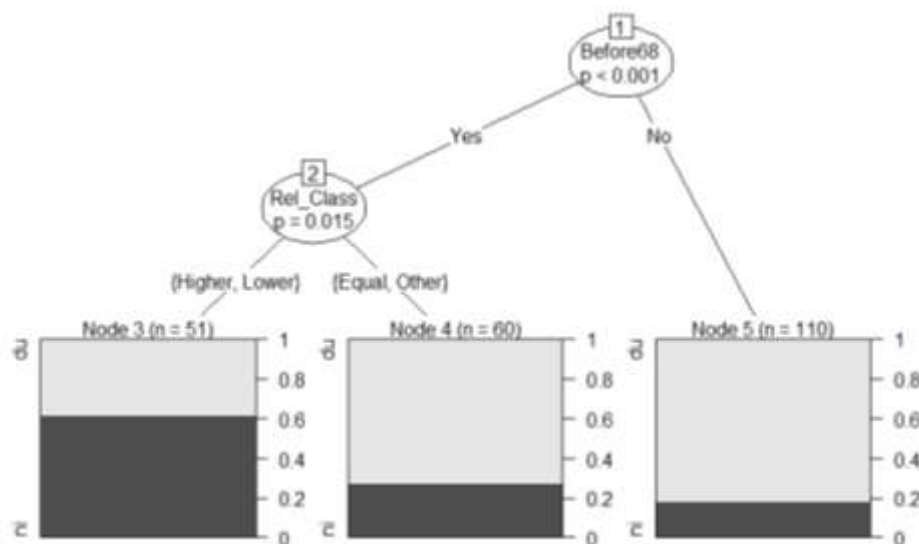
Figure 1. A conditional inference tree based on a subset of the Swedish data.

References

Brown, Roger and Albert Gilman. 1960. The pronouns of power and solidarity. In T. A. Sebeok. *Style in Language*, 253–276. Cambridge, MA: MIT Press.

Haspelmath, Martin. 2010. Comparative concepts and descriptive categories in crosslinguistic studies. *Language* 86 (3). 663–687.

Kretzenbacher, Heinz L., Michael Clyne and Doris Schüpbach. 2006. Pronominal address in German: Rules, anarchy and embarrassment potential. *Australian Review of Applied Linguistics* 29(2). 17.1-17.8.

Warren, Jane. 2006. Address pronouns in French: Variation within and outside the workplace. *Australian Review of Applied Linguistics* 29(2). 16.1-16.17.

On the usefulness of parallel corpora for contrastive linguistics. A multivariate corpus study of meaning shifts in the semantic field of inchoativity

Pauline De Baets, Lore Vandevoorde, & Gert De Sutter

(Ghent University)

This study wants to explore to what extent parallel corpora are apt to be used in contrastive linguistic research. Under the assumption of semantic stability in the translational process – translators are thought to transfer the meaning of the source text– contrastive researchers often use parallel corpora (i.e. corpora containing source texts and their translations) to study similarities and differences in system and usage on all kinds of linguistic levels [1], [2], [3], [4]. Contrastive linguists (like [5]) already drew attention to the potential impact of the translational process on formal characteristics of translated texts (e.g. in terms of normalization and shining through [6] – thereby reducing the representativeness of translations for the language under study, but the question whether translation impacts on the meaning of target-text words and constructions has rarely been asked.

If it can be shown that the translational process causes (subtle) semantic shifts in the target language, this would undermine one of the core assumptions in using parallel corpora in contrastive linguistics, namely the assumption that there is a perfect semantic equivalence between source texts in language A and target texts in language B.

Therefore, in this study we want to investigate the impact of source texts in a given language on the meaning of target-text words and constructions. To do so, we will focus on the meaning structure of 5 Dutch lexemes in the semantic field of inchoativity ("beginnen", "starten", "van start gaan", "opstarten" and "aanvatten"). More particularly, the meaning structure of these lexemes in a parallel corpus of English-to-Dutch translations will be compared to that in a comparable corpus of authentic Dutch texts. Both corpora are included in the Dutch Parallel Corpus [7], a 10-million-word corpus of Dutch, French and English, consisting of different genres. The selection of the lexemes was done by means of the semantic mirroring procedure [8] and after these lexemes were extracted from the corpus, the behavioral-profile method was adopted [9], [10]. This usage-based method is based on the *distributional semantics* idea, i.e. one can grasp the meaning of a word by looking at its (linguistic) context, and can be used to measure semantic differences between closely related words (the more similar the linguistic context is, the more semantically similar two words are). In particular, we annotated the linguistic context of each retrieved lexeme for a variety of so-called ID-tags, such as animacy and concreteness of the subject and object, mode of the verb, object type, semantic category of the modified verb, presence of a modifying verb,… These ID-tags, taken together, represent the syntactic and semantic architecture of each individual lexeme, which consequently enables us – by means of various multivariate statistical techniques (such as correspondence analysis, cluster analysis and classification trees) - to find out in which respects each lexeme is unique and whether the architecture of each lexeme remains stable when it is based on translational data (parallel corpus) compared to authentic data (comparable corpus). The results indeed show that meaning shifts take place during translation, i.e. translation affects the semantic characteristics of words (and constructions). As a consequence, we would advise contrastive linguists to always compare their research findings retrieved from a parallel corpus to the results in a comparable corpus.

References

[1] Altenberg, B., & Granger, S. (Eds.). (2002). *Lexis in contrast: corpus-based approaches* (Vol. 7). John Benjamins Publishing.

[2] Granger, S. (2003). The corpus approach: a common way forward for Contrastive Linguistics and Translation Studies. *Corpus-based approaches to contrastive linguistics and translation studies*, 17-29.

[3] Ebeling, J., Ebeling, S. O., & Hasselgård, H. (2013). Using recurrent wordcombinations to explore cross-linguistic differences. *Advances in Corpus-Based Contrastive Linguistics: Studies in Honour of Stig Johansson*, *54*, 177.

[4] Viberg, Å. (2012). Language-specific meanings in contrast: A corpus-based contrastive study of Swedish få 'get'.

[5] Johansson, S. (2007). *Seeing through Multilingual Corpora: On the use of corpora in contrastive studies* (Vol. 26). John Benjamins Publishing.

[6] Vandepitte, S., & De Sutter, G. (2013). Contrastive Linguistics and Translation Studies. *Handbook of Translation Studies*, *4*, 36.

[7] Macken, L., De Clercq, O., & Paulussen, H. (2011). "Dutch Parallel Corpus: A Balanced Copyright-Cleared Parallel Corpus." *Meta 56 (2)*.

[8] Vandevoorde, L., De Sutter, G., and Plevoets, K. (2016). "On Semantic Differences between Translated and Non-Translated Dutch. Using Bidirectional Parallel Corpus Data for Measuring and Visualizing Distances between Lexemes in the Semantic Field of Inceptiveness." *Empirical Translation Studies. Interdisciplinary Methodologies Explored*, 128–46.

[9] Gries, S. T., & Divjak, D. (2009). Behavioral profiles: a corpus-based approach to cognitive semantic analysis. New directions in cognitive linguistics, 57–75.

[10] Szymor, N. (2015). Behavioral Profiling in Translation Studies. *trans-kom*, *8*(2), 483–498.

Interpreting data, how suited are they for contrastive linguistics?

Bart Defrancq & Camille Collard
(Ghent University)

There is a long tradition, starting with the Scandinavian approaches to contrastive linguistics, to use translation data in contrastive research. Methodologically, it makes sense for a contrastive linguist to use parallel corpora; after all, it is a way to partially escape the observer's paradox: assuming translators ensure semantic equivalence between source and target texts, researchers can outsource the difficult task of determining a *tertium comparationis* to them. Paradoxically, as the interest in parallel corpora for contrastive research grew, corpus-based translation studies steered away from parallel corpora, focusing more on comparable corpora of translation and non-translated language (Baker 1993). Corpus-based interpreting studies has followed its sister discipline along this line: comparable research predominates (Russo et al. 2006; Kajzer-Wietrzny 2012), with a special interest for the comparison of translated and interpreted data (Bernardini et al. 2016).

In this paper, we intend to investigate to what extent interpreted corpus data can be used in contrastive research. Contrastive research based on parallel corpus data focusses exclusively on written data, i.e. translated data, limiting its usefulness in language pedagogy, in the development of language resources and severely restricting its potential for generalisations on language contrasts. Including interpreted data in contrastive research has the potential of overcoming these limitations. On the other hand, interpreted data come with a number of risks: like translation data, they are likely to

possess particular features setting them apart from non-mediated language use (also referred to as translationese (Gellerstam 1986) or translation universals (Baker 1993)). In addition and unlike translation data, interpreting data are likely to show particular patterns originating from the intense cognitive load involved with the interpreting process (Seeber 2011).

To test the reliability of interpreting data in the context of contrastive linguistic analysis of spoken language, we have applied a much used contrastive methodology, namely semantic mirroring (Dyvik 2004) to data collected in the framework of EPICG (*European Parliament Interpreting Corpus Ghent*). EPICG is a collection of currently around 290,000 tokens of source speech and interpreting in English, French and Dutch. Due to the small size of the corpus we have applied the semantic mirror technique to a list of reasonably frequent verbs, which, for reasons of comparability, had already been studied based on translation data (inchoative *beginnen-commencer-begin* (Vandevoorde 2015); motion verbs (Cappelle 2012)). The results of these case studies were triangulated with corpora of non-mediated spoken data, such as the *Corpus Gesproken Nederlands*, *Valibel* and the spoken section of the BNC, in order to find out whether interpreting data provide similar mirroring results as translation data and whether potential differences are due to the modal divide between spoken and written data or whether other factors, such as time constraints, cognitive load, etc. impact interpreting data to the point that they can no longer be deemed reliable for contrastive analysis.

The results of the study show, first of all, that the semantic profiles in translation and interpreting are fairly different. We will discuss whether the differences should be interpreted in terms of the written-spoken distinction or in terms of an even more outspoken tendency towards the production *translationese* in interpreted data, as suggested by Shlesinger and Ordan (2012).

References

Baker, M. (1993). 'Corpus linguistics and translation studies: Implications and applications.' In M. Baker, G. Francis & E. Tognini-Bonelli (eds.) *Text and Technology: In Honour of John Sinclair*. Philadelphia: John Benjamins, pp. 233–250.

Bernardini, S., A. Ferraresi & M. Milicevic (2016). 'From EPIC to EPTIC. Exploring simplification in interpreting and translation from an intermodal perspective'. *Target*, 28(1), pp. 61-86.

Cappelle, B. (2012). 'English is less rich in manner-of-motion verbs when translated from French'. *Across Languages and Cultures,*13(2), pp. 173-195.

Dyvik, H. (2004). 'Translations as semantic mirrors from parallel corpus to Wordnet'. In K. Aijmer & B. Altenberg (eds.) Advances in Corpus *Linguistics*. Amsterdam & New York: Rodopi, pp. 311-326.

Gellerstam, M. (1986). 'Translationese in Swedish novels translated from English'. In L. Wollin & H. Lindquist (eds.) *Translation Studies in Scandinavia*. Lund: CWK Gleerup, pp 88–95.

Kajzer-Wietrzny, Marta. (2012). *Interpreting Universals and Interpreting Style*. PhD University of Poznan.

Russo, M., C. Bendazzoli & A. Sandrelli (2006). 'Looking for lexical patterns in a trilingual corpus of source and interpreted speeches. *FORUM*, 4(1), pp. 221-254.

Seeber, Kilian. (2011). 'Cognitive load in simultaneous interpreting: Existing theories – new models.' *Interpreting* 13 (2), pp. 176–204.

Shlesinger, M. & N. Ordan (2012). 'More *spoken* or more *translated*. Exploring a known unknown of simultaneous interpreting'. *Meta*, 24(1), pp. 43-60.

Vandevoorde, L. (2016). *On Semantic Differences : A Multivariate Corpus-based Study of the Semantic Field of Inchoativity in Translated and Non-Translated Dutch*. Ghent: PhD.

Exploring semantic similarity between three Romance languages: A Behavioral Profile study of cross-linguistic near-synonyms

Marlies Jansegers, Stefan Th. Gries, & Viola G. Miglio

(Ghent University, University of California, Santa Barbara, & University of California, Santa Barbara)

Although much of the revival of Contrastive Linguistics in the 1990s is due to its meeting with corpus linguistics, cross-fertilization between both disciplines is still rather limited: as Gast (2015: 6) states "the methodological branch of corpus-based contrastive linguistics is still tender". The present paper makes a methodological contribution to contrastive linguistics by using the corpus method of Behavioral Profiles (BP) (see Gries & Divjak 2009, Gries 2010) to explore the degree and the nature of cross-linguistic near-synonymy of the verbs *sentir(e)* in three Romance languages, Spanish, French, and Italian. Specifically, we are following up on Enghels & Jansegers (2013), a study of the semantics of the cognate verbs *sentir(e)* in the three languages combining parallel and comparable corpora. From a comparable corpus, we generated and annotated pseudo-randomly sampled concordance lines of *sentir(e)* in all three languages as well as its two most frequent translations across languages extracted from a parallel corpus for a large variety of morphosyntactic and semantic features (500 examples each); from those we generated BP-vectors characterizing the distributions of features across *sentir(e)* and its synonyms / translational equivalents to explore how and how much

- the verbs' senses overlap within and between languages;
- the verbs' distributional characteristics overlap within and between languages;
- the semantic differences within and between verbs and languages correlate with different syntactic patterns.

These questions are addressed applying Gries & Divjak's (2009) approach, in which distributional frequencies (i.e., percentages) of verbs within and across languages are compared to each other by computing pairwise differences between features; in an attempt to add to the toolbox of contrastive linguistics, we also extend their method for better visualization using dotcharts that help to highlight significant differences of the annotated features between senses and verbs.

Based on an initial pilot study, one of the expected results is that the level of correspondence between the three languages will vary according to whether semantic vs. syntactic variables are taken into account. From a semantic point of view, the rich polysemy of the verb in the three languages only partially coincides and it turns out that each verb has undergone some semantic specializations: *sentire*$_{it}$ seems to display a rather different profile whereas *sentir*$_{SP}$ and *sentir*$_{fr}$ seem to match up more frequently with each other. From a syntactic point of view, however, *sentir*$_{fr}$ seems to be more distant from its cognates. Indeed, the French verb has largely developed the more abstract, cognitive sense of the verb which allows the verb to enter in a large variety of more complex syntactic constructions.

References

Enghels, Renata and Jansegers, Marlies, *On the cross-linguistic equivalence of sentir(e) in Romance languages. A contrastive study in semantics*, Linguistics 51 (2013), 957-991 .

Gast, V. (2015). On the use of translation corpora in contrastive linguistics. A case study of impersonalization in English and German, *Languages in Contrast*, 15(1), 4-33.

Gries, S.T., & Divjak, D. (2009). Behavioral profiles: A corpus-based approach to cognitive semantic analysis. In V. Evans & S. Pourcel (Eds.), *New directions in cognitive linguistics* (pp. 57-75). Amsterdam: John Benjamins.

Gries, S.T. (2010). Behavioral profiles: A fine-grained and quantitative approach in corpus-based lexical semantics. *The Mental Lexicon*, 5(3), 323-346.

Productivity of semi-copular constructions in a cross-linguistic perspective

Niek Van Wettere
(Ghent University)

This talk aims to study the productivity of copular micro-constructions involving Dutch and French change-of-state (semi-)copular verbs (i.e. verbs that signify 'become'), more specifically those originating from verbs which typically express physical motion (e.g. *(ge)raken, komen, tomber, tourner, virer, passer…*). For example :

-   *tomber* ('to fall', French) : *Il tombe amoureux*. ('He falls in love.')
-   *virer* ('to turn', French) : *Killy a viré intellectuelle*. (lit. 'Killy has turned intellectual.')
-   *vallen* ('to fall', Dutch) : *Hij valt ziek*. ('He falls ill.')
-   *(ge)raken* ('to attain', Dutch) : *Ze (ge)raakte zwanger*. (lit. 'She attained/reached pregnant.')
-   *komen* ('to come', Dutch) : *Ik kom helemaal zot*. (lit. 'I come completely crazy.')
-   …

Semi-copulas are verbs which share only part of the properties of semantically empty, full-fledged copular verbs, such as *to be*. As semi-copular micro-constructions are characterized by several types of constraints on their subject complement slot, they constitute an ideal 'testing ground' for issues related to productivity.

Both the French and Dutch data were collected from *Sketch Engine* (*TenTen Corpus*), which guarantees a valid cross-linguistic comparison within the same type of (web) data. Concretely, a lexical search for each verb was performed, after which the data were cleaned up to 400 relevant attestations per verb (if possible). This yields a final dataset of 5689 observations for a total of 15 different verbs.

The 'Productivity Complex' of the (semi-)copular micro-constructions (with regard to the subject complement slot) will be assessed through various diagnostics, such as the well-known productivity measures developed by Baayen (and applied to argument structure constructions by Zeldes 2012), as well as more advanced methods, such as *Vocabulary Growth Curves* and *LNRE*-models.

Moreover, a *Principal Component Analysis* of the different (correlated) productivity measures will reduce these measures to only a limited set of principal dimensions of variation. In this way, productivity measures which basically contain the same information can be detected and important differences/similarities between the (semi-)copular micro-constructions can be concisely visualized in a low-dimensional solution.

Ultimately, this in-depth analysis will enable us :

1) to assess the application of these measures to (a specific type of) syntactic constructions and to establish their interrelations
2) to examine the degree of productivity of the subject complement slot of the different (semi-)copular micro-constructions, also taking into account possible categorical differences (i.e. adjectival vs. nominal vs. prepositional subject complements)
3) and to compare contrastively the Dutch and French semi-copular systems as a whole with respect to their productivity

References

Baayen, Harald. "On Frequency, Transparency and Productivity." In *Yearbook of Morphology 1992*, edited by Geert Booij and Jaap van Marle, 181–208. Dordrecht: Springer Netherlands, 1993.

Baayen, Harald, and Rochelle Lieber. "Productivity and English Derivation: A Corpus-Based Study." *Linguistics* 29, no. 5 (1991).

Desagulier, Guillaume. "A Lesson from Associative Learning: Asymmetry and Productivity in Multiple-Slot Constructions." *Corpus Linguistics and Linguistic Theory* 12, no. 2 (2016).

Zeldes, Amir. *Productivity in Argument Selection From Morphology to Syntax.* Berlin: De Gruyter Mouton, 2012.

Zeschel, Arne. *Incipient Productivity: A Construction-Based Approach to Linguistic Creativity.* Cognitive Linguistics Research 49. Berlin: De Gruyter Mouton, 2012.

Slavic motion verbs in contrast: A view from parallel texts

Ruprecht von Waldenfels
(University of Oslo)

Slavic motion verbs are still often taken to follow the prototype of Russian in having (a) satellite-framed, manner-heavy motion verbs (such as Russian *vo-jti* 'go in', *v-letet'* 'fly in') rather than path-heavy motion verbs such as engl. to enter, and (b) not possessing deictic motion verbs such as engl. 'come', or French 'venire' that explicitly involve the viewpoint of the speech act participants. However, research of the past years has shown that Slavic is much more heterogenous. Most importantly, Bulgarian has largely become a *verb*-framed, path-intensive language (Speed, 2015), and both BCS and Bulgarian have developed deictic motion verbs (Ricca, 1993; Filipović, 2007), thus coming close to the Romance prototype.

This paper uses ParaSol (Waldenfels 2011, www.parasolcorpus.org), a parallel corpus of Slavic and other languages, to compare Slavic motion verbs in a bottom-up fashion to each other and to other European languages. The paper shows that such an approach to using translation corpora in an automated, data driven approach can yield new insights for contrastive linguistics and typology.

The first difference is one concerning derivational morphology: Parallel and diachronic corpus data reveal a morphological shift of the primary prefix denoting movement to a landmark. While the East and West Slavic languages as well as the South Slavic language Slovenian has retained the original Common Slavic prefix *pri- 'to' in this function, the South Slavic Bulgarian, Macedonian and Bosnian-/Croatian/Serbian have shifted to use cognates of Common Slavic *do 'up to', as shown in example (1) from Rowlings' *Harry Potter*:

(1)	ru	Ego	***pri*vezet**	Ogrid.		
		Hím.ACC	PRI.bring.3SG	Hagrid.NOM		
	cz	**Přiveze** ho Hagrid.		sl	Hagrid ga bo **prinesel**.	
	hr	Hagrid će ga **donijeti**.				
	mk	Chagrid e go **donese**.		bg	Chagrid šče go **donese**.	

'Hagrid's bringing him.' (Rowling, Engl. original)

This change largely coincides with a functional shift: in North Slavic, these verbs are primarily goal-orientied, not deictic (Grenoble, 1991), in Balkan Slavic, they are clearly deictic and denote – to different degrees – movement to the speaker/hearer. This leads to contrasts as the following, where the Bulgarian and Macedonian translations cannot use DO-verbs without change in meaning.

(2)   ru   Tomaš   **prišel**   tuda   posle   raboty […]
                  Tomaš.NOM PRI-went there   after work.G   […]
        uk   Tomaš **prijšov** tudi pslja roboti […]
        pl   Tomasz **przyszedł** do niej po pracy […]
        cz   Tomáš za ní **přišel** po pracovní době […]
        hr   Tomáš je **došao** poslije radnog vremena […]
        mk   Tomaš **otide** ka nea po rabotnoto vreme […]
        bg   Tomaš **otide** tam sled kraja na rabotnoto si vreme […]
        'Thomas went/came to her after work' (Kundera, Czech original)

Aggregate views of the similarity of use of COME-verbs in terms of their distribution in different parallel texts using ParaViz (von Waldenfels, 2015) show that the Slavic languages cluster in different groups:

Most
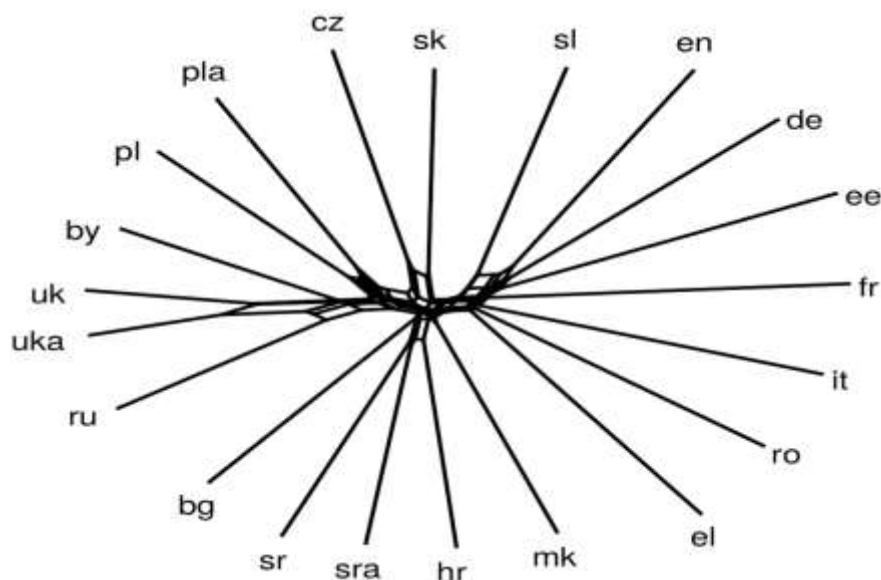
conspicuously, here and in other texts, Slovenian *priti* clusters closely with German. Closer inspection shows that this is due to lexical idiosyncrasies that are typical of German (Di Meola, 2003), cf. the next example from a Russian original where out of 30 different translations, only Slovenian and German use a COME-verb for Russian *perejti* 'cross, lit. walk over':

(3)   ru   Kogda perejdeš'   potok
             When   cross.2SG   stream.ACC
        sl   Ko   prideš   čez   potok
             When   come.2SG   across stream
        de   Wenn du   über   den   Fluß   kommst
             When you   across the   River   come.2SG ...
        'When you cross the stream'

Massively parallel corpora with many language, we argue, are especially helpful in uncovering such cases of lexical convergence and polysemy copying which are otherwise difficult to capture in top-down approaches such as monolingual corpora or questionnaires and which can be crucial for an understanding of the relationships between the linguistic systems.

References

Di Meola C (2003) Non-deictic uses of the deictic motion verbs 'kommen' and 'gehen' in German. In: Lenz F (ed) Deictic Conceptualisation of Space, Time and Person., Benjamins, Amsterdam/Philadelphia, pp 41–67

Filipović L (2007) Talking about motion. A crosslinguistic investigation of lexicalization patterns. John Benjamins

Grenoble LA (1991) Deixis, point of view, and the prefixes po- and pri- in Russian. Die Welt der Slaven XXXVI(1): 254–270

Ricca D (1993) I verbi deittici di movimento in Europa: una ricerca interlinguistica

Speed T (2015) Manner/path typology of Bulgarian motion verbs. Journal of Slavic Linguistics 23(1):51–82

von Waldenfels R (2011) Recent developments in ParaSol: Breadth for depth and XSLT based web concordancing with CWB. In: Daniela M., and Garabík, R. (eds.), Natural Language Processing, Multilinguality. Proceedings of Slovko 2011, Modra, Slovakia, 20–21 October 2011. Bratislava, 156-162

von Waldenfels R (2015) The paraviz tool: Exploring cross-linguistic differences in functional domains based on a parallel corpus. In: Grigonytė G, Clematide S, Utka A, Volk M (eds) Proceedings of the Workshop on Innovative Corpus Query and Visualization Tools at NODALIDA 2015, May 11–13, 2015, Vilnius, Lithuania.

Whatever / wat (dan) ook / was (auch) immer: A Corpus-Triangulating Approach to Irrelevance Particles in English, Dutch and German

Tom Bossuyt & Torsten Leuschner

(Ghent University)

This contribution is concerned with irrelevance particles, a type of quantificational particle in so-called "universal concessive conditionals" (UCCs; cf. inter alia König 1986, Breindl 2014):

(1)   a.   *Whatever* he says, nobody is interested.
        b.   *Wat* hij *ook* zegt, het interesseert niemand.
        c.   *Was immer* er *auch* sagt, es interessiert keinen.

Our purpose is to present and discuss on-going contrastive research into the frequencies, distributional patterns and motivations of irrelevance particles in English, Dutch and German, focusing on the w-words for 'what' and 'who'. The data come from the *ConVerGENTiecorpus* (a new comparable corpus recently compiled at Ghent University) in comparison with data from larger, but less comparable corpora like the English *BYU Corpora*, the Dutch *Sonar Corpus* and the German *Deutsches Referenzkorpus* (*DeReKo*). This triangulating approach allows us to benefit from the large-scale distributional patterns revealed by big, language-specific corpora in conjunction with the less reliable,

but comparable data from smaller, multilingual corpora like the *ConVerGENTiecorpus*. This approach may also be beneficial for other corpus studies in contrastive linguistics on several different topics.

Based on our data, we will be arguing that irrelevance marking in German and perhaps marginally in Dutch, but not in English, displays an evolutionary dynamic driven by the joint presence of several independent particles. In German, this dynamic is characterised by the contrasting specialisation of the two particles for different positions in the clause (*immer* on the left near the W-pronoun, *auch* on the right near the verb). While there is no parallel dynamic (yet) in Dutch, the adverb *allemaal* ('all') has quantificational semantics that make it suitable for potential recruitment as an irrelevance marker. Early results suggest that *allemaal* does indeed tend to occur in UCCs alongside *ook* as seen in (3), and could in future be reanalysed as a new irrelevance particle:

(3)   Meid, je bent beter dan dat. Wat hij ook *allemaal* zegt, hij doet je pijn.
         'Girl, you're better than that. Whatever he *all* says, he hurts you.'

Corpus-based results of this part of the investigation are pending and will be presented in light of the grammaticalisation path in (4) leading from lexical adverb to irrelevance particle. While *-ever* has travelled fully down the cline unencumbered by any competitor like *auch/ook*, and *immer* is well underway, *allemaal* may just be setting off:

(4)   lexical adverb   ►irrelevance particle
                                                                                        ever

                                                                       immer

              allemaal

Finally, we will compare irrelevance marking in UCCs with secondary uses of w-word + particle combinations as in (5). These derive historically from primary UCCs as in (1) through ellipsis:

(5)   a.   They cooked us some spaghetti, penne, or *whatever*.
         b.   *Hoe dan ook*, één keer per week vegetarisch eten doet niemand kwaad.
         b.   So etwas darfst du nicht einfach *wem auch immer* weitererzählen!

As our corpus-data show, the construction types in (5) are overwhelmingly marked by particle combinations, not only in German (*auch immer*) but also in Dutch, where *dan* 'then' is recruited for this purpose to occur alongside *ook*, and that grammaticalisation is in progress leading respectively to the emergence of general extenders (a.), discourse markers (b.) and indefinite pronouns (c.).

References

Breindl, Eva (2014): "Irrelevanzkonditionale Konnektoren." In: Breindl, Eva/Volodina, Anna/ Waßner, Ulrich (eds.): *Handbuch der deutschen Konnektoren. Band 2: Semantik der deutschen Satzverknüpfer*. Berlin/Munich/Boston: de Gruyter, 965-1009.

König, Ekkehard (1986): "Conditionals, concessive conditionals and concessives: areas of contrast, overlap and neutralization." In: Traugott, Elizabeth C. et al. (eds.): *On conditionals*. Cambridge: C.U.P., 229-246.

Contrastive analysis of discourse constructions using comparable corpora : a case study across French and English

Diana Lewis

(Aix Marseille University and Lerma Research Centre)

This study focuses on the use of comparable corpora in the contrastive analysis of discourse-level features across two languages. One approach to finding a workable tertium comparationis for comparable-corpus building is comparability of context of production, i.e. the social function of discourse, captured in the notion of genre. The study makes use of a European French - British English comparable corpus of political discourse containing a sub-corpus of formal, written-to-be-spoken political speeches and a sub-corpus of unscripted, semi-formal spoken interviews with politicians and with experts on political topics.

The aim is to identify similarities and differences in the patterns of discourse marking across the two languages and the two sub-genres. Previous contrastive research has variously claimed greater density of discourse-marking in French (e.g.. Fetzer & Johansson 2010 on causatives) or in English (e.g. Gallagher 1995 on adversatives; Mason 2001).

The cross-linguistic comparability of the texts is briefly discussed, followed by a case study of genre differences in the use of additive 'discourse constructions'. A discourse construction is a conventional or semi-conventional structure at discourse level consisting of two or more discourse segments linked by coherence relations. The study adopts an approach to coherence relations which does not assume taxonomies of relations, but rather posits a universal coherence space differently configured in different languages and genres.

Additive discourse markers and their contexts (the constructions they occur in) are examined using concordance data extracted from the corpus. For both speeches and interviews, the French data displays more explicit marking of relations and greater diversity of discourse markers, several of which are highly bleached, suggesting incipient grammaticalization of certain discourse constructions. Both English and French show differences between speeches and interviews, in that different discourse marking patterns predominate in each genre. But this difference is somewhat greater for French, so that the French and English speeches appear to be more differently patterned than the French and English interviews. Overall, it is argued that comparable corpora, as opposed to translation corpora, are particularly suited to discourse-level contrastive studies and to elucidating genre differences that may reflect different textual functions, despite apparently comparable contexts of text production, as well as different linguistic conventions.

References

Fetzer, Anita and Marjut Johansson. 2010. Cognitive verbs in context. In Stefania Marzo, Kris Heylen and Gert De Sutter (eds.) *Corpus Studies in Contrastive Linguistics,* special issue of the *International Journal of Corpus Linguistics* 15(2): 240–266.

Gallagher, John D. 1995. L'effacement des connecteurs adversatifs et concessifs en français moderne. In Michel Ballard (ed.) *Relations discursives et traduction*, 201-220. Lille: Presses Universitaires de Lille.

Mason, Ian. 2001. Translator behaviour and language usage: Some constraints on contrastive studies. *Hermes* 26: 65-80.

Cutting, breaking, creating and repairing in Swedish and English

Åke Viberg

(Uppsala University)

This presentation will deal with verbs of Cutting and Breaking(C&B) and their relationship to verbs of destruction, creation and repair in Swedish and English. C&B verbs have been studied in a number of typologically diverse languages in Majid & Bowerman (2007). That study was based on descriptions of C&B events elicited with video clips, which is a good method to ensure comparability across languages. The perspective is basically onomasiological (or world-to-word). For languages, where corpora are available, it is possible to collect a large number of examples of words from a semasiological (or word-to-world) perspective. This approach makes it possible to study how the use to describe C&B events is related to the complete meaning potential of a word. The present study is based on all occurrences of basic English C&B words and their Swedish equivalents in the English Swedish Parallel Corpus (ESPC). For some words, complementary data have been collected from monolingual corpora (BYU-BNC and KORP). Swedish C&B words have been studied in Viberg (1985, 2007). Data from the ESPC show that the most frequent translation equivalent of *break* is *bryta* 'break by bending', if all uses are included. However, in the majority of cases the verbs refer to non-literal uses ('break a promise/ the law' etc.). If only uses where *break* refers to separation/destruction are included, the most frequent translation is the particle *sönder* in combination with a verb. Often a verb with very general meaning is used: *ha* 'have', *göra* 'do=make' (*ta* 'take'). The verb *slå* 'hit' is also frequently used with a generalized meaning and often refers to accidental breaking. *Peter slog sönder koppen* 'Peter broke the cup' (can be used even if Peter happened to drop the cup unintentionally). *Gå* 'go' is the major option to refer to pure changes: *Koppen gick sönder* 'The cup broke'. Interestingly, Majid et al (2007) found in a comparison of Germanic languages based on cluster analysis, that English had two major clusters corresponding to breaking and cutting, whereas Swedish had five major clusters. This analysis was based exclusively on the verbs that were used, and certainly Swedish uses a wide variety of verbs. However, it might be argued that the major classification in Swedish is achieved with particles. The major particles are *sönder*, which conceptually closely corresponds to breaking, and *av* 'off' which – arguably – corresponds to what Majid & Bowerman (2007) call a predictable locus of separation. The intention of the action is a further important factor. C&B verbs can refer both to unintentional or intentional destruction (the default with *sönder/break*) or to creation, for example *Peter täljde en älg av trä* 'Peter carved a moose out of wood'. Verbs of repair (Schwarze 1979, 1985) are related to breaking, since they presuppose a certain kind of damage. The relationships between C&B verbs and the other types of verbs will be demonstrated with the help of FrameNet, which also serves as a model to describe the grammatical structure by showing how various frame elements are realized in the argument structure.

References

Altenberg, Bengt and Karin Aijmer. 2000. The English-Swedish Parallel Corpus: A resource for contrastive research and translation studies. In *Corpus Linguistics and Linguistic Theory*, edited by Christian Mair and Marianne Hundt, 15-23, Amsterdam – Atlanta/GA: Rodopi.

Borin, Lars, Magnus Forsberg and Johan Roxendal. 2012. Korp – the corpus infrastructure of Språkbanken. http://www.lrec-conf.org/proceedings/lrec2012/pdf/248_Paper.pdf

Majid, Asifa & Bowerman, Melissa (eds.) 2007. "Cutting and breaking events": A crosslinguistic perspective. *Cognitive Linguistics* 18: 2 (special issue).

Majid, Asifa, Gullberg, Marianne, van Staden, Miriam & Bowerman, Melissa. 2007. How similar are semantic categories in closely related languages? A comparison of cutting and breaking in four Germanic languages. *Cognitive Linguistics* 18:2, 179-194.

Majid, Asifa, Boster, James S. & Bowerman, Melissa. 2008. The cross-linguistic categorization of everyday events: A study of cutting and breaking. *Cognition* 109, 235-250.

Schwarze, Christoph. 1979. Réparer – reparieren. A contrastive analysis. In: Bäuerle, Rainer, Egli, Urs & von Stechow, Arnim (eds.), *Semantics from different points of view*. Berlin & New York: Springer, 304-323.

Schwarze, Christoph & François, Jacques. 1985. Heilen und reparieren. In: Schwarze (ed.) *Beiträge zu einem kontrastiven Wortfeldlexikon Deutsch – Französisch*. Tübingen: Gunter Narr Verlag, 143-189.

Viberg, Åke. 1985. Hel och trasig. En skiss av några verbal semantiska fält i svenskan. [In Swedish: Whole and broken. A sketch of some verbal semantic fields in Swedish] In: *Svenskans beskrivning* 15. Göteborg University, 529-554.

Viberg, Åke. 2007. Whole and broken. Breaking and cutting in Swedish from a crosslinguistic perspective. In: Ahlsén, Elisabeth et al. (eds.), *Communication – action – meaning*. A Festschrift to Jens Allwood. Göteborg University: Department of Linguistics, 17-42.

Databases

BYU-BNC. British National Corpus: http://corpus.byu.edu/bnc/

ESPC. The English Swedish Parallel Corpus. For a description, see: http://www.englund.lu.se/content/view/66/127/

See also: Altenberg & Aijmer (2000)

FrameNet: http://www.icsi.berkeley.edu/~framenet/

KORP. http://spraakbanken.gu.se

See also: Borin et al. (2012)

WORKSHOP 16

Niches in morphology

Anja Hasse, Rik van Gijn, Tania Paciaroni, & Sandro Bachmann
(University of Surrey, University of Zurich; University of Zurich; & University of Zurich)

As a general principle for all organized systems, situations of competition for a particular niche are expected to be resolved either by elimination or adaptation of one or more of the competing elements (Gause 1934). As organized systems where everything is connected, languages can be assumed to be no exception to this principle. And indeed it has been claimed that language change is partly driven or shaped by competition resolution or synonymy avoidance (see e.g. Carstairs-McCarthy 2010 on the evolution of morphology). Exploring the role of competition in language change in detail, Aronoff (2016) proposes to apply the notion of "niche" to linguistic systems to explain distributions of rival expressions in languages. A clear example of adaptation in language is the distribution of the affixes -*ic* and -*ical* in English, which appear to be completely synonymous, but occupy different morphological niches: While -*ic* is generally preferred, forms in -*ical* are only derived from a subset of stems ending in -*ology* (cf. Lindsay & Aronoff 2013).

Aronoff's proposal interestingly suggests that competition and its resolution in language is an instantiation of a much more general principle, which opens up an interdisciplinary dialogue about competition resolution across complex systems. Moreover, it provides a framework that can bring together phenomena not normally considered together. Aronoff (2016), for instance, discusses allomorphy, ranging from resolved (complementary distributed) allomorphy to situations of (near-)equilibrium such as overabundance (cf. Thornton 2011), but he also addresses limits to defaults in inflection classes (cf. e.g. Carstairs-McCarthy 1994).

Conceivably, the niche metaphor can be extended to many more phenomena. For example, Walsh (2012) describes a phenomenon in the Australian language Murrinhpatha that might be termed templatic, or slot competition, where there is a particular slot on the verb that can be filled either by a direct object bound pronoun or by an indirect bound pronoun. Only when there is no direct object, or when the direct object has zero exponence can the indirect object appear in that slot.

In this workshop, we propose to explore the extent to which the notion of niche can be extended to linguistics (and therefore the extent to which an interdisciplinary dialogue becomes feasible and fruitful). In order to keep the range of phenomena within reasonable boundaries, we focus on morphological phenomena, and in particular on niches provided by the language system (thus excluding sociocultural niches such as register). Potential phenomena and topics linked to the notion of niche include (but are not limited to):

Rivalry between derivational affixes
Bases may have several derivational operations available to them, which seem to be rivalling in the sense that they yield similar results. This situation may point to genuine rivalry or, on closer inspection, they may be occupying different niches, based on e.g. selection restrictions of the base or of the morphological markers, or on properties of the resulting derivate.

Allomorphy in inflectional systems

It is a well-established fact that inflectional systems can be organized in classes, effectively creating a situation of lexeme-based allomorphy. Less is known about the elements that contribute to the rise, fall, and maintenance of these classes. Diachronic (corpus) research can shed light on these issues, and achieve a fuller picture of the niches constituted by inflection classes.

Productive niches
Niches may also provide an environment for the survival of morphological patterns that are otherwise absent or lost in a language, such as partial agreement. These types of niches may be called productive niches, which can help understand the tenacity of lexically limited morphological (sub)systems.

Slot competition
As has been discussed above, a different type of competition is slot competition. Apart from the type exemplified by Murrinhpatha, one can think for instance of so-called hierarchical alignment systems, where the competition between person markers for a particular templatic slot is resolved systematically, generally on the basis of a hierarchy of person value and/or syntactic role.

Psycholinguistic factors in competition resolution
Beyond the purely linguistic definition of niches lies the question of the psychological reality of niches. A different set of questions therefore relate to psycholinguistic factors involved in the resolution of competition, e.g. frequency of use, the number of members in a particular morphological class, the degree of similarity between the items in a morphological class.

Structural parsing competition
Morphologically complex words may show structural ambiguity in the sense that they can have more than one structural interpretation, which may be regarded as a form of parsing competition. One possible reason that these ambiguities persist may be because they are associated with different paths of semantic relations in the mental lexicon and therefore not in direct competition.

The topics described above can be approaches in many different ways. For the workshop we propose to focus on four broad approaches (but contributors should not feel limited by them):

- Explicit comparisons with ecological niches, addressing questions such as what would be the linguistic equivalent of environmental factors, what would a species mean in linguistics, to what extent do we see interaction between species and the enviromental factors that is typical of ecological niches (e.g. depletion of the resources by growth rates that are too fast)?
- In-depth analyses of phenomena, addressing the nature of niches and their explanatory value for the understanding of the phenomenon in question.
- Comparative (typological, areal, genealogical) perspectives on niches, adressing questions regarding the genealogical/areal (in)stability of niches, borrowability of niches, common versus uncommon niches.
- Corpus studies of niches. Competing exponents of a feature value (or a bundle of feature values) are ideally in complementary distribution. Corpus studies, however, may show that distributions are no more than statistical tendencies – or even very different than is claimed (see e.g. Lindsay & Aronoff 2013).

References

Aronoff, Mark. 2016. Competition and the lexicon. In: A. Elia, C. Iacobini & M. Voghera (eds.): *Livelli di Analisi e fenomeni di interfaccia*. Atti del XLVII Congresso Internazionale della Società di Linguistica Italiana. Roma: Bulzoni Editore, pp. 39-52.

Carstairs-McCarthy, Andrew. 1994. Inflection classes, gender and the Principle of Contrast. In: *Language* 70, pp. 737–788.

Carstairs-McCarthy, Andrew. 2010. *The evolution of morphology*. Oxford: Oxford University Press.

Gause, Georgij F. 1934. *The struggle for existence*. Baltimore: Williams and Wilkins.

Lindsay, Mark & Mark Aronoff. 2013. Natural selection in self-organizing morphological systems. In: F. Montermini, G. Boyé, J. Tseng (eds.): *Morphology in Toulouse: Selected Proceedings of Décembrettes 7*. Munich: Lincom Europa, pp. 133–153.

Thornton, Anna M. 2011. Overabundance (Multiple Forms Realizing the Same Cell): A Non-canonical Phenomenon in Italian Verb Morphology. In: M. Maiden, J. Smith, J. Charles, M. Goldbach & M. Hinzelin (eds.): *Morphological Autonomy: Perspectives from Romance Inflectional Morphology*. Oxford: Oxford University Press, pp. 358–381.

Walsh, Michael James. 2012. *The Мuлinyapata language of north-west Australia*. Munich: LINCOM.

Morphological niches are the result of competitive exclusion

Mark Aronoff

The *Oxford English Dictionary Online* defines one sense of the noun *niche* as "A place or position suited to or intended for the character, capabilities, status, etc., of a person or thing." The ecological sense is a more specialized version of this earlier one: "The actual or potential position of an organism within a particular ecosystem, as determined by its biological role together with the set of environmental conditions under which it lives." Recently (Author and Lindsay 2014, Author 2016), I have used a precise version of the ecological notion, Gause's principle of competitive exclusion (Gause 1934, Levin 1970), to account for the distribution of affixes (their linguistic niches) in a number of languages.

Gause's principle states that when two species compete for exactly the same requirements, one will be slightly more efficient than the other and will reproduce at a higher rate; the fate of the less efficient species is local extinction. Applied directly to language, Gause's principle covers a variety of well-known types of phenomena in morphology, from synonymy or its absence to inflectional classes to the elsewhere condition. In this presentation, I concentrate on the distribution of alternants.

The closest analogue of the distribution of alternants in evolutionary biology is *ecological niche differentiation*, the process by which natural selection drives competing species into different distribution patterns of resource use, ecological niches. There are many ways in which this can occur in nature. Closest to linguistic systems of complementary distribution is *resource partitioning,* in which two or more competing species divide up the resource along some lines, and more precisely its subtype, *spatial partitioning*, in which the resource is a distinct habitat that each species occupies.

The inflectional phenomenon of *phonologically conditioned suppletion* (Carstairs 1988) is a paradigm example of niche differentiation through spatial partitioning. Carstairs discusses over a dozen cases in each of which two or more unrelated 'allomorphs' are distributed by phonological environments. For example, in the Bantu language Fang, a single noun class bears the prefix *dz-* before vowels and *a-* before consonants: each has found its niche. In derivation, it is common for rival affixes to be similarly distributed. "In modern Dutch neutral deverbal personal names are coined in –

er, *-der*, and *–aar*. As far as the coining of new words is concerned . . . , the 'elements' . . . seem to be more or less in 'complementary distribution." (van Marle 1985: 264, cited by Carstairs).

I will show that allomorphy and the rivalry between derivational affixes can both be understood in terms of morphological niches resulting from Gausian competition. Gausian competition allows us to unite these seemingly distinct phenomena and to explain their differences in terms of the distinct environmental conditions under which the two exist. I will demonstrate my case with detailed examples from several languages. Finally, I will review the types of linguistic variables that have been identified to date as niches for morphological realization in a variety of languages, including Russian, Modern Hebrew, German, and English.

References

Author. 2016. Competition and the lexicon. In Livelli di Analisi e fenomeni di interfaccia. Atti del XLVII congresso internazionale della società di linguistica Italiana. Ed. by Annibale Elia, Claudio Iacobino, and Miriam Voghera. Roma: Bulzoni Editore. 39-52.

Author, and Mark Lindsay. 2014. Partial organization in languages: la langue est un système où la plupart se tient. Proceedings of Décembrettes 8. Edited by Sandra Augendre, Graziella Couasnon-Torlois, Déborah Lebon, Clément Michard, Gilles Boyé, and Fabio Montermini. Rapport Interne No. 22 de CLLE-ERSS. pp. 1-14.

Carstairs, Andrew. 1988. Phonologically conditioned suppletion. Yearbook of Morphology 1988. 67-94.

Gause, Georgy. 1934. The Struggle for Existence. Baltimore: Williams and Wilkins.

Levin, Simon A. 1970. Community equilibria and stability, and an extension of the competitive exclusion principle. The American Naturalist 104. 413—423.

Affix selection and logical structures in Italian deverbal nouns

Anna Riccio

(University of Naples "L'Orientale")

Different affixes may adjoin the same base to construct event deverbal nouns (cf. *suffix-suffix interference*, in Marslen-Wilson / Zhou / Ford 1997). Consider the examples in (1a) and (1b):

(1)   a.   *evitare l'attorcigliamento dei cavi nella struttura della torre* [lit. 'avoid twisting of the cables in the tower structure']

         b.   *sono vietate le giunzioni tramite attorcigliatura dei conduttori* [lit. 'the junctions by twisting the conductors together are prohibited']

The suffixes *-mento* and *-tura* are distinct morphemes that are attached to the same base *attorciglia-(re)* 'to twist' and have the same syntactic distribution.

This paper investigates the semantics features of the deverbal nominal suffixes, such as *-mento*, *-zione*, *-tura* and *-aggio* (cf. Thornton 1990, 1991; Gaeta 2004), in order to distinguish between affix rivalry, i.e., the swap of an affix by another one without semantic change, and the semantic distribution of affixes that forms pairs of lexemes with different meanings. Lexical data are extracted from the large web-based Italian corpora *itTenTen* (3-billion words) (Jakubíček *et al.* 2013) and *itWaC*

(2-billion words) (Baroni / Kilgarriff 2006), in order to analyze the syntactic patterns, collocations, and contexts in which they can be expected to occur.

The data are analyzed in terms of a lexical decomposition system (cf. Dowty 1979; Van Valin / LaPolla 1997), with the aim of identifying the degree of compatibility between the semantic features of the base verb and those of the suffix. See examples above. Both derivatives in (1a) and in (1b) involve an entity that undergoes a change of state, but they show variable behavior with respect to some features regarding acts and agents, such as telicity and volition. As far as this last point is concerned, an externally caused change of state (Smith 1970; Levin / Rappaport Hovav 1995) is conceptualized in both deverbal nouns, i.e., ((α) CAUSE (BECOME (x <STATE>))). But what distinguishes them is the presence or absence of a volitional act or conscious action: (1a) represents the act as being non-volitional, whereas (1b) implies the existence of a controller agent which involves the entity in a volitional action; this could explain why –*mento* does not take into account the agent of the event and places the focus on the endpoint or final state of the event, by suggesting a telic interpretation. The suffix –*tura* is aspectually different, since it mostly refers to the action in its development. Under these conditions, the language system seems to provide different productive "niches" for each of these suffixes (Lindsay / Aronoff 2013) (cf. *semantic distribution of affixes*).

The deverbal nominalizations also show similar syntactic and semantic competition patterns in which the semantic nuances of the distinct exponents seem to be neutralized (cf. *affix rivalry*), e.g. *perforazione / perforamento / perforatura del timpano* 'tympanum perforation'. In this regard, the corpus-based research clearly displays a more frequent use of the suffix -*zione* (90%), followed by the less frequent occurrences of -*mento* (9%) and -*tura* (1%).

As discussed above, the analysis contributes to the understanding of the mechanisms that are involved in semantic rivalry between the deverbal suffixes by distinguishing this process from the semantic distribution of derivational affixes.

References

Baroni, Marco / Kilgarriff, Adam (2006): *Large Linguistically-Processed Web Corpora for Multiple Languages*. EACL 2006 Proceedings. 87-90.

Dowty, David (1979): *Word Meaning and Montague Grammar*. Dordrecht: D. Reidel Publishing Company.

Gaeta, Livio (2004): *Nomi d'azione*. In Maria Grossmann / Franz Rainer (eds.): *La formazione delle parole in italiano*. Tübingen: Niemeyer, 314-351.

Jakubíček, Miloš / Kilgarriff, Adam / Kovář V. Vojtěch / Rychlý, Pavel / Suchomel, Vit (2013): *The TenTen Corpus Family*. 7th International Corpus Linguistics Conference, Lancaster.

Levin, Beth / Rappaport Hovav, Malka (1995): *Unaccusativity: At the Syntax-Lexical Semantics Interface*. *Linguistic Inquiry Monograph Twenty-Six*. Cambridge, Massachusetts. London, England: The MIT Press.

Lindsay, Mark / Aronoff, Mark (2013): *Natural selection in self-organizing morphological systems*. In Montermini, Fabio / Boyé, Gilles / Tseng, Jesse (eds.): *Morphology in Toulouse: Selected Proceedings of Décembrettes 7*. Munich: Lincom Europa, 133-153.

Marslen-Wilson, William D. / Zhou, Xiaolin / Ford, Mike (1997): *Morphology, modality, and lexical architecture*. In Booij, Geert / van Marle, Jaap (eds.): *Yearbook of Morphology 1996*. Dordrecht: Kluwer Academic Publishers, pp 117-134.

Smith, Carlotta (1970): *Jespersen's 'Move and Change' Class and Causative Verbs in English*. In Jazayery, Mohammad A. / Palome, Edgar C. / Winter, Werner (eds.): *Linguistic and Literary Studies In Honor of Archibald A. Hill. Vol. 2, Descriptive Lingusitics*. The Hague: Mouton, 101-109.

Thornton, Anna M. (1990): *Sui deverbali italiani in -mento e -zione (I), Archivio Glottologico Italiano* 75: 169-207.

Thornton, Anna M. (1991): *Sui deverbali italiani in -mento e -zione (II), Archivio Glottologico Italiano* 76: 79-102.

Van Valin, Robert D. / LaPolla, Randy J. (1997): *Syntax Structure, Meaning and Function*. Cambridge: Cambridge University Press.

Competition without resolution: niches in a relational lexicon

Jenny Audring

(Leiden University)

In morphological parsing, one way that competition arises is through structural ambiguity: complex words synchronically matching two or more derivational or inflectional patterns. Particularly interesting are words in which the ambiguity is unresolvable even in context, and competing analyses persist. The examples in (1) illustrate five scenarios in which such words occur: after 'affix telescoping' (Haspelmath 2002), in blends, in derivations with bound roots, with homophonous affixes and in morphological fission or *splinter* formation, where a stem part splits off and gains affix-like productivity.

(1) a) *visserij* 'fishery' $[_N [_N visser]\text{-}ij] / [_N [_V viss]\text{-}erij]$ (Dutch)
  b) *boatel* $[boat]el / b[otel]$ (English)
  c) *ambition* $[_N [amb]\text{-}ition] / [_N [ambit]\text{-}ion]$ (English)
  d) *krümel-* 'crumble' $[_V [_N Krüm]\text{-}el] / [_V [_N [_N Krüm]\text{-}el]]$ (German)
  e) *selfie* $[_N [_{Prt} self]\text{-}ie] / [_N [sel]\text{-}fie]$ (Dutch)

(1a) shows the ambiguity of Dutch *visserij*: it can be analyzed as containing the denominal suffix *–ij* or the deverbal suffix *–erij*. In (1b), the blend has an ambiguous structure due to the phonological overlap of the two words. In *ambition*, the border between the non-lexical root and the suffix is indeterminable. (1d) is ambiguous due to a homophonous nominal and verbal diminutive suffix in German. Finally, (1e) reflects the fact that Dutch has developed a productive (and indeed popular) suffix *–fie* 'photo of oneself with X/ while doing X' (e.g. *brilfie* 'photo of oneself wearing glasses', *stemfie* 'photo of oneself voting'), which gives the loan *selfie* a synchronically ambiguous structure.

For derivational theories of morphology, structurally ambiguous words present a problem, as they fall under the jurisdiction of more than one derivational process. I will argue instead for a declarative and relational model of morphology (Jackendoff & Audring forthcoming) with an integrated architecture of grammar and lexicon similar to Construction Morphology (Booij 2010). In this model, morphological patterns have a generative role in production, but a motivational role in parsing and lexicon organization (Booij to appear, Jackendoff & Audring 2016). Motivation, however, does not necessarily involve a unique relation. Instead, complex words can be structurally related to more than one derivational or inflectional pattern. From the perspective of this model, competition due to structural ambiguity can persist without resolution.

References

Booij, Geert. 2010. *Construction Morphology*. Oxford: Oxford University Press.

Booij, Geert. to appear. Inheritance and motivation in Construction Morphology. In Nikolas Gisborne & Andrew Hippisley (eds.), Default inheritance. Oxford: Oxford University Press.

Haspelmath, Martin. 2002. *Understanding Morphology*. London: Arnold.

Jackendoff, Ray & Audring, Jenny. 2016. Morphological schemas. theoretical and psycholinguistic issues. *Mental Lexicon* 11(3): 467-493.

Jackendoff, Ray & Audring, Jenny. forthcoming. *The Texture of the Mental Lexicon.* Oxford: OUP.

The Lexeme Consistency Principle and the niches where it fails

Greville G. Corbett

(Surrey Morphology Group, University of Surrey)

Theoretical and applied linguists agree on what we shall call the 'Lexeme Consistency Principle': A lexeme's internal structuring and its external requirements are both consistent. Thus if a theoretician or a dictionary-creator states that a given verb governs the dative, this requirement applies equally to the first singular present and to the third plural past subjunctive. And canonically it does, and the principle holds. This paper proposes a typology of the examples where it does not.

Since internal inconsistences have been examined in detail (Corbett 2015), the focus here will be on external inconsistencies. In terms of "niches" (Aronoff 2016), we may say that the external niche, that is, the segment of the external morphosyntactic feature space determined by a lexeme, is specified "once and for all" by the lexeme. This may be in terms of a default, such as transitive verbs taking nominative and accusative cases, or by a "quirky" specification. The situations where this canonical expectation does not hold provide an interesting typology. There are three general types of override:

(i)   polysemous lexemes may have different external niches for their different senses;

(ii)   in Differential Object/Subject Marking, the niches can override the lexical requirement (for the default, but not for quirky assignments);

(iii)   agreement produces principled overrides, where different cells of the lexeme have different external requirements. Importantly the external requirements match the internal featural specification (thus singular cells control singular agreement). This does not hold for hybrids, as discussed below.

The most interesting part of the typology concerns more specific instances, where different external niches are lexically determined (usually by splits within the lexeme's own paradigm). We distinguish four criteria here:

(i)   internal feature same as external versus different from external feature

In the 'same' condition, Russian numerals determine the *case* value of their quantified phrase, dependent on their own *case* value. Contrast this with Georgian verbs which govern different *case* values, but according to their own *tense*, *aspect* and *mood*.

(ii)   all internal feature values involved versus a subset

OHG *wīb* 'woman, wife' is a hybrid taking different gender agreements in both singular and plural. Contrast this with SC *gazda* 'landlord', which takes masculine and feminine agreements, but only when plural.

(iii)   unconditional determination versus conditional

The Russian numeral determines case unconditionally, based on its own case. Contrast this with Latvian prepositions, which govern different case values conditioned by the number of the governee.

(iv)   consistent external requirement versus inconsistent
SC *oko* 'eye', takes neuter agreement when singular, and feminine when plural, for all targets consistently. Contrast with the Nordreisa dialect of Norwegian, where *mama* 'Mum', takes masculine agreement, provided it is definite; this is restricted to the noun phrase: outside the noun phrase feminine agreement is much preferred.

The interactions of these four criteria prove complex. Sixteen possibilities are induced; not all have yet been attested; this may be for paucity of data rather than for principled reasons. External niches are a new area of study, and so these overrides to the Lexical Consistency Principle are still being explored.

Alena Witzlack-Makarevich, Fernando Zúñiga, & Lennart Bierkandt

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Productive niches and systems of sporadic agreement

Sebastian Fedden
(University of Paris III: Sorbonne Nouvelle)

Sporadic agreement can be defined as follows: A situation counts as sporadic agreement if two words belonging to the same word class in a language display different behaviour with respect to agreement: In the same syntactic context, one word shows agreement, whereas the other one does not.

For example, Italian adjectives generally agree in gender and number with the noun they modify, such as *azzurro* 'azure' in *cielo azzurro* 'azure sky', where the adjective ends in *-o* expressing masculine and singular, and *cieli azzurri* 'azure skies', where the adjective ends in *-i* expressing masculine and plural. However, there are some adjectives, such as *blu* 'blue', which do not agree, hence *libro blu* 'blue book', where *libro* is masculine and singular like *cielo*, but there is nothing on *blu* which indicates this.

Languages are systems in flux. On one view, sporadic agreement should not exist or should at least be ironed out over time because of the additional and apparently unnecessary effort involved in mastering a partial rule system. Since a subset of the word class in question does not agree the system seems to work unproblematically without the agreement. We might assume that sporadic agreement disappears over time and all items within a word class that show sporadic agreement become non-agreeing (or perhaps less likely, to become agreeing) to reduce the cognitive load of a partial rule system.

However, sporadic agreement systems are not characterized by random gaps. A pilot study based on a sample of 20 languages suggests that sporadic agreement systems function on the basis of domains that are defined by phonological, semantic, and etymological (i.e. whether a word is a loan or not) factors. Xu, Anshen and Aronoff (2007) identify a set of 'productive niches' that enables the survival of Latin deponent verbs, i.e. verbs with passive forms and active meanings like *uti* 'use'. The concept of 'productive niche' can be usefully applied to the distribution of agreeing or non-agreeing items in sporadic agreement systems, and likewise these niches contribute to their survival.

For example, the Italian colour adjective *blu* 'blue', like all other adjectives that end in a stressed vowel, does not agree, because it fits this particular phonological pattern. Conversely, only verbs with an initial vowel agree in Tsez (a Nakh-Dagestanian language; Polinsky and Comrie 1999; Polinsky and Potsdam 2001), whereas consonant-initial verbs do not. In the Papuan language Mian (Fedden 2011) the niche for verbs is semantic: only transitive verbs with affected objects, e.g. *-nâ'* 'hit, kill' or *-ntamâ'* 'bite', agree with their object.

While a well-known factor contributing to the stability of sporadic agreement systems is high token frequency of the minority pattern (either agreeing or non-agreeing) (e.g. Gagliardi 2012 on Tsez), the productive niche, which allows us to capture linguistic structures, is a useful concept for the analysis of sporadic agreement systems and the explanation of their tenacity.

References

Fedden, Sebastian. 2011. *A grammar of Mian*. [Mouton Grammar Library 55.] Berlin: De Gruyter Mouton.

Gagliardi, Ann C. 2012. Input and intake in language acquisition. University of Maryland PhD dissertation.

Polinsky, Maria and Bernard Comrie. 1999. Agreement in Tsez. In: G. G. Corbett (ed.), *Agreement* (Special issue of Folia Linguistica 33/2), 109-130. Berlin: Mouton de Gruyter.

Polinsky, Maria and Eric Potsdam. 2001. Long-distance agreement and topic in Tsez. *Natural Language and Linguistic Theory* 19(3): 583-646.

Xu, Zheng, Frank Anshen and Mark Aronoff. 2007. Deponency in Latin. *Proceedings of the British Academy* 145: 127-143.

Morphological niches and templatic structure in Murrinhpatha

Rachel Nordlinger & John Mansfield

(University of Melbourne)

In this paper we discuss a morphological property of verbs in Murrinhpatha, a polysynthetic language of northern Australia, which provides an interesting example of how competition can be resolved within complex morphological paradigms. Following Aronoff's (2016) proposal to apply the notion of 'niche' to linguistic systems, these Murrinhpatha data suggest that morphological niches can be based upon the position of other morphs in the verbal word.

The crucial Murrinhpatha facts that we discuss are given in (1)-(2) (Nordlinger and Mansfield 2015). In (1) we see that the dual non-sibling subject category is encoded with the singular form *ba-* in Slot 1, combined with the dual marker *–ngintha-*.

(1)   ***ba*-*ngintha*-*ngkardu-nu***
        1sgS.see(13).fut-du.f-see-fut
        'We dual (non-siblings) will see it/him/her.'

In (2) however, we see that that the presence of an object marker in Slot 2 requires that *-ngintha-* appear in later in the verb (Slot 8). In this case, the classifier stem takes the dual form, which is not grammatical when *-ngintha* appears in Slot 2 (cf. (3)).

(2)   ***nguba**-nhi-ngkardu-nu-**ngintha***
       1**du**S.see(13).fut-2sgO-see-fut-**du.f**
       'We dual (non-siblings) will see you.'
(3)   ***nguba**-(***ngintha**)-ngkardu-nu*
       1duS.see(13).fut-du.f-see-fut
       'We dual (siblings) will see it/him/her.'

Thus, in Murrinhpatha verbal paradigms there are two classifier forms used in the expression of the dual non-sibling subject category: singular and dual. The dual form is only grammatical when *-ngintha-* appears in Slot 8; when it appears in Slot 2 (when there is no overt object marker), the singular form must be used.

For most of the niches described by Aronoff (2016), each lexeme resolves competition in favour of one form or another: *typical* vs **typic*, and *hectic* vs **hectical*. But the Murrinhpatha competition between singular and dual subject categories does not resolve verbs to one form or the other, but instead retains an equilibrium between the two, conditioned by the position of other morphs in the verbal word. The Murrinhpatha niche is also different because it involves competition between morphological categories to encode a grammatical number category, rather than the more direct competition between phonological forms found in other niche examples discussed in the literature. For example, the competition between *ba-* (1sgS) in (1) and *nguba-* (1duS) in (2) for the verb "see" is similarly manifest as a competition between *dam-* (1sgS) and *parram-* (1duS) for the verb "spear". The same conditional resolution applies, but it is a resolution between grammatical categories singular/dual, rather than between phonological forms as in Aronoff's (2016) examples *-ic* vs *-ical* or indeed *hazelnut* vs *filbert*.

Thus the Murrinhpatha data contribute to our understanding of morphological niches in two important ways. Firstly, in Murrinhpatha we see a different type of competitive equilibrium not mentioned by Aronoff (2016), where two distinct morphological categories compete to encode a single grammatical number category. Secondly, these data expand our understanding of the conditioning factors for resolution of morphological niches by showing that they can be based upon the position of other morphs in the verbal word.

References

Aronoff, Mark. 2016. Competition and the lexicon. In Annibale Elia, Claudio Lacobini & Miriam Voghera (eds.), *Livelli di Analisi e fenomeni di interfaccia. Atti del XLVII congresso internazionale della società di linguistica Italiana*, 39–52. Roma: Bulzoni Editore.

Nordlinger, Rachel and John Mansfield. 2015. Murrinhpatha verbs and models of morphology. Paper presented at the ALS 2015 Conference, Western Sydney University, December 2015.

Experimental evidence for niche seeking as a result of competition in comprehension

Zara Harmon and Vsevolod Kapatsinski
(University of Oregon)

Research on lexical acquisition has suggested that learners have a bias in favor of one-to-one form-meaning mappings (mutual exclusivity; Markman & Wachtel, 1988). When two forms compete for expressing a meaning, an increase in the frequency of one of the form-meaning mappings makes the frequent form a better cue to the shared meaning. As a result, mutual exclusivity and accessibility of a frequent form can drive the competitor of the frequent form out of the shared meaning. We investigated this process for competing morphological suffixes using miniature artificial language learning.

We exposed 70 adult speakers of American English to two artificial languages, Dan and Nem, where the meaning of PL (plural) is expressed with two suffixes *-dan* and *-sil* and the meaning of DIM (diminutive) is expressed with two suffixes *-nem* and *-shoon*. The frequencies of *–dan* and *–nem* were boosted by a factor of 4 in Dan language and Nem language respectively (thicker lines in the following figure). The meaning of DIM.PL (diminutive plural) was not presented to participants during exposure, but was presented during test. At test, learners heard a form and were asked to click on the picture of the corresponding meaning.
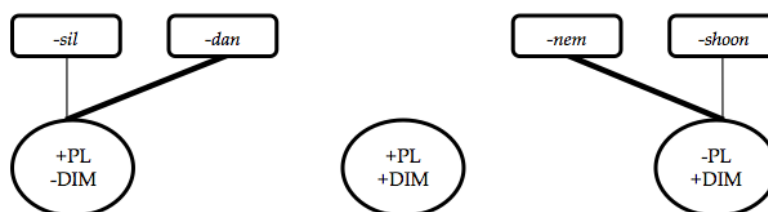
The results revealed that increasing the frequency of a form (*-dan* in Dan and *-nem* in Nem) made that form significantly more likely to be mapped onto the shared meanings; χ^2 (1)= 17, $p < .0001$ (Figure 1A). Conversely, competitors of frequent forms (*-sil* in Dan and *-shoon* in Nem) were especially likely to be mapped onto the novel meaning of DIM.PL; χ^2 (1) = 41.2, $p < .0001$ (Figure 1B).

Frequent occurrence of the frequent forms with the shared meaning increases their strength of associations with those meanings. This results in the weakening of form-meaning associations between competitors with the shared meanings (van Hamme & Wasserman, 1994). Left unassociated with a meaning, the forms with frequent competitors can then map onto DIM.PL, the novel meaning. The novelty of DIM.PL draws attention, an effect comparable with the Novel Name Nameless Category Principle (Mervis & Bertrand, 1994). In addition – unlike the familiar meanings that appeared with other suffixes during exposure – the novel meaning has not had the opportunity to develop an inhibitory association with any of the forms. Therefore, the learner maps the form whose meaning she does not know onto the meaning that has not been *dis*associated from any form (McMurray, Horst, & Samuelson, 2012). Overall, in a system biased towards one-to-one mappings, having a strong competitor threatens a form's survival, forcing it to find a new niche (Aronoff, 2016). In this way, a form that is frequently encountered with a particular meaning pushes competing forms out of that meaning.

A)

B)
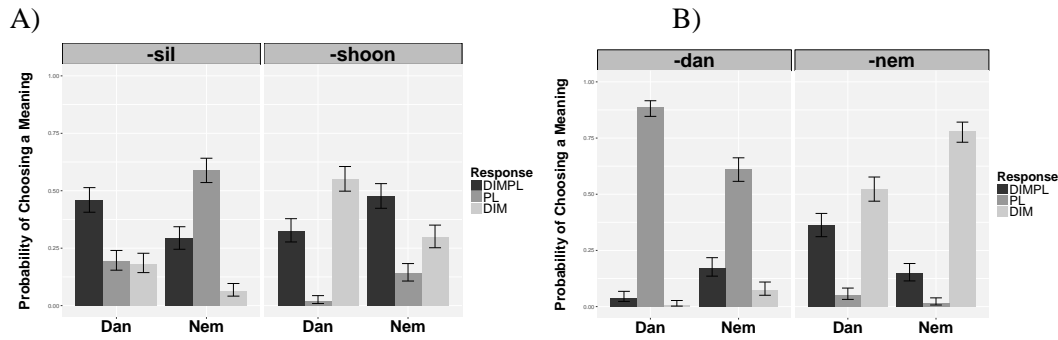
Figure 1. The probability of choosing PL, DIM, and DIM.PL meanings for *–dan* and *–nem* (A); and their competitors, *–sil* and *–shoon* (B) in Dan and Nem languages.

References

Aronoff, M. (2016). Competition and the lexicon. In A. Elia, C. Iacobino & M. Voghera (Eds.), *Livelli di Analisi e fenomeni di interfaccia. Atti del XLVII Congresso Internazionale della Società di Linguistica Italiana* (pp. 39-52). Roma: Bulzoni Editore.

Markman, E. M., & Wachtel, G. F. (1988). Children's use of mutual exclusivity to constrain the meanings of words. *Cognitive Psychology*, *20*(2), 121-157.

McMurray, B., Horst, J. S., & Samuelson, L. K. (2012). Word learning emerges from the interaction of online referent selection and slow associative learning. *Psychological Review*, *119*(4), 831-877.

Mervis, C. B., & Bertrand, J. (1994). Acquisition of the novel name-nameless category (N3C) principle. *Child Development*, *65*(6), 1646-1662.

Van Hamme, L. J., & Wasserman, E. A. (1994). Cue competition in causality judgments: The role of nonpresentation of compound stimulus elements. *Learning and Motivation*, *25*(2), 127-151.

Matthew Baerman, Irina Monich, & Oliver Bond

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Non-canonical postverbal subjects

Delia Bentley & Silvio Cruschina
(University of Manchester & University of Vienna)

The study of the grammatical relation *subject* has a long history in linguistics, dating back to ancient Greek. Over time different definitions of subject have been provided, depending on properties of the languages under examination or on the theoretical perspective adopted. There is consensus that subject is a central grammatical function in a great deal of the world's languages, where a cluster of morpho-syntactic properties (case morphology, in nominative–accusative languages, and control of person and number agreement on the verb) correlates with semantic and pragmatic properties (the semantic roles *agent* or *experiencer*, the discourse function *topic*, etc.). The question of whether subject is a linguistic universal is, however, still open (LaPolla 1993, Dryer 1997, Van Valin & LaPolla 1997, Van Valin 2005, Bickel 2011). Even though many of the properties that are traditionally associated with the subject function recur cross-linguistically, it is by no means the case that the subject exhibits exactly the same set of features across all languages (see Keenan 1976, Falk 2006). The term *subject*, moreover, takes a different meaning depending on whether one deals with nominative–accusative or ergative–absolutive alignment. In fact, it can be argued that the comparative analysis of these types of alignment, and cross-constructional analysis within individual languages, challenge the validity or usefulness of this construct (Comrie 1973, Anderson 1976, Sasse 1978, Van Valin 1981, Van Valin & LaPolla 1997, Farrell 2005).

In the last two decades, a great deal of progress in the understanding of the notion subject has been made by investigating non-canonical subjects, namely, predicate arguments of a given language that share some – but not all – patterns of grammatical coding and behaviour with the subject of that language (see Bossong 1998, Aikhenvald et al. 2001, Barðdal & Eythórsson 2003, 2009, Bhaskararao & Subbarao 2004, Barðdal 2006, Cennamo 2011, Seržant & Kulikov 2013, Fabrizio in press, Cennamo & Fabrizio in press). The narrowing down of the investigation to non-canonical subjects has led to the development of a number of useful criteria and tests for subjecthood.

Following this line of investigation, in this workshop we aim to bring together linguists working on a specific subclass of non-canonical subjects, namely postverbal ones. The goals of the workshop embrace the investigation of semantic, pragmatic and morpho-syntactic properties of postverbal subjects, as well as the specific constructions and syntactic environments that license them. The properties of non-canonical postverbal subjects in word order typologies other than SVO are also within the scope of the workshop. Ultimately, we aim to contribute to the understanding of the notion *subject*, its cross-linguistic extent and its limitations.

The following questions will be addressed in the workshop:

- Which morphosyntactic properties characterize clauses with non-canonical postverbal subjects?

A correlation holds between VS order and lack of verb-subject agreement (Moravcsik 1978, Lehmann 1982, Fassi Fehri 1993, Ouhalla 1994, Samek-Lodovici 2002, Corbett 2006, a.o.). The lack of V-S agreement is sensitive to a number of variables, including the presence of an expletive form in a

preverbal subject position, the definiteness of the postverbal DP, the semantics of the predicate and its entailments on the postverbal argument. A typologically-adequate predictive theory of the relative significance of the relevant variables is still a desideratum. The relationship of the postverbal DP with a non-nominative constituent in a preverbal subject position, as well as the mechanisms that guarantee case marking, are also debated (Chomsky 1981, 1986, Rizzi 1982, Burzio 1986, Bresnan & Mchombo 1987, Belletti 1988, Grewendorf 1989, Vikner 1995, Tortora 1997, 2014, Cardinaletti 2004, Lahousse 2006, Sheehan 2010).

- Are there any general or widespread semantic and pragmatic constraints on postverbal subjects?

From an information-structure viewpoint, preverbal subjects correlate with the discourse role of topic, whereas postverbal subjects are typically foci (Lambrecht 1994, Belletti 2004). Postverbal subjects may abide by definiteness constraints (Belletti 1998, Pinto 1997), which have both information-structure and semantic correlates (Bentley 2013). The semantics of the predicate, in particular the type of eventuality or the *Aktionsart* that it expresses, also plays a crucial role, as is evidenced by the investigation of unaccusativity (Permultter 1978, Burzio 1986, Levin & Rappaport Hovav 1995, Parry 2007, Bentley 2016) and, more generally, of avalent and low-agentivity predicates.

- Does the postverbal DP of constructions that disallow preverbal subjects exhibit the same properties as non-canonical postverbal subjects?

Subject inversion is typical of sentence types that require a specific word order (e.g. interrogative sentences; see Torrego 1984). Preverbal subjects are also disallowed in specific constructions such as *there*-existentials (see Bentley, Ciconte, Cruschina 2015), or locative and negative inversion (Bresnan & McChombo 1987, Coopmans 1989, Haegeman 2000, Marten & van der Wal 2014). The question of whether the postverbal DP of these constructions shares the same properties as postverbal subjects elsewhere is worth investigating.

- Does the acquisition of non-canonical postverbal subjects differ from that of preverbal subjects?

Several studies have suggested that certain behavioural subject properties are acquired earlier than coding subject properties (Cole et al. 1980). More recently, the comparison between languages with rigid and flexible word order has led to the design of experiments targeting the production and interpretation of postverbal subjects in acquisition (see Belletti, Bennati & Sorace 2007, Belletti & Guasti 2015). Further work on the principles that govern the acquisition of non-canonical postverbal subjects is desirable.

- Is the non-canonicality of postverbal subjects limited to languages with predominant SVO order?

A broader issue is whether the semantic and pragmatic properties, as well as the coding and behaviour, mentioned above are at all shared by postverbal subjects in languages with word-order typologies other than SVO, as well as by the postverbal argument in intransitive constructions of languages which offer little or no evidence for the subject.

We accept submissions that contribute to the description, discussion, and analysis of these and other issues concerning non-canonical postverbal subjects, both from an Indo-European and a non-Indo-European perspective. We welcome contributions from all frameworks and approaches, including synchronic, diachronic, data-driven, corpora, discourse, typological, and theoretical analyses.

References

Aikhenvald, Alexandra, Robert Dixon & Masayuki Onishi (eds) (2001). *Non-Canonical Marking of Subjects and Objects.* Amsterdam: John Benjamins.

Anderson, Stephen R. (1976). On the notion of subject in ergative languages. In *Subject and Topic*, ed. by Charles N. Li, 1–23. New York: Academic Press.

Barðdal, Jóhanna & Thórhallur Eythórsson (2003). The change that never happened: the story of the oblique *subjects*. *Journal of Linguistics* 39: 439–472.

Barðdal, Jóhanna & Thórhallur Eythórsson (2009). The origin of the oblique-subject construction: an Indo-European comparison. In *Grammatical Change in Indo-European Languages*, ed. by Vit Bubenik, John Hewson & Sarah Rose, 179–193. Amsterdam.

Barðdal, Jóhanna (2006). Construction-specific properties of syntactic subjects in Icelandic and German. *Cognitive Linguistics* 17: 39–106.

Belletti, Adriana (1988). The case of unaccusatives. *Linguistic Inquiry* 19: 1–34.

Belletti, Adriana (2004). Aspects of the Low IP area. In *The Cartography of Syntactic Structures, vol. 2: The Structure of CP and IP*, ed. by Luigi Rizzi, 14–65. Oxford: Oxford University Press.

Belletti, Adriana, Elisa Bennati & Antonella Sorace (2007). Theoretical and developmental issues in the syntax of subjects: evidence from near-native Italian. *Natural Language and Linguistic Theory* 25: 657–689.

Belletti, Adriana & Maria Teresa Guasti (2015). *The Acquisition of Italian: Morphosyntax and its interfaces in different modes of acquisition*. Amsterdam: John Benjamins.

Bentley, Delia (2013). Subject canonicality and definiteness effects in Romance *there* sentences. *Language* 89: 675–712.

Bentley, Delia, Francesco Maria Ciconte & Silvio Cruschina (2015). *Existentials and Locatives in Romance Dialects of Italy*. Oxford: Oxford University Press.

Bentley, Delia (2016). Grammaticalization of subject agreement on evidence from Italo-Romance. Ms., The University of Manchester.

Bhaskararao, Peri & Venkata Subbarao (eds) (2004). *Non-Nominative Subjects*. Amsterdam: John Benjamins.

Bickel, Balthasar (2011). *Grammatical Relations Typology.* In *The Oxford Handbook of Language Typology*, ed. by Jae Jung Song. 399–444. Oxford: Oxford University Press.

Bossong, Georg (1998). Le marquage de l' expérient dans les langues d' Europe. In *Actance et Valence dans les Langues de l'Europe*, ed. by Jack Feuillet, 259–294. Berlin/New York: De Gruyter.

Bresnan, Joan & Sam A. Mchombo (1987). Topic, pronoun and agreement in Chichewa. *Language* 63: 741–782.

Burzio, Luigi (1986). *Italian Syntax: A government-binding approach*. Dordrecht: Reidel.

Cardinaletti, Anna (2004). Toward a cartography of subject positions. In *The Structure of CP and IP, The Cartography of Syntactic Structures, Volume 2*, ed. by Luigi Rizzi, 115–165. Oxford/New York: Oxford University Press.

Cennamo, Michela & Claudia Fabrizio (in press), Non-nominative arguments, active impersonals and control in Latin. In *Diachronic Typology of Voice and Valency-Changing Categories*, ed. by L. Kulikov, S. Kittilä & I. Seržant. Amsterdam: John Benjamins.

Cennamo, Michela (2011). Case marking of core arguments and alignment in Late Latin. In *Grammatical Case in the Languages of the Middle East and Europe*, ed. by Michèle Fruyt, Michel Mazoyer & Dennis Pardee, 297–314. Chicago: The University of Chicago Press.

Chomsky, Noam (1981). *Lectures on Government and Binding*. Dordrecht: Foris.

Chomsky, Noam (1986), *Knowledge of Language.* New York: Praeger.

Cole, Peter, William Harbert, Gabriella Hermon & Shikaripur N. Sridhar (1980). The acquisition of subjecthood. *Language* 56: 719–743.

Comrie, Bernard (1973). The Ergative: Variations on a Theme. *Lingua* 32: 239–253.

Coopmans, Peter (1989). Where stylistic and syntactic processes meet: Locative inversion in English. *Language* 65: 728–51.

Corbett, Greville (2006) *Agreement*. Cambridge: Cambridge University Press.

Dryer, Matthew S. (1997). Are grammatical relations universal? In *Essays on Language Function and Language Type Dedicated to T. Givón*, ed. by Joan Bybee, John Haiman & Sandra A. Thompson, 117–143. Amsterdam: John Benjamins.

Fabrizio, Claudia (in press). Non-nominative subjects in Latin. In *Ṛtamanas-, Ṛtavacas-, Ṛtadipi-* – 'Of Right Thoughts, Right Speech, Right Writings'. Studies in Honor of Rüdiger Schmitt*, ed. by K. Stüber & V. Sadovski, Vienna: Austrian Academy of Sciences Press.

Falk, Yehuda N. (2006). *Subjects and Universal Grammar. An explanatory theory*. Cambridge: Cambridge University Press.

Farrell, Patrick (2005). *Grammatical Relations*. Oxford University Press.

Fassi Fehri, Abdelkader (1993). *Issues in the Structure of Arabic Clauses and Words*. Dordrecht: Kluwer.

Grewendorf, Günther (1989). *Ergativity in German*. Dordrecht: Foris.

Haegeman, Liliane (2000). Negative preposing, negative inversion and the split CP. In *Negation and Polarity*, ed. by Laurence R. Horn & Yasuhiko Kato, 21–61. Oxford: Oxford University Press.

Keenan, Edward (1976). Towards a universal definition of 'subject'. In *Subject and Topic*, ed. by Charles N. Li, 303–334. New York: Academic Press.

Lahousse, Karen (2006). NP subject inversion in French: two types, two configurations. *Lingua* 116: 424–461.

Lambrecht, Knud (1994). *Information Structure and Sentence Form: Topic, Focus, and the Mental Representation of Discourse Referents*. Cambridge: Cambridge University Press.

LaPolla, Randy (1993). Arguments against 'subject' and 'direct object' as viable concepts in Chinese. *Bulletin of the Institute of History and Philology* 63.4: 759-813.

Lehmann, Christian (1982). Universal and Typological Aspects of Agreement. In Hansjakob Seiler and Franz Joseph Stachowiak (eds.), *Apprehension. Das sprachliche Erfassen von Gegenständen*. Teil II. *Die Techniken und ihr Zusammenhang in der Einzelsprachen*. Tübingen: Gunter Narr (LUS, 1, II), 201–267.

Levin, Beth & Rappaport Hovav, Malka (1995). *Unaccusativity: At the Syntax– Lexical Semantics Interface*. Cambridge, Mass.: The MIT Press.

Marten, Lutz & Jenneke van der Wal (2014). A typology of Bantu subject inversion. *Linguistic Variation* 14: 2318–368.

Moravcsik, Edith. 1978. Agreement. In Joseph Greenberg (ed.), *Universals of Human Language*, vol. 4, 331–374. Stanford, Cal.: Stanford University Press.

Ouhalla, Jamal (1994). Verb movement and word order in Arabic. In *Verb Movement,* ed. by David Lightfoot David & Norbert Hornstein, 41–72. Cambridge: Cambridge University Press.

Perlmutter, David (1978). Impersonal passives and the unaccusative hypothesis. *Berkeley Linguistic Society* 4: 157–89.

Pinto, Manuela (1997). *Licensing and interpretation of inverted subjects in Italian*. Utrecht: Utrechts Instituut voor Linguistiek (UiL OTS).

Rizzi, Luigi (1982). *Issues in Italian Syntax*. Dordrecht: Foris.

Samek-Lodovici Vieri (2002). Agreement impoverishment under subject inversion: A crosslinguistic analysis. In *Resolving Conflicts in Grammar*, ed. by Fanselow Gisbert & Caroline Féry. *Linguistiche Berichte Sonderheft* 11: 49–82.

Sasse, Hans-Jürgen (1978). Subjekt und Ergativ: Zur pragmatischen Grundlage primärer grammatischer Relationen. *Folia Linguistica* 12: 219–252.

Seržant, Ilja A. & Leonid Kulikov (eds) (2013). *The Diachrony Typology of Non-canonical Subjects*. Amsterdam: John Benjamins.

Sheehan, Michelle (2010). 'Free' inversion in Romance and the Null Subject Parameter. In *Parametric Variation: Null Subjects in Minimalist Theory*, by Theresa Biberauer, Anders Holmberg, Ian Roberts & Michlle Sheehan, 231–262. Cambridge: Cambridge University Press.

Torrego, Esther (1984). On inversion in Spanish and some of its effects. *Linguistic Inquiry* 15: 103–129.

Van Valin, Robert D. Jr. (1981). Grammatical relations in ergative languages. *Studies in Language* 5: 361–394.

Van Valin, Robert D. Jr. (2005). *Exploring the Syntax–Semantics Interface*. Cambridge: Cambridge University Press.

Van Valin, Robert Jr. & Randy LaPolla (1997). *Syntax. Structure, meaning and function*. Cambridge: Cambridge University Press.

Vikner, Sten (1995). *Verb Movement and Expletive Subjects in the Germanic Languages*. Oxford/New York: Oxford University Press.

Two types of postverbal subjects

Manuel Leonetti

(Universidad de Alcalá)

In null-subject SVO languages like Spanish, Catalan and Italian, the possibility of having subject DPs in postverbal position is a basic property of the grammatical system. However, postverbal subjects do not exhibit the same behaviour in all contexts. Only in some cases of subject inversion do so-called "non-canonical subject" properties appear. Relevant questions, thus, arise concerning the nature of the factors underlying this difference.

Taking Spanish as the primary source of evidence, one could wonder why the subject DPs in the examples in 1) are not focal and show typical subject properties (for instance, they can be omitted without any significant change in the overall interpretation), whereas the subject DPs in 2) are always focal and lack at least some of their basic subject properties (if they were omitted the interpretation would clearly change):

1) a. ¿Qué libros   ha   comprado **ella**?
       what books have.prs.3sg   bought   she
    b. LIBROS   DE CINE ha   comprado   **ella**.
       books   of cinema have.prs.3sg bought   she
    c. Bastantes libros se ha   comprado ya   **ella**.
       enough   books cl have.prs.3sg   bought   already   she

2) a. Ha   ocurrido **una desgracia**.   (≠ Ha ocurrido.)
       Have.prs.3sg happened a   misfortune
    b. Ha   ganado la   plaza **ella**. (≠ Ha ganado la plaza.)
       have.prs.3sg won   the post   she

My claim is that the contrast between 1) and 2), and ultimately the whole behaviour of postverbal subjects in null-subject SVO languages, can only be explained if two scenarios are distinguished:

1. The subject is forced to occur in postverbal position because another constituent –crucially, a 'non-topic'- has been fronted. Subject postposition is here compulsory and devoid of any interpretive load. The central cases are *wh*-interrogatives, Focus Fronting and Non-Focal Fronting, as shown in 1) (cf. Leonetti forthcoming). The subject is NOT interpreted as focal, since its position is a consequence of a purely syntactic requirement: the default mechanism that creates focus structure is overridden, and the postverbal position is not associated to a focal reading.

2. The subject occurs in postverbal position because the speaker intends to present it as focal information. This is the case of existential / presentative sentences and unaccusative constructions (cf. 2)a), and also of 'free' subject inversion, as in 2)b. Some kind of *stage topic* –explicit or null- can be assumed to occur in preverbal position (Lahousse 2011). Here, the presence of the stage topic forces subject inversion, and inversion counts as focus marking, contrary to what happens in the first scenario. The crucial difference seems to lie in the presence of a topical element in the preverbal slot in situation 2 (cf. Marten & van der Wal 2014 for related facts in Bantu inversion).

Once these two situations are distinguished, a generalization can be reached: "non-canonical subject" properties such as definiteness constraints, the acceptability of bare nominals as subjects, the exclusion of null pronouns, and presumably agreement impoverishment, are licensed only when postverbal subjects are focal, i.e. in the second situation. On this perspective, non-canonicality is clearly dependent on information structure. The approach fits in a model of formal grammar in which syntax and information structure are viewed as two independent components of the grammatical system.

References

Lahousse, K. (2011). *Quand passent les cigognes. Le sujet nominal postverbal en français moderne*. Paris: Presses Universitaires de Vincennes.

Leonetti, M. forthcoming. Basic constituent orders. In E. Stark & A. Dufter (eds.). *Morphosyntax and Syntax*. Berlin: De Gruyter.

Marten, L. & J. van der Wal (2014). A typology of Bantu subject inversion. *Linguistic Variation* 14.2, 318-368.

Syntactic and prosodic effects of long-distance wh-movement in Italian

Valentina Bianchi, Giuliano Bocci, & Silvio Cruschina
(University of Siena; University of Geneva; & University of Vienna)

In this paper discuss postverbal subjects in Italian interrogatives. We show that, in this context, subject inversion is not determined by the information-structural constraints that operate in declarative clauses (see Pinto 1997, Belletti 2004); it is rather the consequence of a purely syntactic mechanism, successive cyclic wh-movement.

In Italian, subjects cannot intervene between a bare wh-element and the verb, but must occur postverbally:

(1)   *Che cosa   (*<u>Carlo)</u>   ha   detto   <u>Carlo?</u>*
         what thing   Carlo   has   said   Carlo

'What did Carlo say?'

Different accounts have been proposed focusing mainly on simple wh-questions (e.g. Rizzi 1996, Cardinaletti 2007). However, Calabrese (1982) pointed out that also in case of long distance wh-movement from an embedded to the matrix clause, the embedded subject must be postverbal (see also Torrego 1984 on Spanish):

(2)   *Che cosa*   *le*   *hai*   *detto*   *che*   *(??<u>Carlo)</u>*   *ha*   *fatto*   *Carlo?*
      what thing   her.dat have.2sg   said   that   (Carlo) has   done   Carlo
      'What did you say Carlo has done?'

We provide supporting evidence from a forced-choice experiment, where participants had to express preference for the pre- or post-verbal placement of the embedded subject in short and long-distance direct wh-questions. The results show that subject inversion is obligatory in the embedded clause of complex wh-questions like (2b), much as in (1).

In addition, we report the results of a production experiment (read speech) showing that in cases of long-distance movement, the main prosodic prominence is typically realized on the *embedded clause verb* (or, alternatively, on the matrix verb), cf. (3a). On the contrary, in cases of short-distance wh-movement, where the wh-phrase originates in the matrix clause, the main prominence cannot fall on the embedded verb, but only on the matrix verb, cf. (3b):

(3)   a. [$_{CP}$ A chi   ti   ha [$_{vP}$ detto [$_{CP}$ che   hanno   [$_{vP}$ ru**ba**to *t* la   macchina]]]]?
          to who   you.dat have.3sg said   that   have.3pl   stolen   the car?
          'From whom did s/he tell you they stole the car?'
     b. [$_{CP}$ A chi   hai [$_{vP}$ **det**to   *t* [$_{CP}$ che   ti   hanno   [$_{vP}$ rubato la macchina]]]]?
          to who   have.2sg said   that   you.dat   have.3pl   stolen the car?
          'To whom did you tell to that your car was stolen?'

We propose that the placement of the main prominence tracks the syntactic dependency of the wh-phrase. Specifically, the wh-phrase shares its wh/focal feature with the verbal and C° (phase) heads intervening between the extraction site (*t*) and the final landing site; the bare wh-phrase, being a functional element, tends to resist assignment of the main prominence; hence, the wh/focal feature is prosodically realized on the lexical verb hosted in v°, as soon as the wh-phrase moves to the edge of vP on its way to its final position.

On the syntactic side, we propose that the wh/focal feature – on the main C° in (1) and on both the main and the embedded C° in (2) – inhibits the feature/projection that licenses a preverbal subject (cf. Rizzi & Shlonsky 2007): therefore, the subject must remain in a low position.

References

Belletti, Adriana (2004). Aspects of the Low IP area. In *The Cartography of Syntactic Structures, vol. 2: The Structure of CP and IP*, ed. by Luigi Rizzi, 14–65. Oxford: Oxford University Press.

Calabrese, Andrea (1982). Alcune ipotesi sulla struttura informazionale della frase in Italiano e sul suo rapport con la struttura fonologica. *Rivista di Grammatica Generativa* 7: 3–78.

Cardinaletti, Anna (2007). Subjects and wh-questions. Some new generalizations. In J. Camacho et al. (eds), *Romance Linguistics 2006: Selected papers from the 36th Linguistic Symposium on Romance Languages (LSRL), New Brunswick, March 31-April 2, 2006*. John Benjamins, 57–79.

Pinto, Manuela (1997). *Licensing and interpretation of inverted subjects in Italian*. Utrecht: Utrechts Instituut voor Linguistiek (UiL OTS).

Rizzi, Luigi (1996). Residual Verb-second and the Wh-criterion. In Adriana Belletti & Luigi Rizzi (eds), *Parameters and Functional Heads. Essays in Comparative Syntax*. Oxford/New York: Oxford University Press, 63–90.

Rizzi, Luigi and Shlonsky, Ur. (2007). Strategies of Subject Extraction. In H.-M.Gärtner and U. Sauerland (eds), *Interfaces + Recursion = Language? Chomsky's Minimalism and the View from Syntax-Semantics*. Berlin: Mouton de Gruyter, 115-160.

Torrego, Esther (1984). On inversion in Spanish and some of its effects. *Linguistic Inquiry* 15: 103–129.

Revisiting the cartography of (Italian) post-verbal subjects from different angles

Adriana Belletti

(University of Geneva/University of Siena)

The main aim of the presentation will be to review and refine the cartographic analysis of post-verbal subjects (Belletti 2004, 2009) in Italian. New comparative considerations and analyses will also be brought into the picture on the nature of preverbal overt or null subjects in their relation with topics, in young children and adults (Manetti and Belletti 2016). The research questions raised in the talk will thus mainly focus on two areas of the workshop proposal: (i) Are there general or widespread semantic and pragmatic constraints on post-verbal subjects? (ii) Does the acquisition of non-canonical subjects differ from that of preverbal subjects?

On the basis of findings from both acquisition and language description, I will illustrate some crucial discourse properties of clauses containing post-verbal subjects, with main evidence coming from Italian. Experimental results from both monolingual and (adult)-L2 acquisition (Belletti and Guasti 2015, chapter 7) have indicated an early mastery by young children – but only partly so by L2 speakers – of the complex interrelation between the syntactic constraints regulating the distribution of post-verbal subjects and their discourse related interpretation.

Thus, from very early on children appear to know that post-verbal subjects (typically) express the focus of new information in the clause, or are part of a whole-new clause. Similarly, young children show an early mastery of preverbal (null and overt) subjects, as indicated in a number of different experimental settings involving both production and comprehension.

Experimental results also indicate an early mastery of the constraint on (in-)definiteness conditioned by the nature of the lexical verb, whether unaccusative or unergative, as is illustrated for instance by children's different reaction in repetition experiments (Vernice and Guasti 2014. *Cosa succede? Esce un orsetto//??l'orsetto con i suoi amici - /*What happens? Comes out a bear//the bear with his friends vs ?*Passeggia un orsetto con i suoi amici/ Walks a bear with his friends. See Belletti 1988, Belletti and Bianchi 2016, Vernice and Guasti 2014, Lorusso 2014).

The comparative issue of answering strategies to subject questions will also be taken up with comparative considerations from French in which, as also discussed in previous work, subject questions may receive a (reduced) cleft answer: the relation between post-verbal subjects of the Italian type and subject clefts of the French type will be reconsidered in relation with the cartography of these apparently unrelated syntactic structures, which may in fact be closely related as far as discourse conditions and their syntactic realization(s) are concerned. Furthermore, new recently collected results on answering strategies from heritage speakers of Italian (Caloi, Belletti, Poletto 2016) will also be

mentioned as a further contribution toward a precise characterization of the syntactic properties of the discourse related structures with a post-verbal subject. This rich array of results from different populations in similar syntactic and discourse conditions contribute to further refining the shape and the role of the low periphery of the clause, directly implicated in the syntax and interpretation of post-verbal subjects, and the ways in which different languages and different populations may exploit it.

References

Belletti A. (1988). The Case of Unaccusatives. *Linguistic Inquiry*, vol. 19, p. 1-34,

Belletti A. (2004). Aspects of the low IP area.. In: Rizzi,L. (ed.). The Structure of CP and IP. p. 16-51, New York:Oxford University Press

Belletti, A. (2009). *Structures and Strategies*. New York: Routledge

Belletti, A. & M. T. Guasti, 2015. *The Acquisition of Italian. Morphosyntax and its interfaces in different modes of acquisition*, Language Acquisition and Language Disorders series /LALD series, John Benjamins Publishing Company, pp. 326

Belletti, A. & V. Bianchi. 2016. Definiteness Effect and Unaccusative Subjects: An Overview and some New Thoughts. In *Definitness effects: Bilingual, typological and diachronic variation*. S.Fischer, T.Kupisch, E.Rinke (eds.). Cambridge Scholars Publishing, 14-65

Caloi, I., A.Belletti, C.Poletto Answering strategies in Italian: a comparison between adult heritage speakers and attrited L1 speakers, ms. in preparation University of Frankfurt-University of Geneva

Lorusso, P. 2014. *Verbs in Child Grammar. The Acquisition of the Primitive Elements of the VP at the Syntax-Semantics Interface.* PhD dissertation Universitat Antònoma de Barcelona

Lorusso, P., Caprin, C. & Guasti, M.T. 2005. Overt Subject Distribution in Early Italian Children. *Supplement Proceeding of Boston University Conference on Language Development.* http://www.bu.edu/linguistics/APPLIED/BUCLD.

Manetti, C. & A. Belletti (2016) Topics and passives in Italian speaking children and adults, talk given at Romance Turn, September 2016, Autònoma University of Barcelona

Vernice, M. & Guasti, M.T. 2014. The acquisition of SV order in unaccusatives: manipulating the definiteness of the NP argument. *Journal of Child Language* Published online: DOI: 10.1017/S0305000913000536.

Non-canonical postverbal subjects in Italian

Anna Cardinaletti

(Università Ca' Foscari Venezia)

It is widely discussed in the literature that pro-drop languages like Italian "freely" allow for postverbal subjects in any type of sentence, their occurrence being discourse-motivated – new information (Belletti 2001), and often correlated with prosodic focus (we disregard, for the time being, destressed postverbal subjects, Antinucci and Cinque 1977; Cardinaletti 2001, 2002; Belletti 2004). In Italian (and most Italian dialects), postverbal subjects do not display any definiteness effect and any restriction on their form, the only restriction being that weak (and clitic) pronouns are disallowed in that position, due to independent properties of these pronouns (Cardinaletti and Starke 1999).

Two properties of Italian varieties are however less well-known.

First, in some varieties of Italian, new-information subjects do not need to occur postverbally and may occur preverbally. The difference between Italian and these varieties will be briefly discussed.

Second, and most relevant to the workshop, in a number of constructions of Italian where the preverbal position is occupied by different material (locatives, fronted objects, etc.), the subject *obligatorily* occurs in postverbal position and displays restrictions not otherwise displayed:

(i) since the postverbal distribution is obligatory, it is not required by discourse motivations; the sentence has a pretty identical discourse equivalent with a canonical order;

(ii) subject-verb agreement is obligatory even in those Italian varieties which allow lack of subject-verb (number) agreement with postverbal subjects;

(iii) the postverbal subject must be heavy; it cannot however be a clause;

(ii) subject extraction is not allowed (while the subject usually extracts from the postverbal subject position in pro-drop languages, Rizzi 1982);

(v) the subject cannot be marginalized, though it can be right-dislocated.

It is worth noting that many of these restrictions are shared with English Locative Inversion and Comparative Inversion (cf. Culicover and Levine 2001, Rizzi and Shlonsky 2006), where a locative or comparative phrase is fronted and the subject occurs in postverbal position, but are not shared with other Italian constructions which display a fronted non-subject and a postverbal subject, e.g. *wh*-questions.

The paper will discuss the semantic, syntactic, and prosodic properties of this particular instance of non-canonical postverbal subjects in comparison with other Italian constructions in which the subject *preferably* occurs in postverbal position, e.g. *wh*-questions, focalizations, left-dislocations, relative clauses, etc.

The analysis will take into account (i) the properties of the lowest head of the left-periphery of the clause (FinP), targeted by the fronted material; (ii) the syntactic and phonological properties of heavy phrases, and (iii) the properties of marginalized subjects.

References

Antinucci F. and Cinque G. 1977. Sull'ordine delle parole in italiano: l'emarginazione. *Studi di grammatica italiana* 6: 121-146.

Belletti A. 2001. Inversion as Focalization. In *Subject Inversion in Romance and the Theory of Universal Grammar*, A. Hulk and J.-Y. Pollock (eds), 60-90, OUP.

Belletti A. 2004. Aspects of the low IP area. In L. Rizzi (ed.) *The Structure of CP and IP. The Cartography of Syntactic Structures, Volume 2*. OUP, 16-51.

Cardinaletti A. 2001. A second thought on *emarginazione*: Destressing vs. "Right Dislocation". In G. Cinque and G. Salvi (eds), *Current Studies in Italian Syntax. Essays Offered to Lorenzo Renzi*. Elsevier, 117-135.

Cardinaletti A. 2002. Against optional and zero clitics. Right Dislocation vs. Marginalization. *Studia Linguistica* 56: 29-57.

Cardinaletti A. and Starke M. 1999. The typology of structural deficiency, in H. van Riemsdijk (ed), *Clitics in the Languages of Europe. EALT/EUROTYP 20-5*. Berlin: Mouton de Gruyter, 145-233.

Culicover P.W. and Levine R.D. 2001. Stylistic inversion in English: A reconsideration. *Natural Language and Linguistic Theory* 19: 283-310. Rizzi L. 1982. *Issues in Italian Syntax*. Dordrecht: Foris.

Rizzi L. and Shlonsky U. 2006. Satisfying the Subject Criterion by a non subject: English Locative Inversion and Heavy NP Shift. In M. Frascarelli (ed.) 2006. *Phases of interpretation*. Mouton, 341-361.

VS word order in French: new arguments in favor of an old analysis

Karen Lahousse

(University of Leuven)

VS word order in (written) French occurs in contexts as (1):

(1)   a.   *Alors est arrivé un homme.* (lit. Then has arrived a man.)
           b.   *Quand partira ton ami?* (lit. When will-leave your friend?)
           c.   *Ainsi écrivait Alexandre* (lit. In-this-way wrote Alexandre.)

Three syntactic analyses have been proposed for or could be extended to French VS:

HYPO A   low ("traditional") analysis (Déprez 1988; Valois & Dupuis 1992; Longobardi 2000)
                  [$_{IP}$ [$_{I°}$ **verb**] [$_{SpecVP}$ **subject** [$_{V°}$ t$_{verb}$] [$_{YP}$]]]

HYPO B   left-peripheral (remnant movement) analysis (Kayne & Pollock 2001)
                  [$_{Left Periphery}$ *[$_{IP}$ t$_{subject}$ [$_{I°}$ **verb**]]*] [$_{FP}$ **subject** [$_{F°}$] t$_{IP}$]]

HYPO C   vP-peripheral analysis (Belletti 2004/2009)
            a.   [$_{IP}$ [$_{I°}$ **verb** [$_{SpecFoc}$ **subject**] [$_{vP}$ t$_{subject}$ t$_{verb}$ …]]]
            b.   [$_{IP}$ [$_{I°}$ **verb** [$_{SpecTop}$ **subject**] [$_{vP}$ t$_{subject}$ t$_{verb}$ …]]]

We revise old and provide new arguments in favor of hypothesis A and against B and C:

I.   **Evidence on quantifier float (QF)** in VS (typically alleged by proponents of A) concerns *leftward* FQs and does not tell anything about the position of S. However, it argues against remnant movement of IP (contra B). Moreover, new data on *rightward* QF (2) indicates that the subject stays in base-generation position (pro A; contra B and C).

II.   **The licensing elements of VS** (3) satisfy (whatever version of) EPP, since they also alternate with impersonal *il* in impersonal passives (see Kayne and Pollock 1978) (4) (against B)

III.   The **information partitions of VS** (3) show that its interpretation is not determined by that of S *alone*. This goes against accounts based on the movement of S *alone* to a peripheral projection (contra B and C).

IV.   **Data on V-S agreement** (5) will be argued to prove that the S did not move through the preverbal subject position (contra B).

V.   **Data on the relative position of the postverbal S and adverbs or complements** will be shown to argue against remnant movement of IP (contra B).

(2)   ** Ainsi écrivent <u>les grands auteurs</u> (presque) <u>tous</u>*
       Lit. In-this-way write the big authors (almost) all.

(3)   a.   <$_{topic}$ stage topic> <$_{new info focus}$ VS> ~ (1a)
       b.   <$_{wh/focus}$ X > <$_{background}$ VS >~ (1b-c)

(Lahousse 2011)

(4)   *Il / * Ø / Quand / Alors / Ainsi sera procédé au réexamen de cette question.*
         lit. It / * Ø / when / then / in that way will be proceeded to the reexamination of this question.

(5)   ** L'aventure que vivez*2P *Marie et toi*2P *fait scandale.*
         lit. The adventure that live2p Mary and you2p is scandalous.

This has far-reaching consequences for language comparison: to the extent that the licensing contexts of French VS (3) are a subset of those of Spanish and Italian, and the structure of VS is presumably the same, the different behavior of VS in these languages cannot be seen as the consequence of a different parameter setting. Given independent criticism on the pro-drop parameter, this is a welcome conclusion.

References

Belletti, A. 2004."Aspects of the low IP area", in *The Structure of CP and IP*, L.Rizzi ed., 16-51, 2004, Oxford University Press.

Belletti, A. 2009. *Structures and Strategies* ("Answering strategies: New information subjects and the nature of clefts", chapter 10), New York: Routledge.

Déprez, V. 1988. Stylistic inversion and verb movement. In *Proceedings of the Fifth Eastern States Conference on Linguistics*. Columbus: Ohio State University. 71-82.

Kayne, R., Pollock, J.-Y., 1978. Stylistic inversion, successive cyclicity, and move NP in French. Linguistic Inquiry 9, 595-621.

Kayne, R. & Pollock, J.-Y. 2001. New thoughts on stylistic inversion. In A. Hulk & J.-Y. Pollock, eds. *Subject inversion in Romance and the theory of Universal Grammar*. Oxford: Oxford University Press. 107-161.

Lahousse, K. 2011. Quand passent les cigognes. Le sujet nominal postverbal en français moderne. Presses Universitaires de Vincennes.

Longobardi, Giuseppe. 2000. *"Postverbal" subjects and the mapping* hypothesis. Linguistic Inquiry 31, 691-702.

Valois, D. & Dupuis, F. 1992. On the status of (verbal) traces in French, the case of stylistic inversion. In P. Hirschbuhler & K. Koerner, eds. *Romance languages and modern linguistics theory* 91. Amsterdam-Philadelphia: John Benjamins. 325-338.

Postverbal subjects and definiteness in Xhosa

Eva-Marie Bloom Ström
(University of Gothenburg)

The Bantu language Xhosa allows for a range of constructions in which the subject is in post-verbal position rather than in the canonical pre-verbal position. A distinction exists between post-verbal subjects that follow the verb in a close bond with the verb (as evidenced by prosody and the form of the verb), and those that are dislocated out of the verb phrase. The subject in immediately after verb (IAV) is not the topic, i.e. it is in focus or there is presentational focus. In such constructions, there is a default subject of (the locative) noun class 17:

> *Ku-fik-é i-ncwadi*
> 17sa-arrive-conj1 9-9letter
> '(it was) a letter (that) arrived.' (Carstens and Mletshe 2015: 188)

The dislocated post-verbal subjects, on the other hand, are topics. The concept denoted by the subject is semi-active, i.e. it has been mentioned previously in the text or it can be inferred from the context:

> *li-ya-súkû:ma i:zim*
> 5sm-djt-stand.up 5.giant
> 'the giant stands up'

Recent research (Bloom Ström 2017) has shown that Xhosa also exhibits another verb-subject construction with the subject in IAV. This type of construction is referred to as agreeing inversion and has not been previously reported for Xhosa (Marten and van der Wal 2014). Here, the verb agrees in noun class with the post-verbal subject:

> *lâ:-tshona   ilanga*
> 5sm.pst-set 5.sun
> 'The sun set.'

Only the thetic reading is found in the data, which consists of a collection of transcriptions of spoken language from different parts of the Eastern Cape in South Africa. The agreeing inversion construction occurs in recorded narratives. This paper will address the semantic and pragmatic constraints on default agreeing inversion (example 0) and agreeing inversion (example 0) and explore the information structural contexts of the two constructions as well as constraints on the post-verbal subjects. It will analyse the definiteness effects of the different verb-subject constructions. Xhosa does not have (in) definite articles and it is likely that word order is one of the cues to definiteness in the language. The connection between word order and definiteness has been suggested for some Bantu languages (Nobuko 2011) but this is still an under researched area. In fact it is still unknown how definiteness is coded in general in the language family, although recent years have seen some attempts to solve the puzzle in individual languages (Mojapelo 2007; Visser 2008; Asiimwe 2014). On basis of the examples found in the data, it can be argued that the agreeing inversion in 0 is restricted to subjects that are identifiable based on the larger situation context (Hawkins 1978), also referred to as general knowledge (Lyons 1999). The paper will pursue this hypothesis and present further evidence and data.

References

Asiimwe, Allen. 2014. Definiteness and specificity in Runyankore-Rukiga. Doctoral disseration. Stellenbosch: Stellenbosch University.

Bloom Ström, Eva-Marie. 2017. 'What the giant tells us about agreeing post-verbal subjects in Xhosa'. Stellenbosch papers in linguistics Plus 52:73-100.

Carstens, Vicki and Loyiso Mletshe. 2015. 'Radical Defectivity: Implications of Xhosa Expletive Constructions'. Linguistic Inquiry 46:187-242.

Hawkins, John A. 1978. *Definiteness and indefiniteness: a study in reference and grammaticality prediction*. London: Croom Helm.

Lyons, Christopher. 1999. *Definiteness*. Cambridge: Cambridge University Press.

Marten, Lutz and Jenneke van der Wal. 2014. 'A typology of Bantu subject inversion'. Linguistic variation 14:318–68.

Mojapelo, Mampaka L. 2007. Definiteness in Northern Sotho. Doctoral dissertation. Stellenbosch: University of Stellenbosch.

Nobuko, Yoneda. 2011. 'Word order in Matengo (N13): Topicality and informational roles'. Lingua 121:754-71.

Visser, Marianna W. 2008. 'Definiteness and Specificity in the isiXhosa Determiner Phrase'. South African journal of African languages 28:11-29.

Information structure affecting neg-concord with post-verbal subjects

Vieri Samek-Lodovici

(University College London)

Italian n-words below T, including postverbal negative subjects in specVP (1), are licensed under c-command. C-command cannot hold under reconstruction (2) (Zanuttini 1991, Penka 2011).

(1) $Non_{Licenser}$ ha bevuto $nessuno_{Licensee}$.
        Not   has drunk anybody
        'Nobody drank'

 (2)   * [Nessun articolo di CHI]$_i$ non hai letto t_i ?
        No article of whom   (you) not have read

Presentational focus affects the licensing of following postverbal subjects. Negative subjects are licensed when preceding focus (3), when themselves focused (4), but not when following focus (5). Since the 'object>subject' order of (5) is also found in (4), it cannot cause the ungrammaticality of (5).

(3)   Q: What did nobody watch?   A: Non ha guardato nessuno il $FILM_{Focus}$.
                                            Not has watched anybody the film
                                            'Nobody watched the FILM'

(4)   Q: Who watched the film?   A: Non ha guardato il film $NESSUNO_{Focus}$.
                                            'NOBODY watched the film'

(5)   Q: What did nobody watch?   A: * Non ha guardato il $FILM_{Focus}$ nessuno.

These data are problematic for the cartographic analysis of Italian presentational focus, which posits a $FocusP_{Low}$ projection between T and VP (Belletti 2001, 2004, Rizzi&Cinque 2016). If the focused object of (5A) moved to $FocusP_{Low}$, then the subject could remain in specVP and be licensed by the c-commanding neg-marker 'non'. The sentence should then be grammatical like its negative-subjects-free counterpart (6). The $FocusP_{low}$ analysis must also stipulate a new position for the subject of (3), since negative phrases are never topics and cannot use the topic projection above $FocusP_{Low}$ proposed by Belletti.

(6)   Q: What did John not watch?   A: Non ha guardato il $FILM_{Focus}$ Gianni.
                                            'John did not watch the FILM'

I will claim that these data support Samek-Lodovici's (2015) claim that focalization occur in-situ and post-focal constituents are either destressed in-situ or right-dislocated above TP.

In (3) the focused object is in-situ and the preceding subject in specVP, with no need to stipulate new problematic positions/projections. In (4), the focused subject is in-situ, while the unfocused object

moves to its left as per Zubizarreta's p-movement (1998), which ensures that stressed foci occur in the canonical location of main stress, which in Italian is clause-rightmost.

The alternation between (5) and (6) also follows. Since the focused object is in-situ, the following subject must necessarily right-dislocate to Samek-Lodovici's clause-external position. This is possible with non-negative 'Gianni', making (6) grammatical, but not with the negative subject of (5), since right-dislocated phrases lie outside the c-command domain of the neg-marker in T, making (5) ungrammatical (remember: licensing is not rescued by reconstruction).

The talk will also refute incorrect alternative accounts. For example, assuming that focalization disrupts neg-concord in (5) is incorrect. As (4) already shows, focused negative subjects are licensed. Licensing also occurs *across* focus provided right dislocation is absent: in (7), the negative indirect object occurs in-situ and is licensed across focus by the c-commanding neg-marker.

(7)   Q: What won't you give to anybody?   A: Non darò un BACIO$_{Focus}$ a nessuno$_{Licensee}$!
                                                         (I) not will-give a kiss to anybody
                                                         'I will not give a KISS to anybody.'

Selected References

Belletti, A., 2001. "Inversion" as focalization, in: Hulk, A., Pollock, J.Y. (Eds.), *Subject Inversion in Romance and the Theory of Universal Grammar*, Oxford Studies in Comparative Syntax. Oxford University Press, Oxford, pp. 60–90.

Belletti, A., 2004. Aspects of the Low IP Area, in: Rizzi, L. (Ed.), *The Structure of CP and IP. The Cartography of Syntactic Structures*, Oxford Studies in Comparative Syntax. Oxford University Press, Oxford, pp. 16–51.

Haegeman, Liliane. 1995. *The Syntax of Negation*. Cambridge University Press.

Penka, Doris. 2011. *Negative Indefinites*. Oxford University Press.

Rizzi, Luigi. 1997. The Fine Structure of the Left Periphery. In Liliane Haegeman (ed.), *Elements of Grammar: Handbook in Generative Syntax*. Dordrecht: Kluwer, 281–337.

Rizzi, Luigi. 2004. Locality and the Left Periphery. In *Structures and Beyond: The Cartography of Syntactic Structures*. Adriana Belletti, ed. Pp. 223–251. Oxford: Oxford University Press.

Rizzi, Luigi, Bocci, Giuliano, 2015. The left periphery of the clause – Primarily illustrated for Italian, to appear in the Blackwell Companion to Syntax, II edition, in: *Blackwell Companion to Syntax*. Blackwell Publishing.

Rizzi, Luigi, and Guglielmo Cinque. 2016. Functional Categories and Syntactic Theory. In *Annual Review of Linguistics*, Vol 2. M. Liberman and B. H. Partee, eds. Pp. 139–163. Palo Alto: Annual Reviews.

Samek-Lodovici, Vieri. 2015. *The Interaction of Focus, Givenness, and Prosody.* Oxford: Oxford University Press.

Zanuttini, Raffaella. 1991. *Syntactic Properties of Sentential Negation. A Comparative Study of Romance Languages*. PhD dissertation. University of Pennsylvania.

Ion Tudor Giurgea

Why Modern Hebrew dative experiencers are not subjects – a typological and constructional approach

Rivka Halevy

(The Hebrew University, Jerusalem)

The status of dative arguments as occupying a subject position is a widely debated topic in linguistics. The paper aims at providing evidence that postverbal Dative Experiencers (d-exp) in Modern Hebrew are not to be regarded as "non-canonical", "quirky" oblique subjects. The morphosyntactic alignment of d-exp constructions in Hebrew differs from the *me-thinks* type in Old and modern Germanic languages. It is contended that the so-called "Object-to-Subject Hypothesis" does not apply for the construction in MH. Furthermore, as will be shown, it also fails standard tests for subjecthood.

MH, as opposed to most IE languages, is not a "reference (or subject) dominant" language. Compare, the empty-subject construction + d-exp in MH, e.g. *kar l-i* (**0**-coldm.sg **to-me**) vs. Eng. *I freeze/am cold;* Fr. *je suis froid.* The d-exp construction in MH express non-volitional experiences or events that are described from an external perspective, i.e., perceived as happening, coming or existing with reference to the person involved , accordingly, the exp is preceded by the dative clitic *l-* alongside ignoring agreement and avoiding SV linearization. For example,

> *ba*   *l-i*   *glida*
> **0**-come.prs.m.sg   dat.pro.1sg   ice-cream.f.sg
> 'I feel like having an ice-cream' [~**a desire** for ice-cream comes to me]

Agreement leveling is ignored, notably in colloquial usage, even in topicalized structures, e.g.,

> *avoda*   *im*   *yelad-im*   *mat'im*   *l-a*   *yoter*
> work.f.sg   with   children   suit.prs.m.sg   dat.pro.3f.sg   more
> 'Working with children suits her more'

The interest of such constructions for alignment typology is manifold: (i) MH does not need to fill the subject position by some overt expletive. Thus, even though the default word order in MH became an SVO it allows encoding of predicate-initial constructions as well as subjectless constructions built upon an invariable predicate in (3rd) m.sg form (incorporating a non-referential personal index), as opposed to subject-oriented languages that require the encoding of an overt and independent subject morpheme; (ii) being a *non-habere* language where possession construction is an extension of the existential construction + a dative marked possessor, MH favors d-exps compared to the preference for agent-like exps in numerous IE languages; (iii) contrary to the *me-thinks* construction, the distribution of the D-EXP construction in MH is much expanded, encompassing cognitive experiences, modals and evaluatives, as well as some type-shift instances consisting of intransitive verbs that are construed as subjective experiences (viz. encoded with a D-EXP).

The paper argues for an inheritance link (in CxG terms) between the possessive construction and the d-exp construction. Apart from being construed from the inverse perspective (cf. Benveniste 1966 regarding *être à* as an inverse perspective of *avoir*), as will be demonstrated, the correlation between them holds also in their morphosyntactic alignment.

References

Benveniste, Émile. 1966. *Problèmes de linguistique générale*. vol.1. Paris: Gallimard.
Berman, Ruth. A. 1980. The case of an (S)VO language: Subjectless constructions in Modern Hebrew. *Language* 56: 759–776.

_____ . 1982. Dative marking of the affectee role: Data from Modern Hebrew. *Hebrew Annual Review* 6: 35-59.

Goldenberg, Gideon. 2013. *Semitic languages: Features, structures, relations, processes.* Oxford: Oxford University Press.

Halevy, Rivka. 2013. Syntax: Modern Hebrew. In Geoffrey Khan (general ed.), *Encyclopedia of Hebrew Language and Linguistics*, vol. 3. 707-723. Leiden: Brill.

Gast, Volker and Florian Haas. 2011. On the distribution of subject properties in formulaic presentationals of Germanic and Romance: A diachronic-typological approach. In Malchukov, Andrej & Siewierska, Anna (eds.), *Impersonal constructions: A cross-linguistic perspective.* 127-166. Amsterdam: John Benjamins.

Kuzar, Ron. 2012. *Sentence Patterns in English and Hebrew*. Amsterdam & Philadelphia: John Benjamins.

(Non-)canonical subjects and agreement: Specificational Copular Clauses in Germanic

Jutta M. Hartmann & Caroline Heycock

(Institut für Deutsche Sprache, Mannheim, & University of Edinburgh)

One prototypical property of subjects in Germanic is controlling finite verb agreement in Person and Num- ber. Here we explore one configuration in which this agreement is (variably) affected by the position of the putative subject: S[pecificational] C[opular] C[lause]s—a configuration where there are actually two potential targets for agreement, i.e. two nominative DPs that may disagree in φ-features.

(1)   He wonders . . .
    a.   . . . if [*DP* 1 the problem] is [*DP* 2 your parents].
    b.   . . . ob [*DP* 1 das Problem] [*DP* 2 deine Eltern] sind. [German]
          if [the problem] [your parents] are
    c.   . . . hvort [*DP* 1 aðalvandamálið] er/eru [*DP* 2 foreldrarnir].   [Icelandic]
          if [main.problem.DEF] is/are [parents.DEF]

SCCs show an unusual and potentially revealing split in prototypical subject properties. DP1 can be shown to be in the canonical subject position and as such a prototypical subject. On the other hand, DP2 has frequently been argued to have the semantic status of subject of predication (see e.g. Heggie 1988, Moro 1991, 1997, Heycock 1992, Mikkelsen 2005, den Dikken 2006). In this presentation we present new data relating to how agreement interacts with hierarchical position (is agreement Specifier-head—see e.g. Chomsky 1981, Koopman 2006—or downwards agreement of a probe with a goal under c-command—see Chomsky 2000 and follow-up work), and also with the interpretation of the agreed-with DP as the "subject of predication." In Moro's seminal work, agreement with DP2 in Italian SCCs was taken as a powerful argument for subject status of DP2; the difference with English was attributed to issues relating to pro-drop. Here we add a new dimension by showing that the agreement patterns in SCCs are not tied to pro-drop, and are not always consistent even within a language. We present and analyse experimental data showing inter- and intra-linguistic variation within Germanic (German, Icelandic, Faroese, Dutch) concerning both Number and Person agreement.

Main results:

(i)   German and Icelandic allow full DP2 agreement (Number and Person), thus, full agree- ment is possible with a nominative DP in non-default (German) or even post-copular position (Icelandic). Hence such agreement is not necessarily defective (contra e.g. Baker 2008).

(ii)   At the same time, we find effects on agreement choice/preference in specific syntactic configurations, a dispreference for person agreement with DP2 (Icelandic) and effects of syncretism in the person paradigm (Faroese). This suggests that there is competition which is affected by aspects of both syntactic structure and morphological form.

(iii)   Additionally, Icelandic shows one pattern in which agreement in Number but not Person is available for DP2. We argue that this shows that agreement can be split into separate number and person heads (as proposed independently for Icelandic in e.g. Sigurðsson & Holmberg 2008).

(iv)   The initial DP is is not radically underspecified for φ-features (contra e.g. den Dikken 2014, Bejar & Kahnemuyipour 2014); the type of agreement seen in (1a) is not simply default.

    We derive the observed agreement patterns from TP-internal inversion, with possible landing sites for the inverted DP below the agreement heads (full DP1 agreement), above the agreement heads (full DP2 agreement) and between Number and Person heads (Icelandic partial agreement). The languages vary with respect to whether one or more positions are available.

References

Baker, Mark C. 2008. *The Syntax of Agreement and Concord.* Cambridge studies in linguistics. Cambridge: Cambridge University Press.

Bejar, Susana & Arsalan Kahnemuyipour. 2014. Non-canonical agreement in copular contexts: inversion vs. phi-sensitivity. Handout from the Workshop on Copulas, Bologna.

Chomsky, Noam. 1981. *Lectures on Government and Binding: The Pisa Lectures*. Dordrecht: Foris. Chomsky, Noam. 2000. Minimalist inquiries: The framework. In Roger Martin, David Michaels & Juan

Uriagereka (eds.), *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, Cambridge, MA: MIT.

den Dikken, Marcel. 2006. *Relators and Linkers: The Syntax of Predication, Predicate Inversion, and Copulas*. Cambridge, MA: MIT.

den Dikken, Marcel. 2014. The attractions of agreement. Ms., Linguistics Program, CUNY Graduate Center.

Heggie, Lorie. 1988. *The Syntax of Copular Constructions*. Los Angeles: University of Southern California dissertation.

Heycock, Caroline. 1992. Layers of Predication and the Syntax of the Copula. *Belgian Journal of Linguistics*

7. 95–123.

Koopman, Hilda. 2006. Agreement configurations: In defense of spec-head. In Cedric Boeckx (ed.), *Agree- ment Systems*, vol. 92 Linguistik Aktuell, 159–199. Amsterdam: Benjamins.

Mikkelsen, Line. 2005. *Copular Clauses: Specification, Predication and Equation*. Amsterdam/ Philadel- phia: Benjamins.

Moro, Andrea. 1991. The Raising of Predicates: Copula, Expletives, and Existence. In Lisa Cheng & Hamid Demirdache (eds.), *More Papers on Wh-movement* MIT Working Papers in Linguistics, 119–181. Cambridge, MA: MIT.

Moro, Andrea. 1997. *The Raising of Predicates: Predicative Noun Phrases and the Theory of Clause Structure*. Cambridge/ New York: Cambridge University Press.

Sigurðsson, Halldor Ármann & Anders Holmberg. 2008. Icelandic dative intervention: Person and Number are separate probes. In Roberta D'Alessandro, Susann Fischer & Gunnar Hrafn Hrafnbjargarson (eds.), *Agreement restrictions*, 251–279. Berlin: Mouton de Gruyter.

Inverting the subject in Awing

Henry Zamchang Fominyam
(Universität Potsdam)

This chapter addresses the morpho-syntactic and pragmatic properties of postverbal subject clauses in Awing, an SVO Grassfields Bantu language spoken in the North West region of Cameroon. Awing like most Bantu languages has a construction where: the subject appears immediately after the verb; both subject and verb share a close prosodic bond; the subject receives a focus interpretation and there is no object marking. However, Awing differs from typical inversion construction (Marten & Van der Wal (2014)) in that while across Bantu, the object or some other DP is often in a preverbal position and *agrees in noun-class* with the verb, in Awing, the object may optionally follow an obligatory doubled verb and is realized postverbally (the neutral case), or it is preposed to a position preceding the verb, where it is interpreted as (contrastive) topic. Moreover in Awing, crucially, an VS(O) clause cannot host a subject marker (SM); and such constructions must contain a certain LE morpheme.

I will begin by showing that inverting the subject in Awing is a focus strategy to achieve exhaustive subject focus. It will be argued that the subject in the post-verbal domain must not be treated as sitting in a lower focus phrase (Belletti 2002), but rather within vP. The main argument used to back this position is the presence of the LE morpheme—(focus marker) in sentence-initial position. Following Fominyam & Šimi≅k (2017), I show that the obligatory LE morpheme in an VS clause assigns an exhaustive interpretation to the first maximal projection it asymmetrically c-commands, in this case the subject within vP. This will straightforwardly explain why the SM is absent in VS clauses. I argue that in Awing, the SM triggers the subject from within VP (Baker (2003); Collins (2004)); explaining why the SM is banned in (X)VS and/or VSVO clauses. The exact role of verb doubling in an VSVO order is still unclear since such examples are clearly interpreted as subject and not verb/predicate focus. However, the non-appearance of the second verb in an OVS clause and its optionality in cases where the subject is followed by a locative phrase suggest that verb doubling has to do with case marking.

References

Baker, Mark. 2003. Agreement, dislocation, and partial configurationality. In Andrew Carnie, Heidi Harley & MaryAnn Willie (eds.), *Formal approaches to function in grammar*, 107-132. Amsterdam: John Benjamins.

Belletti, Adriana. 2004. Aspects of the low IP area. In Luigi Rizzi (ed.), *The structure of CP and IP: The cartography of syntactic structures,* Volume 2, 16–51. Oxford: Oxford University Press.

Collins, Chris. 2004. The agreement parameter. In Anne Breitbarth & Henk van Riemsdijk (eds.), Triggers, 115-136. Berlin: Mouton de Gruyter.

Fominyam, Henry. & Šimík , Radek (2017). The morphosyntax of exhaustive focus: A view from Awing (Grassfields Bantu), Nat Lang Linguist Theory.

Marten, Lutz & Jenneke van der Wal. 2014. A typology of Bantu subject inversion. Linguistic Variation 14(2). 318–368.

Split Intransitivity and Non-canonical Subject Order in Yukuna (Arawak, Colombia)

Magdalena Lemus Serrano & Tom Durand
(CNRS/Dynamique du Langage & Sedyl)

Arawak languages typically display a split-intransitive pattern of core argument marking with two classes of intransitive predicates (Aikhenvald 1999; Durand 2016). In Yukuna, Sa are indexed by pronominal prefixes like A (), whereas the single argument of non-verbal predicates (Sp) is marked by a post-predicate pronoun (), like P ().When A/Sa are expressed with a NP, no pronominal prefix is found on the predicate, and the word order is A/Sa PRED O/Sp (). This split-intransivity system is based on the part of speech of the predicate (Rose Submitted; Danielsen and Granadillo 2008).

Yukuna uses another argument marking pattern in which A/Sa are expressed by a NP, and predicates are nominalized with gender/number suffixes agreeing with A/Sa, with no pronominal prefixes (). Constituent order in this construction generally mirrors the canonical order of the equivalent non-nominalized predicate (), but non-canonical post-predicate Sa (), in the canonical position of Sp () are also attested. The nominalized verbal predicate construction differs from the canonical clauses in the nominative agreement of the gender suffixes, and in the possibility of having both pre-predicate and post-predicate Sa.

Predicates derived by the gender/number affixes (*-ri* m*, -yo* f*, -ño* pl) are used in main clauses (), and in subordinate clauses (0). This situation is indicative of the tendency of many languages, from the Americas and beyond, to encode subordination by nominalization (Mithun 1991; Carrió and Salanova 2009). It is very plausible that the innovative predicative construction in () comes from nominalized forms used in nominal predication, as Gildea (1998) has argued, which would account for the similarities in constituent order between non-verbal predication () and the non-canonical construction shown in ().

Ré	*i'ma-ká-**ño***	*jló*	*iná*	*kémá*	*na-ajñá*	*kujnú*	*waláko*	*jwa'té*
there	cop-t/a-pl	to	one	says	3pl-eat	cassava	tucupí	with

'To those who are there, one says to eat cassava with tucupí.'

This paper examines non-canonical Sa/Sp order in Yukuna, on the basis of a corpus of narratives and elicited data, from a synchronic and a diachronic approach. We describe the canonical marking of subjects, their shared morphosyntactic properties, and the semantic and pragmatic factors that motivate the variations in their placement. We also discuss the origin of non-canonical subject-marking within the framework of diachronic syntax (Harris and Campbell 1995), and argue that it very likely results from a reanalysis of a nominalized verb as a main verbal predicate (see Gildea 1998 on Cariban, and Stark 2015 on Northern Caribbean Arawak).

References

Aikhenvald, Alexandra. 1999. "The Arawak Language Family." In *The Amazonian Languages*, edited by R.M.W. Dixon and Alexandra Aikhenvald, 65–102. Cambridge University Press.

Carrió, Cynthia, and Andrés Pablo Salanova. 2009. "Dos Ejemplos de Construcciones Deverbales Nominales En Oraciones Principales." In *II Encuentro de Lenguas Indígenas Americanas*. Universidad Nacional del Nordeste, Resistencia.

Danielsen, Swintha, and Tania Granadillo. 2008. "Agreement in Two Arawak Languages: Baure and Kurripako." In *The Typology of Semantic Alignment*, edited by Mark Donohue and Søren Wichmann, 396–411. Oxford: Oxford University Press.

Durand, Tom. 2016. "L'intransitivité Scindée Dans Les Langues Arawak." PhD dissertation, INALCO.

Gildea, Spike. 1998. *On Reconstructing Grammar: Comparative Cariban Morphosyntax*. New York, Oxford: Oxford University Press.

Harris, Alice C., and Lyle Campbell. 1995. *Historical Syntax in Cross-Linguistic Perspective*. Volume 74 of Cambridge Studies in Linguistics. Cambridge: Cambridge University Press.

Mithun, Marianne. 1991. "Active/Agentive Case Marking and Its Motivations." *Language* 67 (3): 510–46.

Rose, Françoise. Submitted. "Non-Verbal Predication and Lexical Classes in Mojeño Trinitario." In *Non-Verbal Predication in Amazonia*, edited by Simon Overall and Spike Gildea.

Stark, Tammy. 2015. "Caribbean Northern Arawak Suffixal Person Markers." In *Workshop on Diachronic Morphosyntax in South American Languages*. Institut des Sciences de l'Homme, Lyon.

From postverbal to preverbal subjects: On nominal infinitives between Latin and Old Italian

Claudia Fabrizio
(University of Chieti-Pescara)

In this paper, I aim to examine the syntactic behaviour of a special class of non-canonical subjects, namely nominal infinitives, in Latin and in the transition from Latin to one of its daughter languages, Old Italian.

Data show that, in Latin, nominal infinitives can appear in subject function only if the finite verb of the clause belongs to a restricted set of unaccusative predicates, corresponding to states or telic changes of state, all taking non-agentive subjects and denoting non-volitional processes. Infinitives cannot surface as subjects of unergative and transitive predicates, thus conforming to a widespread cross-linguistic trend concerning non-canonical subjects (Bayer 2004, Mahajan 2004, Tsunoda 2004). Moreover, with more than chance frequency they also tend to be postverbal subjects, as in the following example, where the finite predicate *est utile* 'is useful' , denoting a state, precedes its infinitive subject *peccare* 'to err' :

a.   *numquam … **est utile** peccare* (Cic. De Off., 3,64)
 'To err is never useful'

Due to these reasons, the syntax of subject infinitives in Latin does not fit the nominative-accusative system consistently, and can be better ascribed to a different coding strategy, sensitive to the *Aktionsart* of the finite predicate of the clause (see, for similar phenomena in Latin, Cennamo 2009, Rovai 2005, 2014).

Viceversa, the constraint governing the distribution of subject infinitives in Latin does not hold in Old Italian, insofar as in this language they are eligible to subjecthood regardless of the *Aktionsart* of the

finite verb of the clause. For instance, in the following example *peccare* ('to sin') is the subject of a biargumental causative predicate, *fece prender* ('made take on'):

b.   **fece** il <u>peccar</u> nostro **prender** Dio (...) humana carne (Petrarch, *Rerum Vulgarium Fragmenta*, 366, 76-78)
 'Our sin made God take on human flesh'

My hypothesis is that the change involving the syntactic status of nominal infinitives between Latin to Old Italian (i.e., from postverbal marked arguments to unconstrained subjects) might have started from the clauses with a finite experiencer predicate, as those in (c), spreading later to all biargumental contexts. Relevant evidence will be discussed.

c.   *lo <u>star</u> mi **sgrata*** (Boccaccio, *Amorosa Visione*, VI, 29)
 'To stay annoys me'

Above all, I expect to show that this change goes along with the gradual improving of the preverbal position of nominal infinitives (as in (c) *lo star* 'to stay'), finally acquiring the status of unmarked subjects.

References

Arkadiev, P. M. (2008), *Thematic roles, event structure, and argument coding*, in Donohue, M. and Wichmann, S. (2008, *eds.*), *The typology of semantic alignment*, Oxford University Press, Oxford, 101-117.

Bauer, B. (2000), *Archaic Syntax in Indo-European*, Mouton de Gruyter, Berlin.

Bayer, J. (2004), *Non-nominative subjects in comparison*, in Bhaskararao, P. and Subbarao, K. V. (2004, *eds.*), *Non-nominative subjects*, John Benjamins, Amsterdam / Philadelphia, 49-76.

Bennett, C. (1914), *Syntax of Early Latin*, Olms, Hildesheim.

Bentley, D. (2006), *Split Intransitivity in Italian*, Mouton de Gruyter, Berlin.

Bentley, D. (2010), *Principles of subject markedness in Romance*, «Archivio Glottologico Italiano», 95, 152-189.

Bertinetto, P. M. (2003), *Sulle proprietà tempo-aspettuali dell'infinito in italiano*, in Giacomo-Marcellesi. M. / Rocchetti, A. (2003, *eds.*), *Il verbo italiano. Studi diacronici, sincronici, contrastivi, didattici. Atti del XXXV congresso della Società di Linguistica Italiana*, Bulzoni, Rome, 113-165.

Cennamo, M. (2009), *Argument structure and alignment variations and changes in Late Latin*, in Barðdal, J. and Chelliah, S. L. (2009, *eds.*), *The Role of Semantic, Pragmatic, and Discourse Factors in the Development of Case*, John Benjamins, Amsterdam / Philadelphia, 307-346.

Comrie, B. (2005), *Alignment of Case Marking*, in Haspelmath, M., Dryer, M. S., Gil, D. and Comrie, B. (2005, *eds.*), *The Word Atlas of Language Structure*, chapters 98-99, Max Planck Digital Library, Munich.

Dixon, R. M. W. (1994), *Ergativity*, Cambridge, Cambridge University Press.

Donohue, M. (2008), *Semantic Alignment systems*: *what's what, and what's not*, in Donohue, M. and Wichmann, S. (2008, *eds.*), *The typology of semantic alignment*, Oxford University Press, Oxford, 24-75.

Draeger, A. (1878), *Historische Syntaxe der Lateinischen Sprache*, Teubner, Leipzig.

Drinka, B. (1999), *Alignment in Early Proto-Indo-European*, in Justus, C. F. – Polomé, E.C. (1999, *eds*.), *Language Change and Typolgical Variation: In Honor of Winfred P. Lehmann on the Occasion of his 83rd Birthday*, Institute for the Study of Man, Washington DC, vol. II, 464-500.

Ernout, A. and Thomas, F. (1964), *Syntaxe latine*, Klincksieck, Paris.

Fabrizio, C. (2015), Il caso curioso dell'infinito soggetto in latino, in Marotta, G. – Rovai, F. (2015, eds.), Ancient Languages between Variation and Norm. Special Issue of «Studi e Saggi Linguistici», LIII (2), 401-418.

Fabrizio, C. (2017), *"Par che m'accoglia lo vostro innamorare". Sull'infinito soggetto in italiano antico*, in D'Achille, P. – Grossmann, M. (2017, *eds*.), *Per la storia della formazione delle parole in italiano. Un nuovo corpus in rete (MIDIA) e nuove prospettive di studio*, Franco Cesati, Rome, 201-219.

Fabrizio, C., *The semantically-oriented syntax of subject infinitives in Latin and Homeric Greek*. In Schmitt, R. – Sadovski, V. – Luschutzky, H. Ch. (eds.): *Iranian and Indo-European Linguistics and Onomastics. Contributions in memory of M. Mayrhofer*. Vienna: Austrian Academy of Sciences Press.

Fedriani, C. (2009), *The «Behaviour-before-Coding» Principle: further evidence from Latin*, «Archivio Glottologico Italiano», 94, 156-184.

Fedriani, C. (2014), *Experiential Constructions in Latin. A synchronic and diachronic study*, Brill, Leida.

Hopper, P. J. and Thompson, S. A. (1982), *Syntax and Semantics 15: Studies in Transitivity*, Academic Press, Londra / New York.

Keenan, E. (1976), *Towards a Universal Definition of Subject*, in Li, C. (1976, *ed*.), *Subject and Topic*, Academic Press, New York / San Francisco/ London, 303-322.

Kuryłowicz, J. (1964), *The Inflectional Categories of Indo-European*, Winter, Heidelberg.

Kurzová, H. (1993), *From Indo-European to Latin. The Evolution of a Morphosyntactic Type*, John Benjamins, Amsterdam / Philadelphia.

Lazzeroni, R. (2002), *Ruoli tematici e genere grammaticale*: *un aspetto della morfosintassi indoeuropea?* «Archivio Glottologico Italiano», 87, 1-17.

Lehmann, Ch. (1985), *Ergative and active traits in Latin*, in Plank, F. (1985, *ed*.), *Relational Typology*, Mouton de Gruyter, Berlin / New York, 243-255.

Leumann, M., Hofmann, J. B. and Szantyr, A. (1965), *Lateinische Grammatik*, Beck, Munich.

Luraghi, S. (1995), *Prototypicality and agenthood in Indo-Euroepan*, in Andersen, H. (1995, *ed*.), Historical Linguistics 1993, John Benjamins, Amsterdam / Philadelphia, 254-268.

Mahajan, A. (2004), *On the origin of non-nominative subjects*, in Bhaskararao, P. and Subbarao, K. V. (2004, *eds*.), *Non-nominative subjects*, John Benjamins, Amsterdam / Philadelphia, 283-299.

Nichols, J. (2008), *Why are stative-active languages rare in Eurasia*? *A typological perspective on split-subject marking*, in Donohue, M. and Wichmann, S. (2008, *eds*.), *The typology of semantic alignment*, Oxford University Press, Oxford, 119-139.

Onishi, M. (2001), *Introduction. Non-Canonically Marked Subjects and Objects: Parameters and properties*, in Aikhevald, A., Dixon, R. M. W. and Onishi, M. (2001, *eds*.), *Non-canonical Marking of Subjects and Objects*, John Benjamins, Amsterdam / Philadelphia, 1-51.

Pieroni, S. (2007), *Soggetto e riflessivo*, in La Fauci, N. and Pieroni, S., *Morfosintassi latina. Punti di vista*, ETS, Pisa, 27-39.

Pinkster, H. (1991), *Sintassi e Semantica Latina*, Rosenberg e Sellier, Turin.

Plank, F. (1985), *The extended accusative / restricted nominative in perspective*, in Plank, F. (1985, *ed*.), *Relational Typology*, Mouton de Gruyter, Berlin / New York, 269-231.

Romagno, D. (2011), *Codifica argomentale e ruoli semantici. Ergativo/accusativo vs. attivo*, «Archivio Glottologico Italiano», 96, 3-30.

Romagno, D. (2012), *Alternanze argomentali e ruoli grammaticali. Fra lessico e sintassi*, in Bambini, V., Ricci, I. and Bertinetto, P. M. (2012, *eds*.), *Linguaggio e cervello – Semantica / Language and the brain – Semantics*, Bulzoni, Rome, 1-12.

Ronconi, A. (1946), *Il verbo latino. Principi di sintassi storica*, Zanichelli, Bologna.

Rovai, F. (2005), *L'estensione dell'accusativo in tardo latino e medievale*, «Archivio Glottologico Italiano», 90, 54-89.

Rovai, F. (2007), *Manifestazioni di sub-sistemi tipologici attivi in latino*, «Archivio Glottologico italiano», 92, 51-65.

Rovai, F. (2012), *Sistemi di codifica argomentale. Tipologia ed evoluzione*, Pacini, Pisa, 2012.

Rovai, F. (2014), *Case marking in absolute constructions: further evidence for a semantically based alignment in Late Latin*, «Journal of Latin Linguistics», 13, 115-143.

Salvi, G. (1982), *L'infinito con l'articolo e la struttura del SN*, «Rivista di grammatica generativa», 7, 197-225.

Seržant, I. A. – Fedriani, C. – Kulikov, L. (2013), *Introduction*, in Seržant, I. A. – Kulikov, L. (2013, *eds*.), *The Diachronic Typology of Non-Canonical Subjects*, John Benjamins, Amsterdam / Philadelphia, 9-26.

Stolz, F. and Leumann, M. (1977), *Lateinische Grammatik*, Beck, Munich.

Tsunoda, T. (2004), *Issues in case-marking*, in Bhaskararao, P. and Subbarao, K. V. (2004, *eds*.), *Non-nominative subjects*, John Benjamins, Amsterdam / Philadelphia, 197-208.

Van Valin, R. D. Jr. (2005), *Exploring the Syntax-Semantics Interface*, Cambridge University Press, Cambridge.

Van Valin, R. D. Jr. and La Polla, R. J. (1997), *Syntax. Structure, meaning and function*, Cambridge University Press, Cambridge.

Vanvolsem, S. (1981), *L'infinito sostantivato in italiano*, Accademia della Crusca, Florence.

Wichmann, S. (2008), *The study of semantic alignment: retrospect and state of the art*, in Donohue, M. and Wichmann, S. (2008, *eds*.), *The typology of semantic alignment*, Oxford University Press, Oxford, 3-23.

Woodcock, E. (1959), *A New Latin Syntax*, Methuen, London.

Postverbal subjects in old Italo-Romance

Francesco Maria Ciconte

(University of Puerto Rico / University of Naples "Federico II")

This paper examines postverbal subjects in a relatively large corpus of early Italo-Romance texts dating from C13[th] to C16[th]. In the V2 syntax of old Italo-Romance, the preverbal position is not the privileged position of subjects, but rather hosts any syntactic category bearing pragmatic relevance (cf. Vanelli 1986, 1999, Salvi 2000, 2004, Benincà 2006, Ledgeway 2008, 2011, among others). Accordingly, subjects can be both preverbal and postverbal, regardless of their pragmatic role, which can be topical or focal in either position. Thus, by contrast with modern Italo-Romance, at this stage referential topical subjects can follow the verb (cf. 1a), and informational focal subjects can be fronted (cf. 1b).

(1)	a.	Disse	il	saladino	(Old Tuscan)
		say.pst.3sg	the	saladin	

‘The Saladin said’ (*Novellino*, xxiv)

b.   Uno   giudice (…)   sì   l'   ave   transotato   in   chesta presente   forma…   (Old Neapolitan)

a   judge   thus   it   have.3sg   transformed   in   this present   form

‘A judge (…) translated it in this current form’ (*Libro de la destruction de Troya*, 47, 30)

However, preverbal focal subjects are rarely attested in the sentence-focus structures of our corpus. Rather, focal subjects tend to be postverbal and indefinite. In these types of construction, definite nominals may follow the verb, but they are constrained by pragmatic and semantic conditions, i.e. they are non-referential topics, non-specific tokens, and they express low agentivity (cf. 2a). Furthermore, we note that, whilst in the southern varieties postverbal subjects always control agreement, this is frequently lacking in the northern vernaculars (cf. Parry 2010, 2013, Ciconte 2015, Bentley 2017). Importantly, we identify the stage in which an expletive form that occupies the preverbal position starts to appear in these vernaculars (cf. 2b).

(2)   a.   Vegne   gli   fiumi   (Old Lombard)

come.3sg   the   rivers

‘There come the rivers’ (*Parafrasi*, 56^b, 19-32)

b.   El   è   vegnù   multi   mercadanti

expl   be.3sg   come.m.sg   many   merchants

‘There have come many merchants’ (*Boccalata*, iv, 23)

To classify the information-structure patterns that characterize the position of the subject in the V2 syntax of early Italo-Romance, we group the examples according to variables such as verb classes, (in)definitess of the nominal, semantics of the predicate, etc. Whilst considering the historical and stylistic influences that play an important role in the textual forms of the early texts (cf. Sornicola 2004), in our data-driven analysis we seek to ascertain what factors in the history of Italo-Romance have progressively led to the viability of dedicated syntactic positions for the pragmatic-semantic distinction between pre- and post-verbal subjects.

References

Bentley, D. (2017). Grammaticalization of subject agreement on evidence from Italo–Romance. To appear in *Linguistics*.

Benincà, P. (2006). A Detailed Map of the Left Periphery of Old Romance. In Zanuttini, R., H. Campos, E. Herburger, P. H. Portner (eds). *Crosslinguistic Research in Syntax and Semantics: Negation, Tense and Clausal Architecture*. Washington, DC: Georgetown University Press, pp. 53-86.

Ciconte, F. M. (2015). Historical context. In Bentley, D., F. M. Ciconte & S. Cruschina, *Existentials and Locatives in Romance Dialects of Italy*. Oxford: Oxford University Press, 217-260.

Ledgeway, A. (2008). Satisfying V2 in early Romance: Merge vs Move. *Journal of Linguistics* 44: 437-470.

Ledgeway, A. (2011). Syntactic and morphosyntactic typology and change in Latin and Romance. In Maiden, M., J. C. Smith, A. Ledgeway (eds). *The Cambridge History of the Romance Languages*. Cambridge: Cambridge University Press.

Parry, M. (2010). Non-canonical subjects in the early Italian vernaculars. *Archivio Glottologico Italiano* XCV, II: 190-226.

Salvi, G. (2000). La formazione del sistema V2 delle lingue romanze antiche. *Lingua e Stile 35*: 665-692.

Salvi, G. (2004). *La formazione della strutture di frase romanza. Ordine delle parole e clitici dal latino alle lingue romanze antiche*. Tübingen: Niemeyer.

Sornicola, R. (2004). Tendenze di lunga durata delle strutture mono-argomentali tra scritto e parlato: gli schemi di ordine vs nelle frasi principali del latino e delle lingue romanze. In Van Deyck, R., R. Sornicola, J. Kabatek (eds), *La variabilité en langue, I. Langue parlée et langue écrite dans le présent et dans le passé*. Gand: Communication & Cognition, (Studies in Language, 8), 177-230.

Vanelli, L. (1999). Ordine delle parole e articolazione pragmatica dell'italiano antico: la 'prominenza' pragmatica della prima posizione nella frase. *Medioevo Romanzo* 23 (2): 229-246.

WORKSHOP 18

Non-linguistic causes of linguistic diversity

Dan Dediu, Steven Moran, & Antonio Benítez-Burraco

(Max Planck Institute for Psycholinguistics, Netherlands; University of Zurich, Switzerland; & University of Huelva, Spain)

Description of the workshop topic and research questions

The goal of this workshop is to shed light on the non-linguistic causes of linguistic diversity. Traditionally, language diversity has been claimed to result from random, internally-motivated changes in language structure. Ongoing research suggests instead that different factors that are external to language can promote language change and ultimately account for aspects of linguistic diversity. Accordingly, linguistic complexity correlates with aspects of social complexity, to the extent that big exoteric communities (involved in regular cross-cultural exchanges with other groups and having more non-native speakers) typically speak languages that show simpler and more regular morphologies and more complex syntaxes (Bolender 2007, Wray and Grace 2007, Lupyan and Dale 2010). Likewise, core properties of human languages (like duality of patterning) have been claimed to result from iterate learning and cultural evolution, as research in village sign languages illustrates (Sandler et al. 2011). Ultimately, some aspects of language structure have been suggested to have an adaptive value (Lupyan and Dale 2016). It has been hypothesised that certain gene alleles, provided that they bias language acquisition or processing, may affect language change through iterated cultural transmission (Dediu 2011). Consequently, the focus of this workshop is not put on microvariation within languages, but on macrovariation across languages from a typological perspective. Specific research questions to be addressed include (but are not limited to):

- Patterns of global linguistic diversity
- Ecological factors accounting for language diversity
- Socio-cultural factors accounting for language diversity
- Adaptive value of language diversity
- Gene-culture co-evolution and language diversity
- Emergent properties of languages

References

Bolender, J. (2007). Prehistoric cognition by description: a Russellian approach to the upper Paleolithic. *Biol. Philos.* 22, 383-399.

Dediu, D. (2011). Are languages really independent from genes? If not, what would a genetic bias affecting language diversity look like? *Hum. Biol.* 83, 279-96.

Lupyan, G. and Dale, R. (2010). Language structure is partly determined by social structure. *PLoS One* 5, e8559.

Sandler, W. Aronoff, M., Meir, I. and Padden, C. (2011). The gradual emergence of phonological form in a new language. *Nat. Lang. Linguist Theory* 29, 503-543.

Wray, A. and Grace, G. W. (2007). The consequences of talking to strangers: Evolutionary corollaries of socio-cultural influences on linguistic form. *Lingua* 117, 543-578.

Exploring potential ambient effects on language: Moving closer to speech

Caleb Everett

(University of Miami)

Articulatory ease/effort plays a role in the crosslinguistic frequency of some speech sounds. [1] Relatedly, experimental work has demonstrated that dry ambient air can result in somewhat heightened effort for modal voicing to be attained. [2] Given these factors, it seems possible that environments with typically dry air yield (or yielded) subtle articulatory pressures on the development of sound patterns. The latter suggestion has been made in the literature with respect to tonality but, since the experimental laryngology data speak most convincingly to an effect of dryness on phonation effort (as opposed to effects on, e.g., jitter rates), I focus here on rates of voicing across languages. I offer data suggesting that languages that have developed in desiccated regions have comparatively lower rates of phonation, judging from their reduced reliance on vowels in many of their most frequent words. These data are based on word list transcriptions in the world's largest crosslinguistic database of common words. [3, 4] For each set of transcriptions of common words, a "vowel index" (number of vowel tokens divided by the total number of vowel and consonant tokens) was calculated. The languages' vowel indices were then correlated with the typical specific humidity of the languages' most representative historical locales. Phylogenetic influences were mitigated by randomly sampling languages from each of the linguistic families (inclusive of isolates), then using beta regression to test the association of the phonetic and ecological variables in question. The intra-continental and global pseudo R^2 values reflect a significant association between reduced vowel-utilization and desiccation. The association also surfaces via other methods considered briefly here. I stress that, while the association may eventually prove to be coincidental or epiphenomenal, it is also consistent with a laryngology-based hypothesis: languages in very desiccated regions either favor probabilistic diachronic mechanisms that reduce reliance on phonation (e.g. vocalic elision) or subtly disfavor mechanisms that increase that reliance (e.g. vocalic epenthesis), or both. Furthermore, I note how the hypothesized reduced reliance on voicing in very arid contexts could help explain previously uncovered geo-phonetic associations related to tonality and ejectives. Finally, I suggest that the approach utilized here is illustrative of a new methodological tack researchers could take (and refine) in order to move beyond the usage of phonemic inventories in examining potential ecological effects on language, since that usage may yield overly simplistic language-binning strategies. [5] The method presented here represents one way to draw correlational efforts closer to the actual speech stream, even as hypotheses on ecological influences on language await the requisite experimental support.

References

[1] Napoli D. J.et al . (2014) On the Linguistic Effects of Articulatory Ease, with a Focus on Sign Languages, *Language*, 90 : 424 − 56 .

[2] Leydon C. et al . (2009) Vocal Fold Surface Hydration: A Review, *Journal of Voice*, 23 : 658− 65.

[3] Everett C. et al. (2015) Climate, Vocal Folds, and Tonal Languages: Connecting the Physiological and Geographic Dots, *Proceedings of the National Academy of Sciences of the United States of America*, 112 : 1322-1327.

[4] Wichmann, S., E. Holman, and C. Brown (eds.). 2016. *The ASJP Database* (version 17).

[5] Ladd D. R. (2016) Commentary: Tone Languages and Laryngeal Precision, *Journal of Language Evolution* 1:70-72.

Probing the biological conditions for modern phonologies: The late emergence of labiodentals

D. Blasi, S. Moran, A. Margvelashvili, D. Dediu and S. Moisik

(University of Zürich and Max Planck Institute for the Science of Human History; University of Zürich; Georgian National Museum; Max Planck Institute for Psycholinguistics; & Nanyang Technological University)

Large-scale regularities both at synchronic and diachronic levels of language description are often argued to be the result of extra-linguistic factors such as ease of production or processing, learnability or simplicity, among others. Yet such concepts are often invoked without specific indications about how can they be evaluated empirically, which hinders effective progress in our understanding of the dynamics of languages.

Here we provide a fleshed out experimental and observational evaluation of the claim that certain articulatory gestures might have entered later in the history of our species as a result of widespread cultural changes that took place in many independent human populations starting from the Early Pleistocene. We focus on the development of labiodental segments in relation to changes in dental occlusion configuration, following an hypothesis first advanced by Hockett (1985). The angle and the positioning between upper and lower anterior teeth and their lifelong changes are connected and affected by tooth wear: an increase in wear (due to the consumption of tough foods or the usage of teeth as a third hand, a widespread feature of many hunter-gatherer populations) leads to uprighting movements of the anterior teeth, so that eventually upper and lower teeth align with each other, forming edge-to-edge bite (Kaifu et al. 2003, Margvelashvili et al. 2013). By using computational simulations created in ArtiSynth (www.artisynth.org; Lloyd et al. 2012) of labiodental articulation with both regular and edge-to-edge bites we show that the latter implies an increase in the articulatory cost of labiodentals.

This finding predicts that labiodentals would be systematically dispreferred in languages whose speakers are more likely to have edge-to-edge bite. Populations that have a recent history of heavy wear (such as Greenland and Australia) confirm that this is the case. More in general, using large-scale descriptions of both segment inventories and ethnographic records covering hundreds of languages of all continents (Moran et al. 2012), we show that languages spoken by populations that have been described as hunter-gatherers in the last century tend to have less or no labiodentals. Finally, synchronic evidence supports the notion that labiodentals are recent developments in the world´s languages.

References

Hockett, C. F. 1985. Distinguished lecture: F. *American Anthropologist*, 87(2), 263-281.

Kaifu, Y., Kasai, K., Townsend, G. C., & Richards, L. C. 2003. Tooth wear and the "design" of the human dentition: a perspective from evolutionary medicine. *American Journal of Physical Anthropology*, *122*(S37), 47-61.

Lloyd, John E., Stavness, Ian, and Sidney Fels. 2012., ArtiSynth: A fast interactive biomechanical modeling toolkit combining multibody and finite element simulation, Soft Tissue Biomechanical Modeling for Computer Assisted Surgery, pp. 355-394, Springer.

Margvelashvili, A., Zollikofer, C. P., Lordkipanidze, D., Peltomäki, T., & de León, M. S. P. 2013. Tooth wear and dentoalveolar remodeling are key factors of morphological variation in the Dmanisi mandibles. *Proceedings of the National Academy of Sciences*, *110*(43), 17278-17283.

Moran, Steven & McCloy, Daniel & Wright, Richard (eds.) 2014. PHOIBLE Online. Leipzig: Max Planck Institute for Evolutionary Anthropology.

Causativization as non-diversity: Linguistic and non-linguistic causes

Johanna Nichols

Regular and frequent causativization in verb derivation has been claimed to be favored by sociolinguistic situations that afford opportunities for selection of universally favored grammatical patterns (Nichols 2011, 2015). However, the claim is not supported by a precise enough definition of the sociolinguistic context, a large enough sample of languages, information on evolutionary trends within families, wide enough geographical coverage, or adequate preclusion of possible linguistic causal factors. Nor is the claim of a universal bias for causativization (Nichols et al. 2004) adequately supported. There are also some shortcomings in their typology and the taxonomy of derivational types. This paper improves and expands their verb list, improves the typology and coding, surveys a much larger sample of languages, assesses correlations with other typological variables, and looks more systematically at the sociolinguistics and contact history of causativization hotbeds. It also surveys other structural properties that may reflect the relevant sociolinguistics: certain kinds of decomplexification, non-iconic sound symbolism in small deictic word sets (Author 2001), spread of attractor segments in inflectional paradigms (Author 2012, 2013), and self-similarity in element order at all levels.

   With these improvements the claim is strongly supported and applicable to the other attractors as well: what I will call linguistic *symbiosis* (bilingualism, fairly long-term, with easy code switching but no durable shift, no clear dominant or prestige language, and minimal or no ideology of language identity), and/or a history of back-and-forth shifting, favors causativization and spread of attractor phones in small paradigms. Both innovation and selection of attractors are favored if the two languages are structurally similar to start with. Ordinary decomplexification, in contrast, occurs in one-time shift situations where appreciable numbers of adult L2 learners are absorbed and is probably indifferent to their original typological similarity. It is less stable than attractors, which outlast simplification and remain strong in languages at spread peripheries that have undergone subsequent complexification due to sociolinguistic isolation.

   Full confirmation will require more ethnographic, sociological, and historical data than can usually be found in grammars, but appears feasible; some exploratory studies are reported in this paper. One important background factor can be proposed: sufficient population density to enable selected attractors to spread. The critical factors appear to be not just sheer population density but (1) network structure: density of nodes, the length of paths of influence and interaction (counted in numbers of nodes), and the length of edges between nodes (measured in geographical distance with adjustment for obstacles and least costs), and (2) frequency or regularity of contacts. These factors increase the potential audience for innovations, enable the occasional code-switch or innovation to be taken as an installed variant, and thereby increase the chances that innovations will reach the influential node hubs and gain currency (see Faytag et al. 2012). If confirmed, this will explain why causativization and other attractors are not absolute universals: only when the human population had reached some critical threshold could attractors spread and last. I close with proposals for joint linguistic-demographic-ethnographic work.

Michael Dunn & Elena Luzhkova

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Molecular anthropology as a window on language contact: diffusion probabilities in phonology and grammar

Balthasar Bickel, Damian Blasi, Steven Moran, & Brigitte Pakendorf
(U Zürich; U Zürich and MPI for the Science of Human History; U Zürich; & CNRS UMR5596 Dynamique du Langage, Lyon and U Lyon)

Theories on diffusion or borrowability probabilities tend to be based on case studies of language contact where much of linguistic and social history is known or reconstructable [*1–3*]. This incurs either a bias towards shallow time depths, or a strong reliance on individual reconstructions of hand-picked features, with little quantification of uncertainty.

Here we examine contact events known from molecular anthropology and estimate diffusion probabilities by sampling features in large-scale typological databases across all domains of linguistic structure [*4–7*].

Molecular anthropology has traced physical contact (admixture) events in the past few thousand years, across several areas in the world. These events are a sufficient (though not a necessary) condition for language contact. We sample cases of two-way contact events from the genetic literature [*8–13*], for which we were able to identify languages that the populations are most probably associated with. We measure similarities between the two languages with regard to the typological features in our databases. Where several languages are likely to be associated with the same genetic population, we resample from the candidates. Finally, we compare the observed similarities to baseline expectations from similarities between languages that are extremely unlikely to ever have been in contact (as ensured by maximizing their geographical distance), while controlling for global frequencies (since more frequent features increase the expected similarities).

Our results suggest that within the time depth of our sample (ca. 500-5000 years) phonological features have diffused more than grammatical features. A likely explanation is that phonological features (a) can be carried by lexical borrowing, which is frequent anyway [*3, 14–16*], and (b) is a privileged marker for social accommodation and the signaling of alliances [*17, 18*].

Our results furthermore suggest that when grammatical features form significant geographical clusters, these are likely to reflect older and longer contact histories than geographical clusters in phonology. This opens up new avenues for pushing back the time barrier in reconstructing linguistic history.

References
1. Thomason SG, Kaufman T. 1988. *Language contact, creolization, and genetic linguistics*. Berkeley: University of California Press
2. Aikhenvald AY. 2006. Grammars in contact: A cross-linguistic perspective. In *Grammars in contact*, ed AY Aikhenvald, R Dixon, pp. 1–66. Oxford: Oxford University Press
3. Matras Y. 2007. The borrowability of structural categories. In *Grammatical borrowing in cross-linguistic perspective*, ed G Bossong, B Comrie, Y Matras. Berlin: Mouton de Gruyter

4. Bickel B, Nichols J, Witzlack-Makarevich A, Zakharko T, Hildebrandt K, Rießler M, Bierkandt L, Zúñiga F, Lowe JB. to appear. *The AUTOTYP typological databases, version 0.1.0*. Zurich: University of Zurich (to be released via GitHub in May 2017)

5. Dryer MS, Haspelmath M, eds. 2013. *The world atlas of language structures online*. Munich: Max Planck Digital Library [http://wals.info/]

6. Moran S, McCloy D, Wright R, eds. 2014. *PHOIBLE online*. Munich: Max Planck Digital Library [http://phoible.org/]

7. Donohue M, Hetherington R, McElvenny J, Dawson V. 2013. *World phonotactics database*. Canberra: Department of Linguistics, The Australian National University

8. Pickrell JK, Patterson N, Barbieri C, Berthold F, Gerlach L, Güldemann T, Kure B, Mpoloka SW, Nakagawa H, Naumann C, Lipson M, Loh P-R, Lachance J, Mountain J, Bustamante CD, Berger B, Tishkoff SA, Henn BM, Stoneking M, Reich D, Pakendorf B. 2012. The genetic prehistory of southern africa. *Nature Communications*. 3:1143

9. Xu S, Pugach I, Stoneking M, Kayser M, Jin L. 2012. Genetic dating indicates that the asian-papuan admixture through eastern indonesia corresponds to the austronesian expansion. *Proceedings of the National Academy of Sciences*. 109:4574–9

10. Pierron D, Razafindrazaka H, Pagani L, Ricaut F-X, Antao T, Capredon M, Sambo C, Radimilahy C, Rakotoarisoa J-A, Blench RM, Letellier T, Kivisild T. 2014. Genome-wide evidence of austronesian-bantu admixture and cultural reversion in a hunter-gatherer group of madagascar. *Proceedings of the National Academy of Sciences*. 111:936–41

11. Hellenthal G, Busby GBJ, Band G, Wilson JF, Capelli C, Falush D, Myers S. 2014. A genetic atlas of human admixture history. *Science*. 343:747–51

12. Jeong C, Nakagome S, Di Rienzo A. 2016. Deep history of east asian populations revealed through genetic analysis of the ainu. *Genetics*. 202:261–72

13. Pugach I, Matveev R, Spitsyn V, Makarov S, Novgorodov I, Osakovsky V, Stoneking M, Pakendorf B. 2016. The complex admixture history and recent southern origins of siberian populations. *Molecular Biology and Evolution*. 33:1777–95

14. Sankoff G. 2002. Linguistic outcomes of language contact. In *The handbook of language variation and change*, ed JK Chambers, P Trudgill, N Schilling-Estes, pp. 638–68. London: Blackwell

15. Plag I. 2009. Creoles as interlanguages: Phonology. *Journal of Pidgin and Creole Languages*. 24:119–38

16. Tadmor U. 2009. Loanwords in the world's languages: Findings and results. In *Loanwords in the world's languages: A comparative handbook*, ed M Haspelmath, U Tadmor, pp. 55–75. de Gruyter Mouton

17. Silverstein M. 1981. *The limits of awareness*. Sociolinguistics Working Paper 84, Southwest Educational Development Laboratory, Austin, Texas

18. Hay J, Drager K. 2007. Sociophonetics. *Annual Review of Anthropology*. 36:89–103

A comparison of worldwide linguistic and genetic variation in human populations

Nicole Creanza

(Vanderbilt University)

Worldwide patterns of genetic variation are driven by human history. To test whether this demographic history has left similar signatures on phonemes to those it has left on genes, we analyzed phonemes from 2,082 languages and microsatellite polymorphisms from 246 populations. Globally, both genetic distance and phonemic distance between populations were significantly correlated with geographic distance; populations that were closer to one another tended to be more similar, genetically and linguistically. However, the spatial structuring in genes and languages did not occur on the same scale: whereas genetic distance showed spatial autocorrelation worldwide, phonemes were more similar only within a range of ~10,000 km, and the geographic distribution of phoneme inventory sizes did not follow predictions from genetics of an out-of-Africa serial founder effect. Further, although geographically isolated populations lose genetic diversity via genetic drift, phonemes are not subject to drift in the same way: relatively isolated languages exhibited more variance in number of phonemes than languages with many neighbors, suggesting that geographically isolated languages may be more susceptible to phonemic change. In addition, we test whether matrilineal and patrilineal inheritance affect language transmission by comparing linguistic variation to Y chromosome and mitochondrial genetic distance separately. These analyses shed light on the similarities and differences in genetic and linguistic signatures of human population history.

Cognitive biases and cultural evolution in the emergence of space-time mappings in language

Tessa Verhoef, Esther Walker, & Tyler Marghetis
(University of California, San Diego; University of California, San Diego; & Indiana University)

Humans spatialize time. This occurs in artifacts like timelines, in spontaneous gestures, and in conventional language ("looking FORWARD to the summer"). These links between space and time, moreover, exist both as associations in individual minds and as shared, cultural systems that transcend individuals. However, not all languages map space and time in the same way and as Núñez & Cooperrider (2013) point out, to understand the origins of such mappings, we must take into account several levels of analysis including initial individual biases, local cultural practices and cultural transmission. Here we present a series of laboratory experiments using methods to simulate the cultural emergence of space-time mappings. In our first experiment, pairs of English-speaking participants used a novel, spatial signaling device to play guessing games about temporal concepts. Repeated interactions and social coordination resulted in the initial emergence of patterns and mappings between time and space. Some aspects of these patterns were largely similar across different communication pairs, while others differed between pairs quite strikingly, suggesting involvement of both strongly shared biases and cultural processes. No fully systematized language emerged in the guessing game study and we are currently investigating whether these newly emerging patterns will evolve into more regular systems once they are transmitted across multiple generations of interacting users. Early results suggest they do. These laboratory experiments can help us understand how various interacting mechanisms at different time scales may shape emerging space-time mappings and how we might explain the commonalities as well as the variety found in space-time mappings in languages around the world.

References

Núñez, R., & Cooperrider, K. (2013). The Tangle of Space and Time in Human Cognition. Trends in Cognitive Sciences, 17(5): 220-229.

Strategies for demonstrating causal links across domains

Seán G. Roberts

(University of Bristol, UK; Max Planck Institute for Psycholinguistics, Netherlands)

Linguistics has been resistant to integrating explanations from other fields and domains outside language. This is changing with better availability of large digital databases and advances in statistical tools and software libraries for integrating and analyzing them. However, there is little discussion of the general strategy that researchers should use to establish evidence for a claim which links linguistic and non-linguistic phenomena. I argue that gathering evidence for such theories should be fully empirical, incremental and robust.

To begin, empirical methods are required as a common language in which to facilitate discussion between different fields with different theoretical backgrounds. Furthermore, research should be incremental in two senses. First, it should build upon existing theories, typologies and knowledge from linguistics and other fields, rather than use new approximations that fit the data or model. Secondly, there is no need for every paper to prove the theory in its entirety. Instead, it is best to see a theory as a causal chain with many links, and researchers can investigate one link at a time. Realistically, researchers will start with links that are easier to demonstrate and advance towards more definitive evidence. For example:

1) Demonstrate a synchronic relationship
2) Demonstrate a diachronic relationship
3) Demonstrate experimental evidence

In parallel, researchers should attempt to elicit and disprove alternative explanations. Given the complexity of working between multiple fields, this will also be an incremental and interactive task.

Finally, research should take a robust approach to theory building (see Irvine, Roberts & Kirby, 2013). That is, use as many sources of data and as many statistical or modelling approaches as possible.

I will illustrate this general strategy with work on the link between tone and climate (Everett, Blasi & Roberts, 2015; 2016). This theory can be seen as a series of causal links: dry air causes constriction of the vocal folds; vocal fold constriction affects ease of articulation for specific speech patterns, such as constant manipulation of tone; ease of articulation causes diachronic change; and diachronic change causes synchronic patterns (tonal languages are rare in dry places). In order to fill in the gaps, I will discuss possibilities for new diachronic analyses, experimental approaches and tools for disentangling alternative explanations.

References
Everett, C., Blasi, D. E., & Roberts, S. G. (2015). Climate, vocal folds, and tonal languages: Connecting the physiological and geographic dots. Proceedings of the National Academy of Sciences of the United States of America, 112, 1322-1327

Everett, C., Blasi, D. E., & Roberts, S. G. (2016). Language evolution and climate: The case of desiccation and tone. Journal of Language Evolution, 1, 33-46

Irvine, L., Roberts, S. G., & Kirby, S. (2013). A robustness approach to theory building: A case study of language evolution. In M. Knauff, M. Pauen, N. Sebanz, & I. Wachsmuth (Eds.), Proceedings of the 35th Annual Meeting of the Cognitive Science Society (CogSci 2013) (pp. 2614-2619)

Ecological constraints on linguistic diversity

Christophe Coupé

(Laboratoire Dynamique du Langage – CNRS & University of Lyon)

Beyond internal constraints on linguistic structures, an expanding range of external causal factors have been acknowledged, and debated, in recent years. Some of them relate to the social, physiological, genetic and historical roots of linguistic communities (e.g. Atkinson, 2011; Dediu & Ladd, 2007; Hay & Bauer, 2007). But human communities across the globe also inhabit a large variety of natural environments, and these may also impact, either indirectly or directly, the spatial distribution of linguistic diversity (Coupé, 2016). For instance, languages with complex tones are rarely found in arid regions, since a slight desiccation of the vocal folds leads to shimmer and jitter, which in turn seems to disfavor systems relying on an intense use of F0 variations (Everett et al., 2015). Also, higher altitudes and the related decrease in atmospheric pressure may partly explain the geographic distribution of ejective consonants (Everett, 2013). A significant research question is therefore to assess to which extent ecological constraints explain part of the phonetic diversity of today's languages at the geographic level. This question mirrors and extends inquiries in animal communication regarding the *acoustic adaptation hypothesis* (e.g. Morton, 1975; Ey & Fischer, 2009).

We introduce results from a collaborative work regarding the impact of several environmental factors on the phonological inventories of the world's languages. We rely on statistical models applied to a large dataset, combining the UPSID and Phoible databases, which contains phonological information for more than 1200 languages, as well as ecological variables derived from high-resolution satellite imagery. With these data, we elaborate on studies from bioacoustics which argue that dense vegetation disturbs the transmission of the higher frequencies of linguistic signals, and therefore the perception of consonants (Meyer et al., 2013; Maddieson, 2011; Maddieson & Coupé, 2016).

Significant effects obtained from mixed-effects regressions indicate that a combination of dense vegetation, heavy rainfall and high ambient temperatures negatively impacts on the number of obstruents in a language. We insist on the necessity to adequately model the distribution of phonemic diversity across languages. More precisely, we show that adopting an *inverse Gaussian* distribution in a generalized linear model leads to different and higher-quality results than other approaches, based for example on the application of linear regression models to a transformed response variable. Within this framework, we discuss how to account for, and sometimes discard, historical relationships between languages, linguistic contacts, parameters of social organization such as the number of speakers (Bybee, 2011), and possible phonemic founder effects during early human migrations (Atkinson, 2011).

Using a worldwide high-resolution dataset giving for each terrestrial location the time needed to reach the closest large city (Nelson, 2008), we finally report on on-going attempts to assess whether

languages which speakers tend to live away from large cities and closer to nature are more sensitive to environmental effects than more "urban" languages.

References

Atkinson, Q. D. (2011). Phonemic diversity supports a serial founder effect model of language expansion from Africa. *Science*, 332(6027), 346–349.

Bybee, J. (2011). How plausible is the hypothesis that population size and dispersal are related to phoneme inventory size? Introducing and commenting on a debate. *Linguistic Typology*, 15, 147–153.

Coupé, C. (2016). Commentary: Defining and assessing constraints on linguistic forms. *Journal of Language Evolution*, 1(1), 52–55.

Dediu, D. & Ladd, D. R. (2007). Linguistic tone is related to the population frequency of the adaptive haplogroups of two brain size genes, ASPM and Microcephalin. *PNAS*, 104(26), 10944-10949.

Everett, C. (2013). Evidence for direct geographic influences on linguistic sounds: The case of ejectives. *PLoS ONE* 8(6), e65275.

Everett, C., Blasi, D. E., & Roberts, S. G. (2015). Climate, vocal folds, and tonal languages: Connecting the physiological and geographic dots. *PNAS*, 112(5), 1322–1327.

Ey, E. & Fischer, J. (2009). The "Acoustic Adaptation Hypothesis" - A Review of the evidence from birds, anurans and mammals. *Bioacoustics* 19(1-2), 21–48.

Hay, J., & Bauer, L. (2007). Phoneme inventory size and population size. *Language*, *83*, 388–400.

Maddieson, I. (2011). Phonological complexity in linguistic patterning. *Proceedings of the 17th ICPhS*, 17–21.

Maddieson, I. & Coupé, C. (2016). Human language diversity and the acoustic adaptation hypothesis. *Proceedings of Meetings on Acoustics*, 25(1), 060005.

Meyer, J., Dentel, L. & Meunier, F. (2013). Speech recognition in natural background noise. *PLoS ONE* 8(11), e79279.

Morton, E. S. (1975). Ecological sources of selection on avian sounds. *American Naturalist*, 109(965), 17–34.

Nelson, A. (2008). Travel time to major cities: A global map of accessibility. *Global Environment Monitoring Unit - Joint Research Centre of the European Commission*, Ispra Italy. http://forobs.jrc.ec.europa.eu/products/gam/index.php

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WORKSHOP 19

Participles: Form, Use and Meaning (PartFUM)

Olga Borik & Berit Gehrke

(Universitat Autònoma de Barcelona)CNRS-LLF / Paris Diderot)

This workshop is dedicated to the form, meaning and use of all types of participles (labeled with different combinations of present, past, perfect, active, passive, imperfective, perfective, etc.), including adverbial participles/converbs (e.g. *deepričastija* in Russian), both from a synchronic and a diachronic perspective. While recent literature, especially in the field of formal syntax and semantics, has focused primarily on the by now well-described use, meaning and structure of past passive participles (cf. Rapp 1997, Kratzer 2000, Anagnostopoulou 2003, Embick 2004, Maienborn 2007, Alexiadou & Anagnostopoulou 2008, McIntyre 2013, Gehrke 2012, 2015, and many others), other participle classes have not attracted that much attention. We aim at bridging this gap by expanding the workshop theme to all possible classes of participles, ultimately in the search for an answer to the fundamental question of what is the proper characterization of participles in general.

Traditionally, participles are often treated as a hybrid of a verb and an adjective. This simple characterization already raises several important issues:

- What is 'adjectival' and what is 'verbal' in the grammatical makeup of participles? Do these 'verbal' and 'adjectival' properties characterize a participle itself or are they (partially) conditioned by the context in which a participle appears?
- If we look at their distribution, participles can appear in attributive or predicative position, or form part of a periphrastic verb form (progressive, verbal passive, perfect, etc.). This raises, among others, the following questions:
    - Can participles in predicative position (or rather, descriptively, in a position after *be* or other auxiliary/copula verbs) be verbal *or* adjectival, but those in attributive position only adjectival? Or can attributive participles also be reduced relatives of verbal constructions involving participles (if so: under what circumstances, what kinds of periphrastic verb forms do they correspond to, underlyingly, etc.)?
    - In contrast, what about participles that are used in periphrastic verb forms (tenses, voices, aspects, e.g. verbal passive, perfect, progressive), do they retain adjectival properties? Is there a possible diachronic development, in the sense that the combination of *be*/*have* (etc.) with a (possibly adjectival) participle developed into a periphrastic verb form?
    - What about a syntactic position where predicative and attributive characteristics of participles could be expected to combine, namely, predicate position of a relative clause nominal modifier? Do we find any/substantial differences between participial predicates of relative clauses vs. predicates of main clauses?
    - Is their cross-linguistic variation between different types of participles and their respective distribution? This is a question that becomes particularly relevant for those constructions/participle forms that are typologically not very widespread (such as, for instance, the double perfect in various German dialects).

Further research questions we are interested in addressing in this workshop include (but are not limited to) the following:

- How many classes of participles do we need to distinguish? Is there strong independent evidence that we need more than one class of, for instance, passive participles as suggested in Parsons (1990), Embick (2004), Kratzer (2000)? Why, though, do those different participles still fall under the same label? What is the defining property? Do we find similar subclasses of participles for the other participles that are less well described?
- What are the grammatical categories that participles express? Do the terms past/present, perfective/imperfective etc. in the characterization of a participle convey the same meaning as in verbs? If not, what are the differences?
- What are the exact formal (semantic, morphological etc.) restrictions on the formation of a particular type of participle, as well as on the use of such a participle (e.g. as adjectival or verbal participle, in passive, progressive, perfect constructions, etc.)? In particular, it has been claimed in the literature that adjectival participles can only be formed on the basis of verbs that have a state component in their meaning (for passive participles, see, e.g., Rapp 1997, Gehrke 2015), that only perfective participles can be used in 'proper' periphrastic passives in Russian (e.g. Schoorlemmer 1995, Paslawska & von Stechow 2003), that complex relationships hold between related categories of resultativity, passive and perfect in various languages (cf. Nedjalkov 1988). Once again, the restrictions have mostly been stated for passive participles, but what about other types of participles? Are there restrictions on their formation and use and how can these restrictions be explained from a theoretical perspective?

In this workshop, we aim at bringing together researchers working on these and related questions, putting a special emphasis on the diversity of the empirical data and encouraging different theoretical perspectives on the research questions specified above. As a result, we hope to achieve a better empirical coverage of the phenomena highly relevant for a defining characterization of the category 'participle' as well as assemble theory-independent insights which could shed more light on the behavior of this not too much studied, controversial and diverse class of forms.

References

Alexiadou, Artemis, & Elena Anagnostopoulou (2008). Structuring participles. In *Proceedings of the 26th West Coast Conference on Formal Linguistics*, eds. Charles B. Chang and Hannah J. Haynie, 33-41. Somerville: Cascadilla Proceedings Project.

Anagnostopoulou, Elena (2003). Participles and voice. In *Perfect Explorations*, eds. Artemis Alexiadou, Monika Rathert, & Arnim von Stechow, 1-36. Berlin: Mouton de Gruyter.

Embick, David (2004). On the structure of resultative participles in English. *Linguistic Inquiry* 35.3:355-392.

Gehrke, Berit (2012). Passive states. In *Telicity, Change, and State: A Cross-categorial View of Event Structure*, eds. Violeta Demonte & Louise McNally, 185-211. Oxford: Oxford University Press.

Gehrke, Berit (2015). Adjectival participles, event kind modification and pseudoincorporation. *Natural Language and Linguistic Theory* 33.3:897-938.

Kratzer, Angelika (2000). Building statives, ms. University of Massachusetts at Amherst.

Maienborn, Claudia (2007). Das Zustandspassiv: Grammatische Einordnung – Bildungsbeschränkung – Interpretationsspielraum. *Zeitschrift für Germanistische Linguistik* 35:83-144.

McIntyre, Andrew (2013). Adjectival passives and adjectival participles in English. In *Non-Canonical Passives,* eds. Artemis Alexiadou & Florian Schäfer, 21-42. Amsterdam: John Benjamins.

Nedjalkov, Vladimir P. (1988). *Typology of Resultative Constructions.* Amsterdam: John Benjamins.

Parsons, Terence (1990). *Events in the Semantics of English: A Study in Subatomic Semantics*. Vol. 19 of Current studies in linguistics series. Cambridge: MIT Press.

Paslawska, Alla, & Arnim von Stechow (2003). Perfect readings in Russian. In *Perfect Explorations*, ed. Artemis Alexiadou, Monika Rathert, & Arnim von Stechow, 307-362. Berlin: Mouton de Gruyter.

Rapp, Irene (1997). *Partizipien und semantische Strukur: Zu passivischen Konstruktionen mit dem 3. Status.* Tübingen: Stauffenburg.

Schoorlemmer, Maaike (1995). *Participial Passive and Aspect in Russian*. PhD Thesis, Utrecht University.

Ergativity in Europe? Participles in periphrastic constructions

Ksenia Shagal & Daniel Ross

(University of Helsinki & University of Illinois at Urbana-Champaign)

Setting aside the isolated case of Basque, ergative-absolutive morphosyntax is virtually unknown in western Europe. Although not uncommon elsewhere, most "ergative" languages display nominative-accusative properties in some contexts (Moravcsik 1978). In this paper, we discuss the opposite phenomenon, namely ergative-absolutive properties of periphrastic participial constructions in European languages. Consider the distribution of auxiliary verbs in the data below (English c.1800):

(1) *The prisoner **has** broken the window.*   (transitive, perfective)
(2) *The prisoner **is** escaped.*   (intransitive, perfective: 'has escaped')
(3) *The window **is** broken.*   (transitive, passive)

In many Western European languages, the choice of auxiliary is characterized by gradience that reflects the distinctions among verbs in terms of their aspectual and thematic structure (Sorace 2000). Crucially, however, in many cases intransitive perfectives and passives pattern together, while transitive perfectives behave differently (see examples above). We suggest that the observed development can be explained by looking at the relationship between the semantics of participles and the resulting periphrastic constructions.

Many participles in Europe and beyond resemble absolutive morphosyntax in their attributive uses (Shagal 2017): participles of this type describe intransitive subjects (*escaped prisoner*) and transitive patients (*broken window*). These participles are often resultative (Haspelmath 1994) and lend themselves to past, perfective or passive usage, which can be extended to other parts of the grammar: during their development, English perfectives, passives, and resultatives were all related (Toyota 2008). With an auxiliary verb like *be*, the resulting absolutive-like syntax from auxiliary-participle combinations as in (2) and (3) is expected. An exception is perfective *have*, which developed later from transitive *have* with a participle describing the object ('I have a book read') that was reanalyzed as part of a periphrastic construction, as in (1), with *have* (Toyota 2008: 35). Perfectives still exhibit a primarily transitivity-based split auxiliary system in Italian and German, for example. Modern English uses *have* for both transitive and intransitive verbs today, normalizing the syntax to the nominative-accusative alignment found elsewhere in the grammar; the same change occurred in Spanish (Rosemeyer 2014).

Although most of the languages in focus are Indo-European (Germanic, Romance, Slavic), we also consider data from the languages they have long been in contact with, such as those belonging to the Finno-Ugric family (Finnish, Hungarian), and Basque. Similar developments are attested elsewhere as well, such as absolutively aligned periphrastic participial constructions in Panare, a Cariban language spoken in Venezuela (Payne & Payne 2013). Compared to different alignment systems cross-linguistically, we find similarities beyond ergative-absolutive (Italian, earlier English) and nominative-accusative (contemporary English, Spanish): German has what looks like tripartite system (*have* vs. *be* for transitive agent vs. intransitive subject; *become* in passives for patients), and Italian hints at split intransitivity in auxiliary selection for some intransitives (*be+go* vs. *have+walk*). While explaining the diachrony of European participial periphrasis and relating it to other cross-linguistic trends, we emphasize the role of participle alignment in the grammaticalization of periphrastic constructions.

References

Haspelmath, M. (1994). Passive participles across languages. In Fox, B. & Hopper, P. J. (eds.), *Voice: Form and Function*. Amsterdam: John Benjamins, 151–177.

Moravcsik, E. A. (1978). On the distribution of ergative and accusative patterns. Lingua, 45 (3–4), 233–279.

Payne, T. E. & Payne, D. L. (2013). A typological grammar of Panare, a Cariban language of Venezuela (Brill's Studies in the Indigenous Languages of the Americas, 5). Leiden: Brill.

Rosemeyer, M. (2014). Auxiliary selection in Spanish: gradience, gradualness, and conservation. Amsterdam: John Benjamins.

Shagal, K. (2017). Towards a typology of participles. University of Helsinki. (Doctoral dissertation.)

Sorace, A. (2000). Gradients in Auxiliary Selection with Intransitive Verbs. Language, 76 (4), 859–890.

Toyota, J. (2008). Diachronic change in the English passive. Houndmills, Basingstoke, Hampshire: Palgrave Macmillan.

The form and meaning of participles from Latin to Italoromance: A morphosyntactic analysis

Eva-Maria Remberger
(University of Vienna)

Participles are hybrids with respect to their syntactic category since they belong to verbal paradigms on the one hand, but behave as nominal elements (adjectives) on the other. For an interpretation of the morphosyntactic status of participles, in particular their appearance as predicative elements in verbal periphrases as well as their capability to modify nouns, an analysis in the framework of Distributed Morphology (DM) (Halle & Marantz 1993, Halle 1997) seems to be particularly appropriate: with the help of DM it is possible to model the interactions of syntactic projections, morphosyntactic features and morphophonological realisations in an elegant way since it allows for specific vocabulary insertion, but also underspecification and last resort mechanisms (cf. in the context of verbal morphology, e.g. Oltra 1999, Ippolito 1999, Embick 2002, 2005; Pomino 2008). In my talk I start from some analyses of the Latin participles, in particular the past participle and the future participle, proposed in traditional historical studies (cf. Lease 1919, Ernout 1953, Garuto 1954, Leumann et al. 1963) as well as some well-known synchronic morphological analyses (cf. Matthews 1972, Aronoff

1992). I then propose that the diachronic development from Latin to (Italo-)Romance can explain certain grammatical features also in synchronic morphosyntactic structures. Within the DM-approach, I propose a functional segmentation of participles which concentrates on the interpretative value of the aspectual feature (or aspect head) that is morphophonologically realised by *-t-* in regular participial forms (*laudā-t-us, lauda-t-ūrus*). I argue that this aspectual feature was still nominal in nature (an n/Asp head) at least in Latin and that even in the Modern Romance languages this aspectual meaning in the structure of past participles can clearly be distinguished from what is usually called verbal perfectivity (also in the case of compound perfect formation with unergative verbs). On the basis of these results (cf. Remberger 2012) I will then discuss other phenomena regarding participles – and possibly concerning the same functional head – in (Italo-)Romance: 1) the emergence of certain types of nouns derived from participial morphology (like the Italian nouns in *-ata*, e.g. *camminata* 'long walk', *giornata* 'day as a whole', cf. von Heusinger 2002, Acquaviva 2004, Folli & Harley 2010), 2) the grammatical split found in some (Italo-)Romance varieties, viz. the partly division of labour between irregular, more adjective-like participles (*chiusu* 'closed, shut down') and regularly formed verbal participles (*chiurutu* 'closed', cf. Ledgeway 2008), 3) the appearance of short-form participles, as e.g. in *L'Italia s'è desta* (instead of *destata*), mostly in central Italian varieties (cf. Schürmann 1890), and 4) particular periphrastic constructions involving transitive verbs transformed into unaccusatives, like *Manciati siti?* (literally 'Are you eaten?', cf. Ledgeway & Bentley 2012). Not only verbal periphrases involving participles, but especially also the regular-irregular and the short-long alternation can only be explained by a thorough consideration of both their morphosyntactic structures and the syntactic environments in which they appear.

References

Aronoff, Mark (1994): *Morphology by itself: Stems and inflectional classes.* Cambridge Mass.: MIT Press.

Acquaviva, Paolo (2004): "Constraining Inherent Inflection: Number and Nominal Aspect." In: *Folia lingüística: Acta Societatis Linguisticae Europaeae* 38/3-4, 333-354.

Bentley, Delia & Adam Ledgeway (2012): "*Manciati siti?* Les constructions moyennes avec les participes résultatifs-statifs en italien et dans les varieties italo-romanes méridionales." Talk at the *Journée d'études "Le moyen: données linguistiques et réflexions théoriques"* – 16 novembre 2012, Paris.

Embick, David (2000): "Features, Syntax, and Categories in the Latin Perfect." In: *Linguistic Inquiry* 31/2, 185–230.

Embick, David & Morris Halle (2005): "On the status of stems in morphological theory." In: T. Geerts & H. Jacobs (eds.): *Proceedings of Going Romance 2003*
(http://www.ling.upenn.edu/~embick/stem.pdf <25.09.09>).

Ernout, Alfred (³1953): *Morphologie historique du latin.* Paris: Klincksieck.

Folli, Raffaela & Heidi Harley (2010): "Italian event nominalisations in *-ata*." Talk given at the Workshop *Temporalité: typologie et acquisition* (Temptypac), Paris.

Garuti, Govanni (1954): *Il tipo –TURUS + SUM nel latino arcaico.* Bologna: Gallo.

Halle, Morris (1997): "Distributed morphology: Impoverishment and fission." In: Benjamin Bruening, Yoonjung Kang & Martha McGinnis (eds.): *Papers at the Interface. MITWPL 30*, Cambridge, 425-449.

Halle, Morris & Alec Marantz (1993): "Distributed Morphology and the Pieces of Inflection." In: Kenneth Hale & S. Jay Keyser (eds.): *The View from Building 20.* MIT Press, Cambridge, 111-176.

von Heusinger, Klaus (2002): *Italian Nominalization of -ata: Derivation and the Structure of the Lexicon.* Konstanz: Konstanzer Arbeitspapiere 109.

Ippolito, Michela (1999): "On the past participle morphology in Italian." In: *MIT Working Papers in Linguistics* 33, 111-137.

Lease, Emory B. (1919): "The use and range of the future participle." In: *American Journal of Philology.* 40, 262-285.

Ledgeway, Adam (2000): *A comparative syntax of the dialects of Southern Italy: A minimalist approach.* Oxford: Blackwell.

Leumann, Manu, Johann Baptist Hofmann & Anton Szantyr (1963): *Lateinische Grammatik auf der Grundlage des Werkes von Friedrich Stolz und Joseph Hermann Schmalz.* Bd. 1: *Lateinische Laut- und Formenlehre.* München: Beck.

Matthews, Peter (1972): *Inflectional Morphology: A Theoretical Study Based on Aspects of Latin Verb Conjugation.* Cambridge University Press, Cambridge.

Oltra, Maria-Isabel (1999): *On the Notion of Theme Vowel: A New Approach to Catalan verbal Morphology.* MA Thesis, MIT.

Pomino, Natascha (2008): *Spanische Verbalflexion: eine minimalistische Analyse im Rahmen der Distributed Morphology.* Tübingen: Niemeyer.

Remberger, Eva-Maria (2012): "Participles and nominal aspect." In: Sascha Gaglia & Marc Olivier Hinzelin (eds.): *Inflection and word formation in Romance languages.* Benjamins [Linguistik Aktuell/Linguistics Today 186], 271-294.

Schürmann, Johannes (1890): *Die Entstehung und Verbreitung der sogenannten "verkürzten Partizipien".* Inauguraldissertation, Universität Strassbourg: DuMont-Schauberg.

The properties of perfect(ive) and (eventive) passive participles: an identity approach

Dennis Wegner
(University of Wuppertal)

The morphophonological identity of past participles in passive and perfect periphrases in Germanic and Romance points to the possibility of substantial syntacticosemantic identity (cf. Ackema 1999: 87f.). The fact that perfect(ive) and passive participles have the same diachronic source, namely an (anticausative) deverbal adjective that is interpreted in a resultative fashion (cf. stative passive and stative perfect), supports this intuition. Although this identity need not be retained and hence does not suffice to answer the question of synchronic past participial (non-)identity, some core properties of the diachronic predecessor still shine through. These are aspectual (resultativity of a simple change of state) as well as argument structural (suppression of an external argument) in nature and allow us to make a principled case for substantial past participial identity.

The argument structural contribution is clearly observable in bare instantiations (e.g. adnominal or adverbial) and the periphrastic passive, where an external argument (if present) is marked for existential binding. In fact, this presence of an existentially-bound cause may (diachronically at least) be taken to be derived from the desire to supplement the adjectival element with verbal properties (see Abraham 2000: 152f.). Crucially, an external argument may thus only be instantiated in the form of an adjunct *by*-phrase or properly be licensed as a syntactic argument with the help of have (see Ackema & Marelj 2012).

The aspectual contribution is contingent on event structure (unlike in aspectual languages, e.g. in Slavic) and may only evoke boundedness with simple changes of state. Accordingly, an eventive past

participle becomes perfective if the verb is unaccusative (anticausative). With unergatives and transitives, however, it remains imperfective, as in passive cases – unless have steps in. This auxiliary contributes perfect information (see Iatridou et al. 2001: 220), namely posteriority, which grants a perfect interpretation, though occasionally without forcing the event to end (cf. the universal perfect).

These assumptions account for auxiliary selection and are substantially supported, *inter alia*, by the impoverishment of participial morphology (cf. (1) and (2)) (see Breul 2014, Askedal 1991).

(1) a. *I don't know how he found out that she belonged to that lass, but* find out *he* has.
     b. *It will never be known how Jarman was caught, but* *catch/caught *he* was.

(2) a. *dass er sie   hat   schlafen *gelassen/   lassen*   (German)
         that he her   has   sleep   let.ptcp/   let.inf
         'that he has let her sleep'

     b. *dass sie   schlafen gelassen/ *lassen   wurde*   (German)
         that she   sleep   let.ptcp/ let.inf   became
         'that she was allowed to remain sleeping'

     c. *dass er   stehen geblieben/   *bleiben   ist*   (German)
         that he   stand remain.ptcp/ remain.inf is
         'that he remained standing'

Assuming that impoverishment is barred whenever it endangers semantic recovery, these data show that have provides relevant information for the denotation of an active perfect, whereas be and werden only serve to express (non-)finiteness. In addition to these divergent realizations, evidence may also be gained from the properties of bare past participles, whose (im)perfectivity often correlates with (anti)causativity. Eventually, the two-fold contribution of past participles invigorates the syntacticosemantic identity of past participles.

Basque adjectival participles are functionally richer

Ane Berro

(University of Deusto)

The research on resultative adjectival participles is an area of substantive study for the analysis of the interface between syntax and the lexicon (Wasow 1977) and syntax and morphology (Marantz 2001 2007; Anagnastopoulou and Samioti 2014), as well as for study of lexical categories and the projection of syntactic heads like v and Voice. In this talk, I address adjectival resultative participles in Basque, an ergative language, and I compare them with their counterparts in German, English and Greek. Basque adjectival participles (headed by *-a*) (1) (2) are different from verbal ones (bare participles) (3) in that they can appear in attributive and predicative position with different types of copulas, they can be the complement of AP selecting verbs (*irudi*, *eman* 'seem, look like') and in that they can be modified by degree adverbs like *oso* 'very' or superlatives and comparatives.

In this talk, I provide a syntactic analysis for Basque adjectival participles arguing that they can be vP and VoiceP-derived, as it has been argued for Greek (Anagnostopoulou 2003; Alexiadou & Anagnostopoulou 2008; Anagnostopoulou & Samioti 2014; Alexiadou et al. 2014; Alexiadou et al. 2015). The projection of vP and VoiceP is supported by their compatibility with event-related modifiers (also temporal and spatial) (1ab), as well as by the presence of a non-agreeing ergative

subject (2) that is interpreted as the *initiator* (Ramchand 2008) of the event underlying in the resultative participle.

(1)   a. Auto-a   kontu handi-z/ arreta-rik   gabe   konpon-du-a   da/dago
          car-det.abs   care   big-instr attention-part without   fix-ptcp-res be/be(stage level).3sgabs
          'The car is fixed carefully/sloppily'
        b. Auto-a   atzo /   Ane-ren   garaje-an   konpon-du-a   da/dago
          car-det.abs   yesterday Anne-gen   garage-ine   fix-ptcp-res be/be(stage level).3sgabs
          'The car is fixed yesterday/in Anne's garage'
(2)   Auto-a   Jon-ek   konpon-du-a   da
        car-det.abs   John-erg   fix- ptcp -res   be.3sgabs
        'The car is fixed by John'

Note that in perfect clauses (3), consisting of verbal (bare) participles, –and all tensed clauses in general–, the ergative subject always agrees with the auxiliary, a fact that is explained considering that perfect clauses are monoclausal and that adjectival participial configurations (1)-(2) are bi-clausal. In adjectival participles, the ergative argument is projected in [spec, Voice] within the domain of the participle (2). Since (2) is bi-clausal, and agreement and scrambling are clause-bound in Basque, the ergative subject in (2) is fixed to the pre-participial position and does not agree with the matrix copula (Ortiz de Urbina & Uribe-Etxebarria 1991). In a simple monoclausal configuration like (3), on the contrary, the ergative subject shows free word order, and agrees with the inflectional element, which is an auxiliary.

(3)   (Jon-ek) auto-a   (Jon-ek)   konpon-du   du   (Jon-ek)
        John-erg car-det.abs   John-erg   fix- ptcp   be.3sgabs   John-erg
        'John has fixed the car'

The fact that the event underlying the adjectival participle in Basque can be spatially and temporally located (at a different space and at a different temporal interval of those asserted in the copula) suggests that, in Basque adjectival participles, the event is actually instantiated, contrary to the event of adjectival passive participles in German and English, which remains in the kind domain (Gehrke 2011). Gehrke (2015) argues that, in German, the verb's event variable is existentially bound when the participle is adjectivized. It is not embedded under aspectual or tense projections. Therefore, the event remains in the kind domain. Building on Alexiadou et al. (2014) and Alexiadou et al. (2015), I will propose that Basque adjectival participles are functionally richer than in languages like German and English, and that they pattern more with Greek; they involve a further Aspectual head projected above vP/VoiceP and below the Adjetivizing head. Still, Basque is different from Greek in that the external argument is not absorbed in Basque.

References:

Alexiadou, Artemis and Elena Anagnostopoulou. 2008. Structuring participles. In *Proceedings of the WCCFL* 26, eds. C.Chang and H.Haynie. Somerville, MA: Cascadilla Press, 33–41.

Alexiadou, Artemis, Elena Anagnostopoulou and Florian Schäfer. 2015. *External Arguments in Transitivity Altenations. A Layering Approach*. Oxford: Oxford University Press.

Alexiadou, Artemis, Berit Gehrke and Florian Schäfer. 2014. The argument structure of adjectival participles revisited. *Lingua* 149:118-138.

Anagnostopoulou, Elena 2003. Participles and Voice. In *Perfect explorations*, eds. A. Alexiadou, M.Rathert and A. von Stechow. 1-36. Berlin: Mouton de Gruyter.

Anagnastopoulou, Elena and Y. Samioti. 2014. Domains within words and their meanings: A case study. In *The Syntax of Roots and the Roots of Syntax*, eds. A. Alexiadou, H. Borer and F. Schäfer. Oxford: Oxford University Press.Alexiadou et al. 2015

Gehrke, Berit. 2011. Stative passives and event kinds. In *Proceedings of Sinn und Bedeutung* 15, eds. I. Reich, E. Horch and D. Pauly. 241-257. Saarbrücken: Universaar – Saarland University Press.

Gehrke, Berit. 2015. Adjectival participles, event kind modification and pseudoincorporation. *Natural Language and Linguistic Theory* 33-3: 897-938.

Marantz, Alec. 2001.Words. WCCFL XX Handout, USC, February 2001.

Marantz, Alec. 2007. Phases and Words. In *Phases in the Theory of Grammar*, ed. S.-H. Choe. Seoul: Dong In. 191-222

Ortiz de Urbina, Jon and Myriam Uribe-Etxebarria. 1991. Participial predication in Basque. *ASJU Gehigarriak* 14-2. 993–1012.

Ramchand, Gillian. 2008. *Verb Meaning and the Lexicon: A First Phase Syntax*. Cambridge: Cambridge University Press.

Wasow, Thomas. 1977. Transformations and the lexicon. In *Formal Syntax*, eds. P. Culicover, T. Wasow and J. Bresnan. 327-360. New York: Academic Press.

Zabala, Igone. 1993. *Predikazioaren teoriak gramatika sortzailean (euskararen kasua)*. Doctoral Dissertation, UPV/EHU.

High and Low Participles in German

Tillmann Pross

(University of Stuttgart)

Lexicalist (e.g. Wasow (1977); Levin and Rappaport (1986); Kratzer (2000); Gehrke (2015)), syntactic (e.g. Embick (2004); Bruening (2014)) as well as hybrid approaches (Alexiadou et al., 2014) to adjectival participles uniformly assume that adjectival participles are derived from verbal constructions. Adopting a root-based account of word formation à la Halle and Marantz (1993), I argue that this is only half the story for German: there is an additional type of participle in which the verb is derived from the participle (and not the other way round).

The basic challenge for a morphologically informed account of the formation of German adjectival participles is that unprefixed constructions as in (1) but not adjectival participles of prefix-constructions with e.g. *be-* as in (2) are derived from a construction prefixed with the morpheme *ge-*.
I explain the split formation of German participles by arguing that *be-* functions as a participle morpheme which differs from the standard participle morpheme *ge-* in its syntactic position in the derivation. Basically, while *ge-* is syntactically located above the verbal functional layer (and thus is not a proper part of the morpho-semantics of the verb *malen* in (1-a)), *be-* is syntactically located below the verbal functional layer and thus is morphologically and semantically always present in the verb. I arrive at a structural differentiation of 'high' *ge-*participles and 'low' *be-*participles as in (3) and (4).

(3)
```
                PP
         DP
         das        P'
         Bild
               P        aP
                     a       PrtP
                          Prt      vP
                          ge-
                               v    √mal
```

(4)
```
                          vP
                 PP                    v
         DP
         die        P'
         Wand
               P         aP
                     a        PrtP
                          Prt       nP
                          be-
                                n    √mal
```
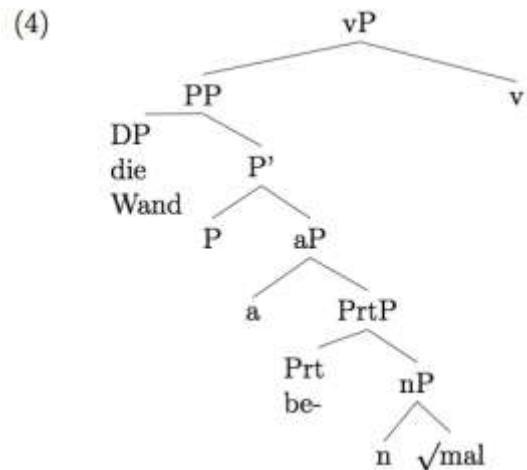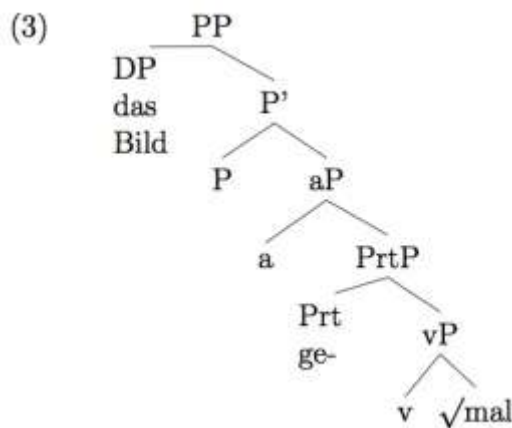
Pace Wunderlich (1987), I argue that the prefix *be-* in (2-b) derives a property from the noun *Mal* ('mark, spot') (a function that returns for each time and world the extension of the noun *mark*) that could be described as 'markedness'. In contrast, prefixation of the verb with *ge-* in (1) derives an event property 'being painted'. The stative component of adjectival participles is introduced by a PP that predicates the single argument of the participle to 'have' the adjectival property for a certain amount of time, yielding a resultant state in the case of high participles (whether or not (1-b) is true requires to determine properties that indicate whether the picture in (1-b) has been painted (but not e.g. printed)) and a target state in the case of low participles (whether or not (2-b) is true can be determined on the basis of the inspection of the wall), adopting the terminology of Parsons (1990)

Among others, the analysis accounts for the much-debated problem of the correct analysis of break-type roots (Embick, 2009; Beavers and Koontz-Garboden, 2017) (in which the result state of the verb is a participle) and lends additional support to the semantic incorporation analysis of the licensing of event-oriented modifiers developed in Gehrke (2015), which I recast in terms of an abductive inference to the best explanation of the participial state: the kind of event that could have caused the target state in (4) and the resultant state in (3).

References

Alexiadou, A., Gehrke, B., and Schäfer, F. (2014). The argument structure of adjectival participles revisited. *Lingua*, 149:118–138.

Beavers, J. and Koontz-Garboden, A. (2017). Change of state verbs and the semantics of roots. In *Proceedings of the 34th West Coast Conference on Formal Linguistics*.

Bruening, B. (2014). Word formation is syntactic: adjectival passives in english. *Natural Language and Linguistic Theory*, 32(2):363–422.

Embick, D. (2004). On the structure of resultative participles in english. *Linguistic Inquiry*, 35:355–392.

Embick, D. (2009). Roots, states, and stative passives. Handout at the Roots Workshop, University of Stuttgart.

Gehrke, B. (2015). Adjectival participles, event kind modification and pseudo-incorporation. *Natural Language and Linguistic Theory*, 33(3):897–938.

Halle, M. and Marantz, A. (1993). Distributed morphology and the pieces of inflection. In Hale, K. and Kaiser, S. J., editors, *The View from Building 20. Essays in Linguistics in Honor to Sylvian Bromberger.*, pages 111 – 176. MIT Press.

Kratzer, A. (2000). Building statives. In *Proceedings of the Twenty-Sixth Annual Meeting of the Berkeley Linguistics Society*, pages 385–399.

Levin, B. and Rappaport, M. (1986). The formation of adjectival passives. *Linguistic Inquiry*, 17:623–661.

Parsons, T. (1990). *Events in the Semantics of English. A Study in Subatomic Semantics.* MIT Press.

Wasow, T. (1977). Transformations and the lexicon. In Culicover, P., Akmajian, A., and Wasow, T., editors, *Formal syntax*, pages 327–360. Academic Press, New York.

Wunderlich, D. (1987). An investigation of lexical composition: the case of German *be-* verbs. *Linguistics 25*, 25:283–331.

On the performative use of the past participle in German

Bjarne Ørsnes

(Copenhagen Business School)

It is well-known that (independent) main clauses can be headed by non-finite verbs in German (Gärtner, 2013) and that main clauses headed by a past participle have a directive illocutionary force (*Stillgestanden!* (lit.) 'stood still') (Donhauser 1984, Heinold 2014). This paper aims to show that past participles also head main clauses as performative speech acts with the illocutionary force of *consent* (henceforth: PfPs). As a secondary outcome the paper seeks to establish *consent* (agreement on the truth of assertions and goals) as a speech act.

The PfP has received little attention though mentioned in e.g. Fries (1983).

> *(Hiermit) kapiert! /   akzeptiert! / versprochen! / zugegeben! / geeinigt! / garantiert!*
> Hereby   understood accepted   promised   admitted   agreed   guaranteed

The PfPs in (1) are performative in that the verbs denote a speech act, which is carried out through the act of uttering the PfP and they license the adverb *hiermit* 'hereby' indicating self-referentiality (Eckhardt 2012). The PfP alternates with the affimative particle *Ja!*

> A: *Du holst mich also ab.*
>   So you will pick me up
> B: *Versprochen! / Ja!*
>   Promised   Yes

The PfP canonically appears as a bare participle, all arguments being optional, including obligatory reflexives (*sich einigen* 'to agree' → (*Sich) *Geeinigt!* 'agreed'). Only a dative recipient argument may appear, and certain (evaluative) adverbials:

> *Allen Fans hiermit versprochen!*
> all   fans   hereby promised
> *Leider   zugegeben!*
> regretfully admitted

The agent and (usually) the recipient are situationally restricted to the speaker and the hearer (with the exception of "delegated speech", Eckhardt 2012), while the propositional theme (what is

understood, accepted, promised etc.) must be resolved ana- or cataphorically. It cannot occur as a complement.

> *??/*Versprochen, dass ich komme!*
> promised   that I come

Due to the impossibility of realizing the agent and the theme, the diathesis of the participle cannot be determined. Constructions with copula + adjectival passives allow performative readings (Brandt et al., 1989), but the paper shows that the PfP is no elliptical variant as in (6), since the PfP has (idiosyncratic) distributional and interpretational properties distinct from copula clauses. As a matter of fact the affirmative, consenting semantics of the PfP does not appear to be compositionally derivable, suggesting that this is a construction in the conservative sense, i.e. an arbitrary pairing of form and meaning (Fillmore, Kay and O'connor 1988).

> *Das ist hiermit versprochen!*
> that is   hereby promised

The paper provides an account of the pragmatics of the PfP within the conversational framework of Farkas and Bruce (2011). The PfP is shown to express consent: accept of an assertion or a proposal (a directive). The PfP can not be used to deny an assertion or dismiss a directive, nor can be it used to answer a polar question. Elucidations from informants suggest that acceptance of a PfP as a response to e.g. exclamatives or interrogatives depends on the extent to which these sentence types can be understood as assertions or directives. The analysis is extended to cover the use of the PfP in monologues as in (7). Some PfPs such as *zugegeben* 'admitted' even shows signs of becoming concessive subordinators.

> *Zugegeben.*   *Ich*   *habe*   *keine*   *Minute*   *von*   *Schweiz-Honduras*   *gesehen.*
> Admitted   I didn't watch a single minute of Switzerland-Honduras

The data is drawn from the COSMAS-corpus (IDS) combined with (small-scale) informant questionnaires.

References

Brandt, Margareta, Falkenberg, Gabriel, Fries, Norbert, Liedtke, Frank, Meibauer, Jörg, Öhlschläger, Günther, Rehbock, Helmuth & Rosengren, Inger (1989): Die performativen Äußerungen – eine empirische Studie. In: *Sprache und Pragmatik 12*, Lund: Germanistisches Institut der Universität Lund: 1-21.

Donhauser, Karin (1984). Aufgepasst. Überlegungen zur Verwendung des Partizips im Deutschen. *Studia linguistica et philologica*. Festschrift für Klaus Matzel zum 60. Geburtstag. Überreicht von Schülern, Freunden und Kollegen. Eroms, Hans-Werner/Gajek, Bernhard/Kolb, Herbert (Hgg.)

Eckhardt, Regine (2012). Herby explained: an event-based account of performative utterances. *Linguistics and Philosophy*, 35: 21-55.

Farkas, D. & Bruce, K. (2011). On reacting to assertions and polar questions. *Journal of Semantics* 27, 81-118.

Fillmore, Charles J., Paul Kay, and Mary C. O'Connor. 1988. Regularity and Idiomaticity in Grammatical Constructions: The Case of Let Alone. *Language* 64(3).501–538.

Fries, Norbert (1983): *Syntaktische und semantische Studien zum frei verwendeten Infinitiv*. Tübingen: Narr. (= Studien zur deutschen Grammatik, 21).

Gärtner, Hans-Martin (2013). Infinite Hauptsatzstrukturen. In: *Satztypen des Deutschen*. Jörg Meibuer, Markus Steinbach & Hans Altmann (hgg.). De Gruyter, 202-231.

Heinold, Simone (2014): Eigenschaften von direktiven Partizipien im Deutschen. *Deutsche Sprache*. 13.4, 313-335.

Two types of non-agreeing participles in Lithuanian: Implications for the theories of agreement and case

Peter Arkadiev

(Institute of Slavic Studies of the Russian Academy of Sciences / Russian State University for the Humanities)

Lithuanian participles combine verbal features of tense and voice with adjectival inflection for gender, number, and case. Like adjectives, participles agree in gender, number and case with the head of the DP when used attributively (1a) or with the nominative subject of the clause when used predicatively, e.g. as lexical verb in the periphrastic perfect or passive (1b).

(2)　　a.　　***nuvažiav-ęs***　　*traukin-ys*
　　　　　　　leave-pst.pa.<u>nom.sg.m</u>　train(<u>m</u>)-<u>nom.sg</u>
　　　　　　　'the train that left'
　　　b.　　*traukin-ys*　　*jau*　　*yra*　　***nuvažiauv-ęs***
　　　　　　　train(<u>m</u>)-<u>nom.sg</u>　　　already　aux.prs.3　　leave-pst.pa.<u>nom.sg.m</u>
　　　　　　　'the train has already left'

Along with forms inflecting for agreement features, Lithuanian participles have two forms lacking them: (i) forms traditionally called "neuter gender" (Ambrazas (ed.) 2006: 346), which I term "default agreement forms" (DF) (2); (ii) forms traditionally called "gerunds" (Ambrazas (ed.) 2006: 339–340) or non-inflecting participles (NI) (3).

(3)　　*Buv-o* ***privažiav-ę***　　*policij-os*　　*automobili-ų...*
　　　　aux-pst.3　　　arrive-pst.pa.df police-gen.sg　car-gen.pl
　　　　'There arrived a lot of police cars...' (LKT)
(4)　　***Privažiav-us*** *Kaun-ą,*　　*vairuotoj-us*　　*pasitink-a*　　*tams-a.*
　　　　arrive-pst.pa　Kaunas-acc.sg　driver-acc.pl　meet-prs.3　darkness-nom.sg
　　　　'When we reached Kaunas, the drivers were caught by darkness.' (LKT)

　　On the basis of both corpus and elicited data I examine the distribution of DF and NI and show that a principled difference exists between them in the morphosyntactic conditions triggering non-agreement.

　　DFs are formed from active and passive participles and occur in the predicative position in the absence of a nominative subject characterized by gender and number features (e.g. with verbs assigning lexical case to all their arguments). By contrast, NIs are only formed from active participles and occur in complement and adjunct clauses whose subject does not coincide with the nominative

subject of the matrix clause. When the subject of the dependent clause is overt, it is marked accusative in complement (4) and dative in adjunct (5) clauses.

(5)   *išgird-o-me*   [***nuvažiuoj-ant*** *į*   *stot-į*   *automobil-į*]
       hear-pst-1pl   depart-prs.pa   in   station-acc.sg   car-acc.sg
       'We heard a car going away to the station.' (LKT)

(6)   [*Traukini-ui*   ***nuvažiav-us***   *nuo*   *bėgi-ų*],
       train-dat.sg   depart-pst.pa   from   rails-gen.pl
       pasekm-ės   *galėj-o bū-ti*   *daug*   *skaud-esn-ės.*
       consequence-nom.pl   can-pst.3   be-inf   much   painful-comp-nom.pl.f
       'If the train run off the rails, the consequences could be much more painful.' (LKT)

When a periphrastic verbal form occurs in a participial clause with an overt non-nominative subject, the participle of the lexical verb fully agrees with the subject (6), while the auxiliary remains uninflected.

(7)   *Vartoj-a-m-a*   [***es-a-ntpa-varg-us-ioms***   *rank-oms*].
       use-prs-pp-df   aux-prs-pa   prv-tire-pst.pa-dat.pl.f   arm(f)-dat.pl
       'It is used when one's arms are tired.' (Google)

The distribution of NIs shows that their occurrence is determined by the properties of the functional layer of the clause: they are admitted only in the T head, and their distribution is sensitive to the assignment of structural (nominative vs. non-nominative) case and to interclausal relations (switch-reference, cf. Camacho 2010), i.e. to the C(omp) level. By contrast, DF occurs when the lack of a (φ-complete) nominative subject is determined at the early stage of the derivation (VP and vP), in particular if all arguments receive lexical non-nominative case ("assignment of case upon first merge", Preminger 2011: 151).

References

Ambrazas, Vytautas, ed. 2006. *Lithuanian Grammar*. Vilnius: Baltos Lankos.

Arkadiev, Peter. 2012. Participial complementation in Lithuanian. In: Volker Gast & Holger Diessel (eds.), *Clause Linkage in Cross-Linguistic Perspective: Data-Driven Approaches to Cross-Clausal Syntax.* Berlin, New York: Mouton de Gruyter, 285–334.

Camacho, José. 2010. On case concord: The syntax of switch-reference clauses. *Natural Language and Linguistic Theory* 28, 239–274.

Greenberg, Gerald & James E. Lavine. 2006. New syntax in Russian and Lithuanian: The case of the adverbial participle. In: Robert Rothstein, Edward Scatton & Charles Townsend (eds.), *Studies in Slavic Linguistics and Folklore*. Bloomington (IN): Slavica, 143–170.

LKT – Lietuvių kalbos tekstynas (Corpus of Lithuanian), http://tekstynas.vdu.lt.

Preminger, Omer. 2011. *Agreement as a Fallible Operation*. Doctoral dissertation, MIT.

On the syntax and semantics of participles in the double perfect in Alemannic

Martin Salzmann & Gerhard Schaden
(Leipzig University & Université Lille 3)

One of the major challenges of the double perfect construction (*have had read*, *is been gone*) as found in Alemannic varieties is that it lacks the full interpretive range of either the simple present perfect or the pluperfect.

(1)   [Peter didn't go to work on Tuesday, because…]
        er   am   Mäntig   künt   gha   hät
        He   on   Monday   resigned   had   has

If the subordinate clause in (1) contained a present perfect or a pluperfect, the sentence would allow for a reading where the resignation takes place *on* Monday (or before); with the double perfect, the resignation must have occurred *before* Monday.

In our talk, we will show - based on data drawn from the descriptive literature and questionnaire studies - that the major interpretations of the Alemannic double perfect, viz., the anterior and the superperfect/reversed result reading, can be derived from a single semantic representation (based on Rothstein, 2008), and crucially involve a resultative component. Importantly, though, the double perfect is not entirely stative, it also involves an eventive component (which can be diagnosed by means of the usual adverbs, e.g., *deliberately, slowly*, etc.). This mixed interpretive behavior can be captured by means of a mixed category (an adjective embedding a verbal projection, cf. Koeneman et al. 2011). Importantly, given the assumption that there is no true doubling in syntax, the participial *have/be* must be interpreted as a copula. This in turn enforces the adjectival nature of the lexical participle (assuming that the copula cannot take verbal complements). Crucially, while the categorial structure of the lexical participle is initially motivated on the basis of the interpretive properties of the construction, we will provide new morpho-syntactic evidence that the construction indeed involves an adjectival component: First, the double perfect construction displays ordering restrictions in the verb cluster that are not found with other clusters (for instance, participles cannot be cluster-final, unlike in Aux-Part clusters). Second, the lexical participle in the double perfect construction systematically bears adjectival inflection in some Highest Alemannic varieties (which also show adjectival inflection on predicative adjectives).

(2)   win   er   der   Namen Gott-es   het   usgsprochn-a   ghabe
        How   he   the   name god.genhas   pronounced-m.sg   had

Since it has been observed for 2-verb clusters in these varieties that inflected participles are not obligatory, but when present, that they induce a resultative reading (e.g., *He has his hair washed.agr -> his hair is in a washed state; vs. *He has his hair washed.ɸ* -> He washed his hair), inflection in the double perfect provides striking evidence for the resultative component which we take to be at the heart of its different interpretations.

Time permitting, we will discuss passive constructions with inflected participles. Contrary to what one might suspect, not only stative, but also eventive passives obligatorily require inflected participles. We will propose that the eventive component comes from the auxiliary, which reactivates the eventive component (rather than assuming a different representation for the participle).

Selected References

Hodler, W. (1969): *Berndeutsche Syntax*. Bern: Francke Verlag.

Koeneman, O.; Lekakou, M.; Barbiers, S. (2011): Perfect Doubling. *Linguistic Variation 11*: 35-75.

Rothstein, B. (2008): *The Perfect Time Span: On the Present Perfect in German, Swedish, and English*. Amsterdam: John Benjamins.

Participial relatives in Russian: internal structure and feature resolution

Lena Ibnbari

(Ben Gurion University of the Negev)

Russian has a productive system of participles that function as NP-modifiers (1), known as restrictive Participial Relatives (PR).

(1) a. čelovek pokupajuščij / kupivšyj knigu
man buy.prtc.imprf.pres buy.prtc.prf.past book
'a man buying the book/who bought the book'

b. kniga pokupaemaja / kuplennaja vsemi
book.sg.f buy.prtc.imprf.pass.pres /buy.prtc.prf.pass.past everybody
'a book bought by everybody'

In Right Node Raising environments PR allow for split antecedents (2). Notably, although the head NPs are both singular, the PR is semantically and morphologically plural.

(2) Ja znaju devušku a Olja znaet parnja,
I know girl.**sg** but Olya knows young-man.**sg**
prožyvajuščix vmeste v sosednej kvartire.
live.prtc.imprf.pres.**pl** together in neighboring apartment
'I know a girl and Olya knows a young man living together in the apartment next door.'

The talk pursues two goals: first, to argue for the clausal structure of Russian PRs (3), and against the phrasal subjectless structure (4) (Doron and Reintges, 2005).

(3) NP_i [$_{CP}$ pro_i [$_{TP}$ t_{pro} [$_{PrtcP}$ [$_{vP}$ t_{pro}]]]]
(4) [DP [PrtP [TAM [VP]]]]

Evidence in support of the clausal analysis of PR is provided. Along with the familiar independent time reference (Belikova, 2008, Doron and Reintges, 2005), novel diagnostics are presented, such as PR-internal topicalization, licensing of Genitive-of-Negation and NPI. Moreover, I argue that PR includes a minimal *pro* subject (Kratzer, 2009). Licensing of the PR-internal reflexive (5), as well as plural agreement on the participle support this analysis.

(5) Ja znaju devušku a Olja znaet parnja,
I know girl.**sg** but Olya knows young-man.**sg**
postojanno sporjaščix *drug s drugom* po meločam.
constantly argue.prtc.pres.**pl** one with other on trifles
'I know a girl, and Olya knows a young man, who constantly argue with each other over unimportant things.'

The second goal is to propose a mechanism of feature valuation in (shared) PR. The minimal *pro* enters the derivation unspecified for φ-features, these are acquired from the head NP(s) under Agree. I adopt Pesetsky and Torrego's (2007) analysis of Agree as feature sharing. The analysis of RNRed PR is couched within the theory of Multidominance (MD) (Citko, 2005, 2011) that opens up the possibility of multiple simultaneous Agree (Zeijlstra, 2012).

The *pro* hosts referential indices transmitted to it from the head NPs. This explains semantic plurality of the RNRed PR in (2) and (5). Morphological PL results from transmission of two φ-sets onto the *pro*. Following Kratzer I assume that multiple individual features on the *pro* are combined due to the feature [sum] on the *pro*. The morphological rules of the language realize the complex φ-set as a plural value for [number] on the participle. In fact, the shared *pro* is akin to the overt bound pronoun in (6).

(6) Every woman$_j$ told a man$_j$ that they$_{i+j}$ were a happy couple.

Some potential problems for the proposed analysis are addressed. One such problem is Spell Out of PR-internal phasal chunks that contain unvalued features. It is resolved under the assumption that feature valuation can be delayed to avoid a PF crash (Carstens, 2016).

References

Belikova, Alyona. 2008. Syntactically challenged rather than reduced: Participial relatives revisited. Paper presented at *Proceedings of the 2008 annual conference of the Canadian Linguistic Association*.

Carstens, Vicki. 2016. Delayed Valuation: A Reanalysis of Goal Features, "Upward" Complementizer Agreement, and the Mechanics of Case. *Syntax* 19:1-42.

Citko, Barbara. 2005. On the Nature of Merge: External Merge, Internal Merge, and Parallel Merge. *Linguistic Inquiry* 36:475-497.

Citko, Barbara. 2011. Multidominance. In *The Oxford Handbook of Linguistic Minimalism*, ed. Cedric Boeckx, 119-142: Oxford University Press.

Doron, Edit and Reintges, Chris H. 2005. On the Syntax of Participial Modifiers, unpublished manuscript.

Kratzer, Angelika. 2009. Making a Pronoun: Fake Indexicals as Windows into the Properties of Pronouns. *Linguistic Inquiry* 40 (2):187-237.

Pesetsky, David and Torrego, Esther. 2007. The syntax of valuation and interpretability of features. In *Phrasal and Clausal Architecture: syntactic derivation and interpretation*, eds. Simin Karimi, Vida Samiian and Wendy K. Wilkins, 262-294: John Benjamins.

Zeijlstra, Hedde. 2012. There is only one way to agree. *The Linguistic Review* 29.

Syntactic structure of participial relative clauses

Anna Volkova

(National Research University Higher School of Economics)

It is generally assumed that the syntactic structure of participial relative clauses (pRCs) is impoverished in comparison to that of regular RCs (Burzio 1981, Hazout 2001, Siloni 1995, Stowell

1981, a. o.). PRCs are often analyzed as VP-like structures. The pRCs typically (i) don't license usual CP-material (*wh*-phrases, complementizers); (ii) don't have an independent temporal reference; (iii) don't have subjects. In this talk I will argue against generalizations (ii) and (iii) on the basis of data from Meadow Mari (Uralic).

I will focus on two Meadow Mari participial forms: a participle derived with *–me* and a negative participle *-dəme*. Both these participles can have subjects. The subject of the *–me* and *-dəme* pRCs can be marked with Genitive (available for all argument types) or with Nominative (only the lower part of the animacy hierarchy (1)). In case of +human nouns, both Genitive and Nominative marking is possible (2).

(1) 1&2 person > other pronoun > proper name > human > non-human > inanimate

(2) Jəvan [buxgalter(-ən) {pu-əmo /   pu-ədə-mo}]   pašadar nergen šon-a.
     Ivan   bookkeeper(-gen) give-nzr /   give-neg.conv-nzr   wages   about think-prs.3sg
     Ivan is thinking about the wages that the bookkeeper {gave / did not give} to him.

The time adverb *teŋgeč'e* 'yesterday' can both precede and follow the Genitive subject in a pRC (3), while it can only precede, but not follow the Nominative subject (4).

(3) Jəvan [(teŋgeč'e)   buxgalter-ən   (teŋgeč'e)   pu-əmo] pašadar-ž-əm šotl-a.
     Ivan   (yesterday)   bookkeeper-gen (yesterday)   give-nzr wages-p.3sg-acc count-3sg
     Ivan is counting the wages that the bookkeeper gave (to him) yesterday.

(4) Jəvan [(teŋgeč'e)   buxgalter   (??teŋgeč'e)   pu-əmo] pašadar-ž-əm šotl-a.
     Ivan   (yesterday)   bookkeeper   (yesterday)   give-nzr wages-p.3sg-acc count-3sg
     Ivan is counting the wages that the bookkeeper gave (to him) yesterday.

From that I conclude that Genitive subject is assigned Case within the embedded clause and that Nominative is assigned lower in the structure than Genitive. I propose that Meadow Mari pRCs have a more complex syntactic structure than is generally assumed which involves a T-layer. One argument in favour of this is that the participle form *-dəme* is historically derived from a negative converb *-de* and the participle form *-me* and serves as sentential negation form for *-še* and *-me* participles (see Zanuttini 1996 who argues that sentential negation is a head that selects the tense phrase as its complement).

I use reflexivization as a test for subject properties. As (5) shows, only genitive-marked subjects can bind the reflexive *škenže*, while the nominative cannot.

(5) Jəvan$_i$ [buxgalter*(-ən)$_j$ ška-lan-že$_{j/*i}$ pu-əmo] pašadar-ž-əm   šotl-a.
     Ivan   bookkeeper-genself-dat-p.3sg give-nzr   wages-p.3sg-acc count-prs.3sg
     Ivan is counting the wages that the bookkeeper gave to himself.

To conclude, as Meadow Mari pRCs can have subjects and allow sentential negation, it follows that they have a T-layer. Based on the evidence from time adverb placement and binding I conclude that non-finite T in Meadow Mari assigns structural Genitive case (see Vainikka 2016). By taking into account differences in functional structure as realized in Meadow Mari we arrive at a more finely grained typology of pRCs.

References:

Brykina, M & Aralova, N. 2012. Sistemy prichastij v marijskom i permskix jazykax. In Kuznetsova, A. I. (ed.) Finno-ugorskie jazyki. Fragmenty grammaticheskogo opisanija.

Burzio, L. 1981 Intransitive Verbs and Italian Auxiliaries. PhD Diss, MIT.

Hazout, I. 2001 Predicate Formation: The Case of Participial Relatives. *TLR 18*.

Kayne, R. 1994 *The Antisymmetry of Syntax*.

Kornfilt, J. 2003. Subject Case in Turkish Nominalized Clauses. In *Syntactic Structures and Morphological Information*.

Siloni, T. 1995 On Participial Relatives and Complementizer D[0]. *NLLT 13*.

Stowell, T. 1981 Origins of Phrase Structure. PhD Diss, MIT.

Vainikka, A. 2016. Five structural cases in Finnish. Ms.

Volkova, A. In press. Reflexivity in Meadow Mari: Binding and Agree.

Zanuttini, R. 1996 On the Relevance of Tense for Sentential Negation. In Belletti, A. and L. Rizzi (eds.) *Parameters and Functional Heads*.

The syntax of embedded gerunds in Romance. A contrastive analysis of progressive and predicative gerunds

Jan Casalicchio & Laura Migliori

(University of Trento & Leiden University)

This paper focusses on the syntax of gerunds in Romance. The core aim is to analyse their internal make-up ad the properties that distinguish different uses of these forms in various constructions. In particular, this study will be concerned with the occurence of gerunds in progressive periphrases, which are attested in most Romance varieties. This construction is formed by an auxiliary verb (Aux) + gerund. Aux can be *be, stay, come* and *go*, see (1-4):

(1)   So   *chircande* sos   chi   an   furatu   sa mácchina mea   [Sardinian]
           BE-1.sg look-GER. those that   have-3.pl stolen-PP the car mine
           'I'm looking for those that stole my car' (Jones 2003: 315)

(2)   Pablo está   *durmiendo*   [Spanish]
           Pablo stay-3.sg sleep-GER.
           'Pablo is sleeping'

(3)   Leopardi venne   *maturando* quest'idea nel corso   della giovinezza [Italian]
           Leopardi come-past-3.sg ripen-GER. this idea   in-the course of-the youth
           'Leopardi developed this ides during his youth'

(4)   ke va *truvannə*?   [Neapolitan]
           what go-pres.3.sg look for-GER.
           'What is he/she looking for?'
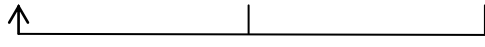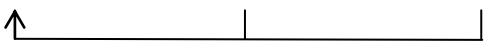
In the literature, these structures have been claimed tob e related to predicative constructions with a gerund, exemplified in (5) (cf. Egerland 2010, a.o.), because of a number of apparent similarities. The comparison is justified, for instance, by the possibility of inserting a progressive form within the perception construction (cf. Raposo 1989):

(5)   Veo   a María   *riendo*   [Spanish]
           see-1.sg to Mary   laugh-ger.
           'I see Mary laughing'

(6) La   veo   *comiendo*   =   La   veo   *estando comiendo* [Spanish]
     her-cl. see-1.sg eat-ger.   her-cl. see-1.sg stay-ger.eat-ger.
     'I see her eating'

   Predicative and progressive gerunds also share other properties, namely: (i) their tense is anaphoric/dependent, (ii) they have a progressive value, (iii) they cannot occur with stative verbs, (iv) they form a constituent without the matrix/inflected verb (cf. Squartini 1998, Casalicchio 2013, a.o.). This study will show that, despite these similarities, progressive and predicative periphrases with gerund do not have the same syntactic structure. More specifically, they show relevant syntactic differences concerning (i) negation, (ii) negation scope, (iii) extraction, (iv) subject position. Synchronic and diachronic arguments will be provided in order to support this claim.
   Predicative constructuions with gerund will be considered to be Small Clauses involving a PP (cf. Casalicchio 2013, 2016):

(7)   a. Vi [PP/SC a María$_i$ [P' sonreír+P [... [AspP sonreír [vP PRO$_i$ sonreír]]]]]

b. Vi a María$_i$ [PP/SC PRO$_i$ [P' sonreír+P [... [AspP sonreír [vP PRO$_i$ sonreír]]]]]

Conversely, it will be proposed that gerundial progressive constructions are exhaustige control structures (cf. Cinque 2006, Grano 2015):

(8)   [FP John try [*v*P John to open the door]]   (Grano 2015: 5)

This means that the Aux in gerundial progressives like (9) is fully functional, as the matrix verb in (8):

(9)   [FP Maria sta [*v*P Maria lavando i panni]]

This hypothesis seems to be confirmed by a number of properties, among which clitic climbing, a typical characteristics of restructuring clauses (cf. Rizzi 1978, a.o.):

(10)   [FP Maria li sta [*v*P Maria lavando li]]
        Maria them stay-3.sg wash-GER

How similar are converbs and participles cross-linguistically?

Daniel Ross & Ksenia Shagal
(University of Helsinki &University of Illinois at Urbana-Champaign)

Converbs are frequently grouped together with (adnominal) participles and other non-finite verb forms because of properties they have in common and are even sometimes labelled (adverbial) participles themselves. In this broad typological study, we analyze the geographical distributions and typological properties of participles and converbs to investigate their relationship. They are both morphosyntactically deranked verb forms but strictly defined have distinct syntactic functions.

Participles are used for adnominal modification, while converbs are used in adverbial modification and clause-chaining (Nedyalkov & Nedyalkov 1987; Haspelmath 1995), essentially deverbal adjectives and deverbal adverbs respectively, in contrast to infinitives and gerunds (or action nominals), which appear in argument positions like nominals (Koptjevskaja-Tamm 1993; Ylikoski 2003).

Converbs and participles do share some properties: reduced agreement and TAM-marking, suffixal morphology, and being found in many of the same areas and languages. Additionally, overlap in usage is attested in some European languages, and different types of non-finite forms are not always easy to distinguish, aggravated by inconsistent terminology. We present a 135-language sample based on primary sources to establish the distributions of converbs and participles worldwide and to what extent they are functionally related. The geographic distributions of converbs and participles are strikingly similar; the distribution of these two forms is statistically correlated ($p<0.0001$, chi-square test):

	Participles	*No participles*
Converbs	**37**	13
No converbs	21	**64**

Table 1: Converbs and participles in 135 languages

We might therefore expect a relationship between the presence of converbs and participles, or even shared morphology. Indeed, languages with extensive verbal morphology are likely to have both converbs and participles, but this may be the extent of the relationship. Compared to Dryer's (2005) data for prefixing and suffixing morphology, we also find a correlation: converbs and participles are only frequent with suffixation, and rare in languages with extensive prefixation or limited morphology.

	Little/no Morphology	*Mostly prefixing*	*Prefixing preference*	*Prefixing & Suffixing*	*Suffixing preference*	*Mostly suffixing*
Languages	16	9	13	25	**13**	**51**
Converbs	1(6%)	0(0%)	3(23%)	6(24%)	**7(54%)**	**30(59%)**
Participles	1(6%)	1(11%)	5(38%)	10(40%)	**7(54%)**	**31(61%)**

Table 2: Effects of prefixing/suffixing morphology on converbs and participles

Non-finite forms often fulfill multiple syntactic functions. However, among the 37 languages in our sample with both converbs and participles, only 11 have overlapping or related forms, and that overlap is rarely substantial, as in Krongo (Kadugli, Sudan; Reh 1985), with the marker *n-* for both non-finite relative clauses and non-finite adverbial clauses.

In no more than 5% of languages could there be any difficulty in distinguishing converbs from participles, and the term *adverbial participle* is misleading. Although there are some instances of shared forms for these two non-finite functions, the pure combination of adnominal modification (participle) and adverbial modification (converb) is very rare (cf. van Lier 2009). The difficulty instead lies in the frequent multi-functionality of these forms as gerunds or infinitives, and the bridge connecting converbs and participles may be nominalization.
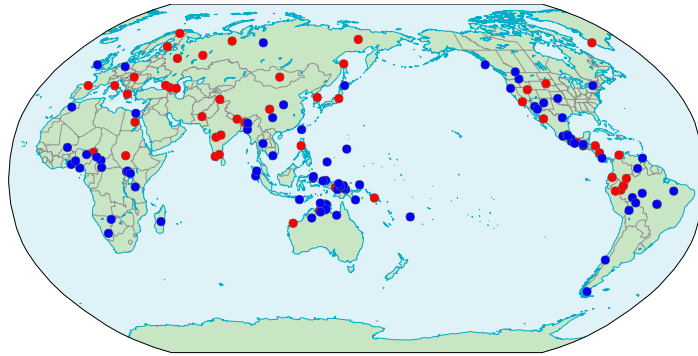
Map 1: Converbs in 135 languages
50(37%) with converbs; **85**(63%) without.
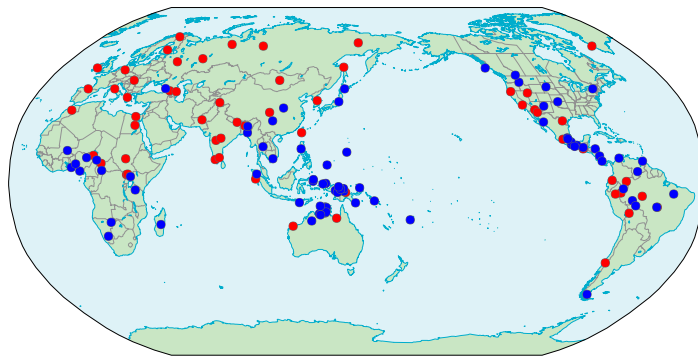
Map 2: Participles in 135 languages
58(43%) with participles; **77**(57%) without.

References

Dryer, Matthew S. (2005). Prefixing vs. Suffixing in Inflectional Morphology. In Haspelmath, Dryer, Gil, & Comrie (eds.), *World atlas of language structures*, 110–113. Oxford: Oxford University Press.

Haspelmath, Martin. 1995. The converb as a cross-linguistically valid category. In: Haspelmath, Martin & König, Ekkehard (eds.). *Converbs in cross-linguistic perspective*, 1–55. Berlin: Mouton de Gruyter.

Koptjevskaja-Tamm, Maria. 1993. *Nominalizations*. London: Routledge.

Nedyalkov, Vladimir P., & Nedyalkov, Igor V. 1987. On the typological characteristics of converbs. In Help & Murumets (eds.), *Symposium on Language Universals*, 75–79. Tallinn: Academy of Sciences.

Reh, Mechthild. 1985. *Die Krongo-Sprache (Nìinò-mó-dì)*. Berlin: Dietrich Reimer Verlag.

van Lier, Eva. 2009. *Parts of speech and dependent clauses: A typological study*. Utrecht: LOT.

Ylikoski, Jussi. 2003. Defining non-finites: action nominals, converbs, and infinitives. *SKY Journal of Linguistics* 16, 185–237.

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WORKSHOP 20

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Rethinking Evidentiality

Martine Bruil, Bert Cornillie, & Manuel Widmer
(CNRS, Paris; KU Leuven; & Zürich)

Ever since evidentiality became a topic of interest in mainstream linguistics in the early nineteen eighties, a vast number of cross-linguistic and language-specific studies have considerably enhanced our understanding of the phenomenon. They have given rise to the widely accepted standard definition of evidentiality as the grammatical category that specifies the information source on which a statement is based (Aikhenvald 2004). At the same time, lexical evidentiality has gained terrain in studies concerned with European languages (cf. Squartini 2007 and the contributions therein). Both lines of research have led to new questions about the relation of the evidential category with other related ones.

One of the most fundamental issues that remains unresolved is the question of how we can diagnose and identify an evidential as such. Anderson's (1986) four influential criteria show up in many definitions. Yet, in both typological and descriptive studies, morphemes and words are sometimes referred to as "evidentials" without reflecting on whether this is the most adequate functional characterization. In many accounts, evidential readings are intertwined with other semantic and pragmatic dimensions.

In the former decade, a lot of attention was paid to the difference between evidentiality and epistemic modality (see De Haan 1999, Nuyts 2001, Cornillie 2007, 2009) and the question whether specific expressions belonged to one of the categories. This issue has recently been broadened so as to consider evidentiality and epistemic modality as subcategories of the conceptual domain of 'epistemicity' (rather in its etymologically primary sense of epistemologically relevant notions); under this heading epistemic (properly modal) meanings refer to 'epistemic support', while evidential meanings cover the region of 'epistemic justification' (Boye 2012). More recently, further steps have been taken so as to question the analysis of certain bona fide "evidential" subcategories as true evidentials. For example, Bruil (2014, 2015) has argued that reportative markers do not primarily mark information source, but rather signal a shift in epistemic authority. In the same vein, Widmer (2016, forthcoming) has argued that egophoricity (a.k.a. "participatory evidence"), does not specify one's source of information but the quality of one's knowledge as "exclusive / personal" or "non-exclusive / impersonal". Moreover, evidentiality has been interpreted as a category that is also involved in stance-taking and mitigation, as well as assessments of speaker and hearer commitment, with special attention to the knowledge differential between speech participants (cf. Nuckolls & Michael 2012). All this has important implications for the typological classification of evidentiality (see Plungian 2010; San Roque & Loughnane 2012; Hengeveld & Dall'Aglio Hattnher 2015 for some recent proposals).

The issue of diagnosing evidential semantics and pragmatics is directly linked to the question of which methodology should best be used to study and evidential categories (cf. Cornillie, Marín-Arrese and Wiemer 2015). Within functional linguistics scholars have argued for the use of natural discourse including conversations (Aikhenvald 2004, Nuckolls & Michael 2012) and the use of techniques from discourse analysis (Gipper 2011). Within formal semantics and pragmatics, scholars have argued for elaborate elicitation methods that help to determine the felicity of the use of evidentials in specific

contexts (see Faller 2002; Matthewson et al. 2007; Waldie et al. 2009; Peterson 2010; Murray 2010; Déchaine 2012, Korta & Zubeldia 2012).

In this workshop, we would like to bring together scholars working on evidentiality from empirical, methodological, and/or theoretical perspectives. In particular, we would like to bring together scholars working in the typological-linguistic tradition focussing on languages with grammatical evidentiality and scholars working on European languages which lack grammatical evidentials stricto sensu. Our common aim is to discuss the question of how evidentials can be identified and classified and how these different approaches can feed each other in our understanding of evidentiality. We are especially interested in the following questions (but potential contributors should not feel restricted by them):

(1) What diagnostics / tests can we use to identify and study evidentials in the languages of the world?
(2) Which cross-linguistic criteria can we define for evidentiality so as to bridge the gap between accounts that are concerned with grammatical evidentiality and studies focussing on the use of lexical evidentials in discourse?
(3) Is it possible to describe evidential distinctions by reference to other semantic concepts, e.g. "event situation" vs. "learning time" (Klose 2014)?
(4) Are there other notions that are necessary to adequately describe complex evidentiality systems, e.g. "epistemic authority" (Bruil 2014, 2015), "perspective" (Bergqvist in press), "knowledge differential" (Heritage & Raymond 2005; Sidnell 2012)?
(5) Are there morphosyntactic and /or semantic criteria that allow us to group evidentials into cross-linguistically coherent subsystems, e.g. "representational" vs. "interpersonal" (Hengeveld & Dall'Aglio Hattnher 2015)?
(6) Is it justified to think of evidentiality as a network of independent epistemological categories that all gravitate towards the notion of "information source"? Can other notions, such as "mode of access"(Izquierdo 2016, Zemp 2016) be an alternative?
(7) Can evidentiality in written discourse be compared with evidentiality in spoken discourse? Should typologies take into account differences inherent to communicative settings?

References

Anderson, Lloyd B. 1986. Evidentials, Paths of Change, and Mental Maps: Typologically Regular symmetries. In *Evidentiality: The Linguistic Coding of Epistemology*, ed. by Wallace Chafe and Johanna Nichols, 273-312. Norwood, NJ: Ablex Publishers.

Aikhenvald, Alexandra. 2004. *Evidentiality*. Oxford: Oxford University Press.

Bergqvist, Henrik. In press. The role of 'perspective' in epistemic marking. *Lingua*.

Boye, Kasper. 2012. *Epistemic meaning. A crosslinguistic and functional-cognitive study*. Berlin - New York: Mouton de Gruyter.

Bruil, Martine. 2014. *Clause-typing and evidentiality in Ecuadorian Siona*. Leiden: Leiden University dissertation.

Bruil, Martine. 2015. When evidentials are not evidentials: The case of the Ecuadorian Siona reportative. *Linguistic Typology* 19(3), 385–423.

Cornillie, Bert. 2007. *Epistemic Modality and Evidentiality in Spanish (semi-) auxiliaries. A cognitive-functional Approach*. Berlin - New York: Mouton de Gruyter.

Cornillie, Bert. 2009. Evidentiality and epistemic modality: On the close relationship between two different categories. *Functions of Language* 16 (1): 44-62.

Cornillie, Bert, Juana Marín-Arrese and Björn Wiemer. 2015. Evidentiality and the semantics – pragmatics interface. An introduction. *Belgian Journal of Linguistics* 29: 1-17.

Déchaine, Rose-Marie. 2012. (De-)constructing evidentiality: what morphology, syntax & semantics reveal. Paper presented at the conference *The Nature of Evidentiality*, Leiden, 14–16 June.

De Haan, Ferdinand. 1999. Evidentiality and Epistemic Modality: Setting Boundaries. *Southwest Journal of Linguistics* 18: 83-101.

Faller, Martina T. 2002. *Semantics and Pragmatics of Evidentials in Cuzco Quechua*. Stanford: Stanford University dissertation.

Gipper, Sonja. 2011. *Evidentiality and intersubjectivity in Yurakaré: An interactional account*. Nijmegen: Radboud Universiteit Nijmegen dissertation.

Hengeveld, Kees & Marize Mattos Dall'Aglio Hattnher. 2015. Four types of evidentiality in the native languages of Brazil. *Linguistics* 53(3), 479–524.

Heritage, John & Raymond, G. 2005. The terms of agreement: Indexing epistemic authority and subordination in assessment sequences. *Social Psychology Quarterly* 68: 15-38.

Klose, Claudius. 2014. A temporal evidential in Aymara. *Proceedings of ConSOLE XXII*, 114–131.

Korta, Kepa and Larraitz Zubeldia. 2014. "The contribution of evidentials to utterance content: Evidence from the Basque reportative particle *omen*." *Language* 90 (2): 389-423.

Matthewson, Lisa, Henri Davis & Hotze Rullmann. 2007. Evidentials as Epistemic Modals: Evidence from St'at'imcets. *Linguistic Variation Yearbook* 7, 201-254.

Murray, Sarah E. 2010. *Evidentiality and the Structure of Speech Acts*. New Brunswick: Rutgers University dissertation.

Nuckolls, Janis and Lev Michael. (eds) 2012. *Evidentiality in interaction*. Special issue of *Pragmatics and Society* 3 (2).

Nuyts, Jan. 2001. *Epistemic Modality. Language, and Conceptualization: A Cognitive-Pragmatic Perspective*. Amsterdam - Philadelphia: John Benjamins.

Peterson, Tyler R.G. 2010. Epistemic Modality and Evidentiality in Gitksan at the Semantics-Pragmatics Interface. Vancouver: University of British Colombia dissertation.

Plungian, Vladimir. 2010. Types of verbal evidentiality marking: An overview. In Gabriele Diewald & Elena Smirnova (eds.), *Linguistic realization of evidentiality in European languages*, 15–58. Berlin: De Gruyter Mouton.

San Roque, Lila & Robyn Loughnane. 2012. The New Guinea Highlands evidentiality area. *Linguistic Typology* 16, 111–167.

Sidnell, J. 2012. "Who knows best?": Evidentiality and epistemic asymmetry in conversation. *Pragmatics and Society* 3(2): 294-320.

Squartini, Mario. 2007. Investigating a grammatical category and its lexical correlates. In *Evidentiality between lexicon and grammar*, ed. by Mario Squartini, 1-6. *Rivista di Linguistica* 19 (1).

Waldie, Ryan, J. Tyler, R.G. Peterson, Hotze Rullmann & Scott Mackie. 2009. Evidentials as Epistemic Modals or Speech Act Operators: Testing the Tests. Paper presented at the *The Workshop on Structure and Constituency in the Languages of the Americas* 13, Purdue University.

Widmer, Manuel. 2016. Same same but different. The relationship between egophoricity and evidentiality. Paper presented at the *Symposium on evidentiality, egophoricity, and engagement: descriptive and typological perspectives*, Stockholm, 17–18 March.

Widmer, Manuel. Forthcoming. *A grammar of Bunan* (Mouton Grammar Library). Berlin: de Gruyter Mouton.

Evidentiality and the perfect in the Rikwani and Zilo dialects of Andi (East Caucasian)

Samira Verhees

(National Research University Higher School of Economics, Moscow)

The Andi language, as a member of the Nakh-Daghestanian or East Caucasian language family, is spoken in a linguistic area known for perfect-like forms of the verb that can express indirect evidential meanings (i.e. inference and hearsay) (see for example Aikhenvald (2004, 290), Johanson & Utas (2000) and (Plungian 2016)). As described for other East Caucasian languages, these forms are typically polysemic, and can combine resultative, indirect evidential, mirative and epistemic modal meanings (see, among others, Forker (2016), Maisak & Tatevosov (2001; 2007), Tatevosov (2001) and Friedman (2007). Some of these meanings seem lexically determined, whereas others may be subject to complex pragmatic conditions.

Andi is a minor unwritten language spoken in nine different villages in northwest Daghestan (Russian Federation). Each of these villages is considered to have its own distinct dialect. At present only the dialects of Gagatl (Salimov 1968), Rikwani (Sulejmanov 1957) and, to some extent, Andi (in Dirr (1906) and an article by Kibrik (1985)) are described. Although Sulejmanov does not describe grammatical semantics in great detail, he does mention that in terms of verb tense, the dialects are rather divergent (1957, 380). Both Salimov and Sulejmanov describe a 'past witnessed' versus a 'past unwitnessed' for Gagatl and Rikwani. The specialized article by Kibrik (1985) showed that the alleged 'past unwitnessed' in the Andi dialect can also be used as a resultative construction, in which case the evidential distinction is neutralized.

Past tense forms of the verb that express both resultative and evidential meanings are commonly referred to as 'perfects' in more recent studies, because as a rule they are opposed to a more neutral perfective past tense (usually called 'aorist') that is also formally less marked. In this paper I will use the term 'perfect' as well, because 'past unwitnessed' does not account for the polysemy that is characteristic of these particular forms. In addition, polysemy seems a cross-linguistic trademark of the perfect in general (see Ritz (2012) and Plungian (2016)). It should be noted, however, that there is very little evidence for so called 'current relevance' meanings in East Caucasian, even though these are considered prototypical for the perfect by some (for example, Lindstedt (2000)).

The current paper describes and compares the different possible meanings of the perfect in the Rikwani and Zilo dialects of Andi and how these forms are interpreted by speakers. Whereas some meanings are determined by the lexical semantics of the verb, others are licensed by a specific pragmatic context. For the purposes of this study I used a typological questionnaire and analyzed narratives recorded during fieldwork expeditions. I will argue that it is necessary to study both natural occurrences as well as choices made by speakers in a controlled context in order to properly understand the mechanisms at work.

References

Aikhenvald, A. Y. 2004. *Evidentiality.* New York: Oxford University Press.

Dirr, A.M. 1906. 'Kratkij grammatičeskij očerk andijskago jazyka' ['A short sketch of the grammar of the Andi language']. In: *Sbornik materialov dlja opisanija mestnostej I plemën kavkaza*, 36 [Collection of materials for the description of places and tribes in the Caucasus, 36]. Tiflis: Izdatel'stvo upravlenija kavkazskogo učebnogo okruga.

Friedman, V.A. 2007. 'The expression of speaker subjectivity in Lak (Daghestan)'. In Guentchéva, Z. & J. Landabaru. (eds.) 2007. *L'énonciation médiatisée II. Le traitement épistémologique*

de l'information: illustrations amérindiennes et caucasiennes. Louvain/Paris: Peeters, 351-376.

Maisak, T.A. & S.G. Tatevosov. 2001. 'Evidencial'nost'' ['Evidentiality']. In: Kibrik, A.E. (ed.). *Bagvalinskij Jazyk* [The Bagvalal language]. Moscow: IMLI RAN Nasledije, 293-317.

Maisak, T.A. & S.G. Tatevosov. 2007. 'Beyond evidentiality and mirativity: Evidence from Tsakhur'. In: Guentchéva, Z. & J. Landabaru. (eds.). *L'énonciation médiatisée II. Le traitement épistémologique de l'information: illustrations amérindiennes et caucasiennes*. Louvain/Paris: Peeters, 377-406.

Forker, D. 2016. 'Evidentiality in Nakh-Daghestanian languages'. In: *The Oxford Handbook of Evidentiality.* Oxford: Oxford University Press. Via: academia.edu.

Johanson, L. & Utas, B. 2000. *Evidentials: Turkic, Iranian and neighboring languages*. Berlin/New York: Mouton de Gruyter.

Kibrik, A.A. 1985. 'Absentiv-Aorist und Resultativ in der andischen Sprache'. In: *Sprachen Europas und Asiens*. Jena: Friedrich Schiller Universität, 55-66.

Lindstedt, J. 2000. 'The perfect − aspectual, temporal and evidential' In: Dahl, Ö. 2000. *Tense and aspect in the languages of Europe*. Berlin/New York: Mouton de Gruyter.

Plungian, V.A. 2016. 'K tipologii perfekta v jazykax mira: predislovije' ['Towards a typology of the perfect in the world's languages: introduction']. In: Maisak, T.A., Plungian, V.A., Semёnova, Ks.P. (eds.) 2016. *Tipologija perfekta* [Typology of the perfect]. St. Petersburg: Nauka, 7-38.

Ritz, M.E. 2012. 'Perfect tense and aspect'. In: Binnick, R.I. *The Oxford Handbook of Tense and Aspect.* Oxford: Oxford University Press, 881-907.

Salimov, Kh. S. 1968. (2010). *Gagatlinskij govor andijskogo jazyka* [The Gagatl dialect of the Andic language]. Makhachkala: IJALI.

Sulejmanov, Ja. G. 1957. *Grammaticheskij ocherk andijskogo jazyka (po dannym govora s. Rikwani)* [Sketch of the grammar of Andi (based on the sub-dialect of the village Rikwani)]. Makhachkala: Dissertation.

Tatevosov, S. 2001. 'From resultatives to evidentials: Multiple uses of the Perfect in Nakh-Daghestanian languages'. In: *Journal of Pragmatics* 33 (2001), 443-464.

Managing knowledge and epistemic stance in oral narratives: Evidence from languages with evidential and egophoric systems

Lotta Jalava, Erika Sandman, & Karina Lukin
(University of Helsinki)

In this paper we will study how performers of oral narratives use evidential and egophoric marking for managing knowledge in their narration. The objective of our study is to contrast languages with different evidential and egophoric systems: Nenets (Uralic) with a complex system of evidentials, contrasted to Mangghuer (Mongolic) and Wutun (Sinitic), with egophoric categories. In the existing literature, evidentiality has usually been defined as a grammatical category expressing the source of information (Aikhenvald 2004: 2), while the standard definition for egophoricity is the linguistic encoding of personal knowledge, involvement or privileged access to the event or situation (Hargreaves 2005; Floyd et al. 2017). Our study takes a more interpersonal approach to these phenomena and investigates how they express different perspectives in oral narration.

By the management of knowledge we refer not only to the narrator's and their audience's access to knowledge, but also the representation of different perspectives and epistemic stance (Bergqvist 2015, Heritage 2012, Englebretson 2007) and the strategies through which knowledge or lack of it is narrated. In addition to the narrator and their audience, different perspectives involved in the narration may represent, for instance, the experiences of the main character(s) that the narrator is emphasizing, inherited knowledge that the narrator is retelling as background information, and, perspective of the omniscient narrator.

Our main research question is how the investigated languages exploit their linguistic resources to distinguish and shift different perspectives in narratives. The aim is to discuss how grammatical markers such as evidentials, epistemic and egophoric markers as well as strategies of marking reported speech in languages with different linguistic systems are used for managing knowledge in oral narratives. In more theoretical level, we aim at understanding better the functional similarities of evidentiality and egophoricity in relation to managing knowledge. Our data consist of oral narratives representing epic poetry, traditional stories, and narratives based on stimuli. The data are drawn from fieldwork recordings and collections of different types of oral narratives from different periods of time (Castrén 1940, Jalava 2015, Sandman 2016, Slater 2003).

Our preliminary results indicate that in oral narratives markers of evidentiality and egophoricity are used not only to mark information source or personal experience/participation of the speaker, but also to manage epistemic stance and alignment to the hearer perspective based on knowledge asymmetries between participants in the narrative event. For example, in Nenets oral poetry, while the indicative mood usually marks the experiences of the main character, the evidentials and reportative strategies are used to contextualize events, shift perspective of the narrator and ownership of the information. This is, in many respects, similar to how egophoric markers are used in Wutun and Mangghuer. Moreover, while in some languages evidentials are conceptualized as markers of a narrative genre (Aikhenvald 2004: 310), our analysis suggests that the use of evidential and egophoric strategies are connected rather, for instance, to shifting perspectives than marking the whole genre.

References

Aikhenvald, Alexandra Y. 2004. *Evidentiality*. Oxford: Oxford University Press.

Bergqvist, Henrik. In Press. The role of 'perspective' in epistemic marking. *Lingua*.

Castrén, Matthias Alexander 1940. *Samojedische Volksdichtung. Gesammelt von M. A. Castrén. hrsg. von T. Lehtisalo*. MSFOu 83. Helsinki: Finno-Ugrian Society.

Englebretson, Robert 2007. Stancetaking in discourse: An introduction. In Robert Englebretson (ed.) *Stancetaking in Discourse. Subjectivity, Evaluation, Interaction*. Pragmatics & Beyond New Series 164. Amsterdam /Philadelphia: John Benjamin's, 1-25.

Floyd, Simeon, Elisabeth Norcliffe and Lila San Roque. In press. Introduction. In Floyd, Simeon, Elisabeth Norcliffe and Lila San Roque (eds.) *Egophoricity*. Amsterdam: John Benjamin's.

Hargreaves, David 2005. Agency and intentional action in Kathmandu Newar. *Himalayan Linguistics* 5, 1-48.

Heritage, John 2012. Epistemics in action: Action formation and territories of knowledge. *Research on Language & Social Interaction* 45 (1), 1-29

Jalava, Lotta 2015. *Borders of (in)finiteness: Tundra Nenets predication in change*. PhD dissertation, University of Helsinki.

Sandman, Erika 2016. *A Grammar of Wutun*. PhD dissertation, University of Helsinki.

Slater, Keith W. 2003. *A Grammar of Mangghuer*. London and New York: RoutledgeCurzon.

Redefining evidentials as indicating 'access to' rather than 'source of information'

Marius Zemp

(University of Bern)

Aikhenvald (2004: 3) defines evidentiality as "a linguistic category whose primary meaning is source of information". Dealing with Tibetan, Tournadre and LaPolla (2014) define evidential marking somewhat more broadly as "representation of source and access to information according to the speaker's perspective and strategy" (2014: 240). I suggest to dispose of the notion of 'information source' altogether and to define evidentials as indicating **the informant's access to the profiled event**. The 'informant' (see Bickel 2008) is the person from which information about the profiled event ultimately emanates, and is instantiated by the speaker in a simple statement, the addressee in a simple question, and the original speaker or source in a simple reported speech clause. It is crucial to note that evidentials are thus always **grounded at the scene of the profiled event**. In that, they contrast with person agreement markers, which are grounded in the situation of the current speech act, indicating which of the interlocutors participates in the profiled event.

Willet (1988: 91) in his cross-linguistic survey of evidentiality chooses to ignore a pair of suffixes that are "used when the speaker was the agent of the action reported" because "the source of evidence does not seem to be their primary meaning." While such **participatory evidentials** (see Plungian 2010, San Roque & Loughnane 2012, and Zemp forthcoming) might not indicate the *source* of evidence, however, they correspond to what Willet (1988: 55) identifies as the common thread in all previously expressed views on evidentiality, to wit, that evidentiality is "the linguistic means of indicating how the speaker **obtained** the information on which s/he bases an assertion." The shifted definition of evidentials as indicating one's access to rather than source of information better captures markers indicating participatory evidence (including 'conjunct/disjunct' markers, see Hale 1980, Hargreaves 2005, and Widmer and Zemp forthcoming), and it corresponds to what scholars up to Willet viewed as evidentiality.

Aikhenvald notices that it is more common for evidentials in questions to reflect the information source of the addressee than the one of the speaker (Aikhenvald 2004: 244). In order to illustrate the latter, exceptional pattern, she adduces a "non-firsthand", a "non-visual", an "inferred", and a "reported" marker. I suggest to define these markers as "**indirect evidentials**", since they all indicate indirect access to the scene of the profiled event. As a consequence, they do not have to be construed from the perspective of the informant and may instead reflect the perspective of the speaker in a simple question.

The ideas proposed here mainly draw from my work on Purik Tibetan (see Zemp forthcoming) and West Himalayish Bunan (see Widmer and Zemp forthcoming). Even though the phenomenon has a completely different origin in the two languages, evidentials in both languages consistently indicate the informant's access to the conveyed information. I will demonstrate that this narrow definition of evidentiality is a useful and solid tool in analyzing evidential systems in the world's languages.

References

Aikhenvald, Alexandra. 2004. Evidentiality. Oxford: Oxford University Press.

Bickel, Balthasar. 2008. Verb agreement and epistemic marking: A typological journey from the Himalayas to the Caucasus. In Brigitte Huber, Marianne Volkart & Paul Widmer (eds.), *Chomolangma, Demawend und Kasbek*, Festschrift für Roland Bielmeier, 281–308. Saale: International Institute for Tibetan and Buddhist Studies.

Hale, Austin. 1980. Person markers: Finite conjunct and disjunct verb forms in Newari. In Stephen A. Wurm (ed.), *Papers in South East Asian Linguistics* 7 (Pacific Linguistics A 53), 95–106. Canberra: Australian National University.

Hargreaves, David J. 2005. Agency and intentional action in Kathmandu Newari. *Himalayan Linguistics Journal* 5: 1–48.

Plungian, Vladimir. 2010. Types of verbal evidentiality marking: an overview. In Gabriele Diewald & Elena Smirnova (ed.), *Linguistic realization of evidentiality in European languages*, 15–58. Berlin & New York: De Gruyter Mouton.

San Roque, Lila & Robyn Loughnane. 2012. The New Guinea Highlands evidentiality area. *Linguistic Typology* 16(1). 111–167.

Tournadre, Nicolas, and Randy LaPolla. 2014. Towards a new approach to evidentiality. *Linguistics of the Tibeto-Burman Area* 37(2): 240–263.

Willett, Thomas. 1988. A cross-linguistic survey of the grammaticizations of evidentiality. *Studies in Language* 12: 51-97.

Widmer, Manuel, and Marius Zemp. Forthcoming. The epistemization of person markers in reported speech. Studies in Language.

Zemp, Marius. Forthcoming. The evolution of resultative-inferential, testimonial, factual, and related evidentials in Purik Tibetan. Henrik Bergqvist & Seppo Kittilä (eds.), Proceedings of the workshop 'Person and Knowledge: From Participant-Role to Epistemic Marking' at the 48th Annual Meeting of the Societas Linguistica Europaea, Leiden, 2.–5. September 2015.

Rethinking the relationship between egophoricity and evidentiality

Manuel Widmer

(University of Zurich)

In the course of the past decade, our understanding of the phenomenon "egophoricity" (a.k.a. "conjunct/disjunct") has been considerably enhanced by a wealth of descriptive and – to a lesser extent – typological studies (see San Roque et al. forthcoming for an overview). However, in spite of this progress, many aspects of egophoricity remain controversial. This is especially true for the grammatical status of the phenomenon. While some scholars have analyzed egophoricity as a subcategory of the well-established grammatical category "evidentiality", whose primary meaning is commonly defined as "source of information" (Aikhenvald 2004), others have treated egophoricity as an independent grammatical category with a different functional motivation. This study aims at assessing the relationship between egophoricity and evidentiality from a functional-typological perspective. Based on data from selected languages, it will reevaluate the evidence for treating egophoricity as an evidential subcategory or as a grammatical category in its own right.

The talk will first discuss the varying structural complexity of egophoricity systems against the backdrop of typological models that treat egophoricity as an evidential subcategory (e.g. Plungian 2010; San Roque & Loughnane 2012). It will be argued that such models fare well with complex epistemic systems of the "Lhasa Tibetan type" (see Tournadre & Dorje 2003), in which an egophoric form stands in a paradigmatic opposition with several evidential forms, but that they fall short of accommodating binary egophoricity systems of the "Kathmandu Newar type" (see Hargreaves 2005), in which an egophoric form contrasts with a single allophoric form. The fact that the relevant models cannot account for binary systems suggests that egophoricity and evidentiality may in fact constitute

two independent functional domains that partially overlap in the case of Lhasa Tibetan-type systems. If this hypothesis were true, however, one would expect to find Lhasa Tibetan-type systems in which this functional independence correlates with structural independence.

In a second step, this hypothesis will be tested against linguistic evidence. It will be demonstrated that there are Lhasa Tibetan-type systems in which egophoricity displays a considerable degree of structural independence. Such systems have been described for the Tibeto-Burman language Bunan, in which egophoricity manifests itself as an independent functional layer (Widmer forthcoming), and for the Barbacoan language Tsafiki, in which egophoricity manifests itself as an independent morphological system (see Dickinson 2000). In addition, it will be shown that egophoricity markers stand outside of de Haan's (1998) and Hengeveld & Dall'Aglio Hattnher's (2015) implicational universals concerning the structural complexity of evidentiality systems. These observations provide evidence for the assumption that egophoricity constitutes a functional domain distinct from evidentiality.

The talk thus offers new perspectives on egophoricity and its relationship to evidentiality. At the same time, the talk demonstrates how a typological-functional approach can help us to gain insight into the grammatical status of egophoricity, evidentiality, and related phenomena.

References

Aikhenvald, Alexandra. 2004. *Evidentiality*. Oxford: Oxford University Press.

De Haan, Ferdinan. 1998. The category of evidentiality. Unpublished manuscript. University of New Mexico.

Dickinson, Connie. 2000. Mirativity in Tsafiki. *Studies in Language* 24(2). 379–421.

Hargreaves, David J. 2005. Agency and intentional action in Kathmandu Newari. *Himalayan Linguistics Journal* 5. 1–48.

Hengeveld, Kees & Marize Mattos Dall'Aglio Hattnher. 2015. Four types of evidentiality in the native languages of Brazil. *Linguistics* 53(3). 479–524.

Plungian, Vladimir. 2010. Types of verbal evidentiality marking: An overview. In Gabriele Diewald & Elena Smirnova (eds.), *Linguistic realization of evidentiality in European languages* (Empirical Approaches to Language Typology 49), 15–58. Berlin: De Gruyter.

San Roque, Lila & Robyn Loughnane. 2012. The New Guinea Highlands evidentiality area. *Linguistic Typology* 16. 111–167.

San Roque, Lila, Simeon Floyd & Elisabeth Norcliffe. Forthcoming. *Egophoricity: an introduction*. In Simeon Floyd, Elisabeth Norcliffe & Lila San Roque (eds.), *Egophoricity*. Amsterdam / Philadelphia: John Benjamins.

Tournadre, Nicholas & Sange Dorje. 2003. *Manual of Standard Tibetan: language and civilization*. Ithaca: Snow Lion Publications.

Widmer, Manuel. Forthcoming. *A grammar of Bunan* (Mouton Grammar Library 71). Berlin: de Gruyter.

Reliability as an intermediate layer between evidential and epistemic meanings

Björn Wiemer

(Johannes Gutenberg-Universität, Mainz)

The talk focuses on the relation between evidential and epistemic meanings. Many recurrent issues in disentangling this relation can be solved if reliability (alias trustworthiness) is admitted as a concept that is independent from information source and epistemic support, but mediates between the two. While the talk acknowledges fundamental contributions by formal semantics, my own proposal (see below) arises from a functional approach that accounts both for linguistic structure and usage (similarly Boye/Harder 2007) and takes seriously the coded-inferred divide in the analysis of meaning (Ariel 2008).

Matthewson (2015) regards trustworthiness as "one of three dimensions of meaning which evidentials encode" (2015: 149), and she sees it at the basis of 'evidence strength'. The latter is, however, a hybrid concept which, since Givón (1982), has much contributed to persistent confusion about the relation between evidential and epistemic meanings (Wiemer 2013: 465).

From a functional viewpoint, reliability has recently been identified as a concept that cannot be equated with components of information source or epistemic judgment, but mediates between these domains (Cornillie et al. 2015). It is not part of any unit's conventionalized meaning, but determines pragmatic defaults (like Generalized Conversational Implicatures, GCIs; Levinson 2000). The direction of its impact (strengthening or weakening of epistemic support) largely depends on the expectability of information source marking in a language and/or in the discourse type. For reportive markers the direction of impact is less predictable, since, in Kratzerian terms, reliability can vary independently from whatever is in the Modal Base; it betrays however a relation to Ordering Source, which contains stable assumptions about causal relations, but can remain empty for reportives (Faller 2011). This explains 'reportive exceptionality' (AnderBois 2014): for reportives epistemic overtones arise (or not) depending on the reliability of the source to which authority has been shifted from the reporting speaker. In turn, for inferentials the degree of reliability is conditioned by general assumptions among speakers that establish tight associations with sensory or endophoric triggers of inferences (Wiemer, forthcoming).

A survey of diverse crosslinguistic findings substantiates these claims. On this backdrop, I present an analysis of Polish sentence adverbs. The analysis combines data from the Polish National Corpus (NKJP) with a critical review of meaning explications of relevant units in the SGPP (2014) and independent usage-based investigations (Socka 2015). This methodological triangulation shows: (i) Agnostic epistemic stance ('I don't know whether *p* or not-*p*') creates a pivot for reliability to favour either support for or doubt in the veracity of *p*. (ii) Linguists describing propositional markers let themselves be guided by GCIs which are probably not universal; this skews their account of how evidential and epistemic meaning contributions interact.

Concomitantly, this analysis shows that problems related to the genesis and identification of evidential meanings are not restricted to grammatical marking, but arise from general phenomena on the semantics-pragmatics interface. Findings based on meaning descriptions of lexical markers of information source can therefore be applied to grammatical evidentials as well and, thus, contribute to a comprehensive theory of evidential marking.

References

AnderBois, Scott 2014: On the exceptional status of reportative evidentials. *Proceedings of SALT* 24, 234-254.

Ariel, Mira 2008: *Pragmatics and Grammar*. Cambridge etc.: Cambridge U.P.

Boye, Kasper & Peter Harder 2007: Complement-taking predicates. *Studies in Language* 31-3, 569-606.

Cornillie, Bert, Juana Marín-Arrese & Björn Wiemer 2015: Evidentiality and the semantics-pragmatics interface (An introduction). *Belgian Journal of Linguistics* 29 (special issue on

Evidentiality and the Semantics—Pragmatics Interface, ed. by Bert Cornillie and Juana I. Marín Arrese), 1-17.

Faller, Martina 2011: A possible world semantics for Cuzco Quechua evidentials. In: Li, Nan & David Lutz (eds.): *Proceedings of SALT 20.* Ithaca: CLC Publications, 660-683.

Givón, Talmy 1982: Evidentiality and Epistemic Space. *Studies in Language* 6-1, 23-49.

Levinson Stephen C. (2000): *Presumptive meanings. The theory of generalized conversational implicature.* Cambridge, M.A.: MIT Press.

Matthewson, Lisa 2015: Evidential restrictions on epistemic modals. In: Alonso-Ovalle, Lius & Paula Menéndez-Benito (eds.): *Epistemic Indefinites (Exploring Modality Beyond the Verbal Domain)*. Oxford etc.: Oxford U.P., 141-160.

NKJP: *Narodowy Korpus Języka Polskiego* – http://nkjp.pl/ SGPP (2014): Grochowski, Maciej, Anna Kisiel & Magdalena Żabowska (2014): *Słownik gniazdowy partykuł polskich* [Nest Dictionary of Polish Particles]. Kraków: PAU.

Socka, Anna 2015: Polish sentence adverbs of hearsay: syntactic and textual distribution. In: Wiemer, Björn (ed.): *Studies on evidentiality marking in West and South Slavic*. München: Sagner, 111-137.

Wiemer, Björn 2013: Review of Boye, Kasper. 2012. *Epistemic Meaning: A crosslinguistic and functional-cognitive study*. Berlin/New York: De Gruyter Mouton [*Empirical Approaches to Language Typology* 43]. xvii + 373 pp. (ISBN 978 3 11 020438 4) *Studies in Language* 37-2, 463-472.

Wiemer, Björn (forthcoming): Evidentials and Epistemic Modality. In: Aikhenvald, Alexandra Y. (ed.): *The Oxford Handbook of Evidentiality*. Oxford etc.: Oxford U.P.

An integrated account of Information Structure and Evidentiality: from political speech to human communication

Viviana Masia

(University of Genoa)

A fairly unexplored issue related to the encoding of evidential meanings is their relation to Information Structure (IS). In his 2001 volume, Nuyts addressed the relevance of IS to the manifestation of the information source or the speaker's commitment to truth. However, to date, a more systematic account of how informational dichotomies such as topic-focus or presupposition-assertion, among others (cf. Stalnaker 1973; Lambrecht 1994), contribute to evidential marking has not been thoroughly studied. Drawing upon a broad notion of evidentiality (Chafe & Nichols 1986) – whereby evidential meanings are conceived of as expressions of speakers' epistemic attitudes to information (Mushin 2001) – the present research aims to investigate the relation that IS units bear on the communication of evidential meanings. Although this interaction is assumed to be characteristic of everyday speech, speakers' sensitivity to the evidential nature of certain criteria of information packaging is particularly visible in political propaganda (Sbisà 2007; Lombardi Vallauri 2009, Lombardi Vallauri & Masia 2014). The proposed analysis will therefore home in on speeches taken from the Italian, English and French political arenas with a view to showing how the use of presuppositions, assertions, topics and foci often correlate with the adoption of particular epistemic stances (Mushin 2001) on the part of speakers. Depending on the degree of epistemic responsibility (Toribio 2002), these stances may be more committal (what Mushin labels personal experience epistemic stances) – what we expect to find in the focalization or assertion of contents – or more

factual (factual epistemic stances), epitomized by the use of presuppositions and topics. A crucial factor in detecting (and classifying) evidential uses of IS units in political discourse concerns the type of content they often carry in a sentence. Previous corpus-based research (Garassino et al. 2016, in prep.) showed how politicians' use of presuppositions in Twitter is very often associated with the communication of self-praising or ideologically-oriented information, namely, information that is more likely to be challenged by the target audience. Building on these first attempts, the present analysis will put forward a characterization of IS units (mainly the topic-focus, presupposition-assertion distinctions), as markers of speaker attitude evidentiality on the basis of the evidential nuances they often correlate with in political discourse. Statistical analyses (such as the Pearson's correlation tests, cf. Gries 2013) will also be conducted in order to assess interactions between information packaging criteria and types of contents negotiated by politicians. Such interactions will be suggestive of epistemic attitudes manifested by speakers and, therefore, of the evidential outcome resulting from the IS conferred to their messages. In the view presented, presupposition and topic will be delineated as markers of factual evidentality – hinting at a weaker commitment of the speaker on the truth of some information -, whereas focus and assertion will be portrayed as markers of personal experience evidentiality, strengthening the speaker's commitment to the truth of the expressed proposition. A final, theory-driven purpose of the present research is therefore to provide an integrated account of evidentiality and IS phenomena and, more precisely, encompass IS among the strategies commonly devoted to marking evidentiality in the world's languages.

References

Chafe, W. & Nichols, J. (1986). *Evidentiality: The Linguistic Encoding of Epistemology*. Ablex, New York.

Garassino, D., Masia, V. & Brocca, N. (2016). Politici nella rete o nella rete dei politici? L'implicito nella comunicazione politica italiana su Twitter, Proceedings of the VIII° Dies Romanicus – "Networks", *PhiN-Beiheft*, 11, 66-79.

Garassino, D., Masia, V. & Brocca, N. (in prep). Implicit communication in Twitter. A corpus-based analysis of the pragmatic functions of implicatures and presuppositions. Submitted to *Journal of Pragmatics*.

Gries, Stefan Th. (2013), *Statistics for Linguistics with R. A Practical Introduction*. Berlin, De Gruyter Mouton.

Lambrecht, K. (1994). *Information Structure and Sentence Form: Topic, Focus, and the Mental Representation of discourse referents*. Cambridge University Press, Cambridge.

Lombardi Vallauri, E. (2009). *La struttura informativa. Forma e funzione negli enunciati linguistici*. Carocci, Roma.

Lombardi Vallauri, E. & Masia, V. (2014). Implicitness impact: measuring texts. Journal of Pragmatics, 61, 161-184.

Mushin, I. (2001). *Evidentiality and Epistemological Stance*. John Benjamins, Amsterdam/Philadelphia.

Nuyts, J. (2001). *Epistemic Modality, Language, and Conceptualization. A cognitive-pragmatic perspective*. John Benjamins, Amsterdam/Philadelphia.

Sbisà, M. (2007). *Detto non detto. Le forme della comunicazione implicita*. Laterza, Roma-Bari. Stalnaker, R. (1973). Presuppositions. *Journal of Philosophical Logic*, 2(4), 447-457.

Toribio, J.(2002). Semantic Responsibility, *Philosophical Explorations*, 1, 39-58.

Evidentiality and the TAM systems in English and Spanish: A cognitive and cross-linguistic perspective

Juana I. Marín-Arrese

(Universidad Complutense de Madrid)

This paper examines the functions of inferential and reportative evidentiality in relation to tense-aspect-modality systems. Temporal concepts, as Jaszczolt (2013) argues, reflect degrees of commitment to or detachment from the certainty of an eventuality. From a CG account, the systems of tense-aspect-modality are conceived as dimensions of clausal grounding, which provide an epistemic assessment concerning the existential status of the profiled occurrence. Following Langacker (2016), it is assumed that inference is a basic component of both evidential systems and tense and modality grounding systems.

TAM forms are attested for epistemic/inferential values in a number of European languages (Squartini 2001; Cruschina and Remberger 2008; Boye 2012). In Spanish the future simple and perfect may evolve inferential values; for the conditional we find both inferential and reportative values while the conditional perfect extends to the reportative domain. In these extensions we find that relative temporal distance is typically mapped onto relative epistemic distance, with the future and future perfect correlating with medium or distal epistemicity (Chilton 2014). As regards the semantic extension of the conditional and conditional perfect to the indirect-reportative subdomain, it is hypothesized this may be doubly motivated by conceptual distancing from the ground, both in terms of non-immediacy and of the feature irrealis (Givon 1989).

The paper presents results of a contrastive case study (English vs. Spanish) on tense-aspect markers realizing evidential functions. The data consists of naturally occurring examples, randomly selected from spoken and written corpora in the two languages (BNC, CORLEC, CESJD-UCM). The analysis of the data will focus on indirect-inferential (perception-based and conceptual-based) and indirect-reportative values of evidentiality.

References

Boye, Kasper (2012). *Epistemic meaning: A crosslinguistic and functional-cognitive study*. Berlin: Mouton de Gruyter.

Brisard, Frank (2013). An account of English tense and aspect in Cognitive Grammar. In: Kasia M. Jaszczolt and Louis de Saussure (eds.) *Time. Language, Cognition and Reality*. Oxford: Oxford University Press. 210-235.

Chilton, Paul. (2014). *Language, Space and Mind: The Conceptual Geometry of Linguistic Meaning*. Cambridge: Cambridge University Press.

Cruschina, Silvio and Eva-Maria Remberger (2008). Hearsay and Reported Speech: Evidentiality in Romance. *Rivista di Grammatica Generativa* 33: 95-116.

Givon, Thomas (1989). *Mind, Code, and Context: Essays in Pragmatics.* Hillsdale, New Jersey: Lawrence Erlbaum.

Jaszczolt, Kasia M. (2014). Temporality and epistemic commitment: an unresolved question. In: Kasia M. Jaszczolt and Louis de Saussure (eds.) *Time. Language, Cognition and Reality*. Oxford: Oxford University Press. 193-209.

Langacker, Ronald W. (2016). Evidentiality in Cognitive Grammar. Plenary paper presented at the *International Conference on Evidentiality and Modality in European Languages* (EMEL'14), 6-8 October 2014, Universidad Complutense de Madrid, Madrid.

Squartini, Mario (2001). The internal structure of evidentiality in Romance. *Studies in Language* 25 (2): 297-334.

An FDG analysis of English evidential *–ly* adverbs.

Lois Kemp

(University of Amsterdam)

The aim of this talk will be to show how Functional Discourse Grammar (FDG) can be used to analyse present-day evidential *–ly* adverbs in English. Hengeveld & Hattnher (2015) use the hierarchical FDG analysis to draw up a classification of scopal differences in grammatical evidential elements in non-European languages that have a coherent grammaticalized morphosyntactic evidential system. This approach will now be adopted for a systematic study of English lexical evidential *–ly* adverbs retrieved from British online news articles.

The present study will apply to English *–ly* evidential adverbs the FDG four-way distinction of evidential subcategories distinguishing reportativity, inference, deduction and event perception, which represent four kinds of knowledge base. Hengeveld & Hattnher (2015) also make a distinction between, on the one hand, reportativity at the Interpersonal Level, and, on the other hand, inference, deduction and event perception at the Representational Level. Table 1 shows at which Layer each evidential category is placed.

Table 1: *Subcategories of evidentiality in relation to the FDG layers*

<u>Interpersonal Level</u>

Discourse Act > Illocution > Communicative Content > Referential Subact >
Ascriptive Subact

Reportativity

<u>Representation Level</u>

Propositional content > Episode > State of Affairs > Configurational Property >
Property

Inference *Deduction* *Event Perception*

Based on the concept of the diachronic development of evidentials along a scopal pathway, Hengeveld & Hattnher (2015) predict that if an evidential item has more than one evidential meaning, the meanings will express categories placed at contiguous Layers within the FDG Levels. It is also claimed that an evidential item at any of the Representational Layers can increase in scope and appear at the Interpersonal Level. An evidential item with different meanings could then appear at the Interpersonal Level and the Representational Level.

The English evidential –*ly* adverbs selected for analysis are *apparently, reportedly, purportedly, allegedly, evidently, supposedly, seemingly, presumably, perceivably, visibly, audibly.* As seen in Table 2, which shows the results of the analysis, these evidential adverbs all call on a knowledge base.

Table 2: *Categorization of –ly adverbs into FDG Layers and Levels*

-ly adverb	----------Representational --------------			-Interpersonal-
	State of Affairs	Episode	Propositional Content	Communicative Content
apparently		+	+	+
reportedly				+
purportedly				+
allegedly				+
evidently		+		
supposedly				+
seemingly		+	+	
presumably			+	
perceivably	+	+	+	
visibly	+	+		
audibly	+	+		
	event perception	deduction	inference	reportativity

The categorization in Table 2 reveals that English –*ly* evidentials examined have different roles to play with regard to evidentiality. If the above analysis, which is based on the varying scope of the different categories is accepted, then it appears that for these –*ly* evidential adverbs, Hengeveld and Hatthner (2015)'s prediction is supported. Evidential –*ly* adverbs with multiple meanings do indeed fall into contiguous categories. Many of these items appear at contiguous Layers at the Representational Level. Of the adverbs studied, it is only *apparently* that has been categorized on both the Representational Level and the Interpersonal Level.

References

Aikenveld, A.Y. (2004). *Evidentiality*. Oxford: Oxford Universtiy Press.

Aksu-Koç, A. & Slobin, D.I. (1986). A psychological account of the development and use of evidentials in Turkish. In W.Chafe & J. Nichols (eds). *Evidentiality: The Linguistic coding of Epistemology. Norwood, NJ: Ablex Publishing Corporation*.

Bednarek. M. (2006). Epistemological positioning and evidentiality in English news discourse: a text-driven approach. *Text and talk* 26(6), 635-660.

Brugman, C.M., & Macaulay, M. (2015). Characterizing Evidentiality. Linguistic Typology 19:2, 201-237.

Celle, A. (2009). The intersubjective function of modal verbs. A contrasting English French study of adverbs in journalistic discourse. Language in Contrast 9:1, 23-36.

Celle, A. (2009a). Hearsay adverbs and modality. In R. Salkie, P. Busuttil & J. van der Auwera (eds), Modality in English: theory and description. Berlin: Walter de Gruyter.

Chafe, W. (1986). "Evidentiality in English conversation and Academic Writing." In W.Chafe & J. Nichols (eds). *Evidentiality: The Linguistic coding of Epistemology. Norwood, NJ: Ablex Publishing Corporation*.

Cornillie, B. (2009). Evidentiality and epistemic modality. On the close relationship between two different modalities. Functions in Language 16:1, 44-62.

Diewald, G. & Smirnova, E. (2010). *Evidentiality in German. Linguistics realization and regularities in grammaticalization*. De Gruyter Mouton.

Hengeveld, K. & Hattnher, M. (2015). Four types of evidentiality in the native languages of Brazil. *Linguistics* 53.3: 479-524.

Hengeveld, K. & Mackenzie J.L. (2008). *Functional discourse Grammar: A typological-based theory of language structure*. Oxford: Oxford University Press.

Keizer, E. (2015). A Functional Discourse Grammar for English. Oxford: Oxford University Press.

Lazard G. (2001). On the grammaticalization of evidentiality. *Journal of Pragmatics* 33(3), 359-367.

Mushin, I. (2001). *Evidentiality and epistemological stance: narrative retelling*. Amsterdam: John Benjamins.

Van Dijk, T. (2014). *Discourse and Knowledge. A Sociocognitive Approach*. Cambridge: Cambridge University Press.

Evidentiality as encoding the mode of access

Dámaso Izquierdo Alegría & Bert Cornillie
(ICS-GRADUN, Universidad de Navarra & KU Leuven)

The theoretical and methodological debate on how the linguistic category of evidentiality should be delimited has for a long time been focused, among other things, on the distinction between evidentiality and epistemic modality, Anderson's (1986) criteria and requisites for identifying evidential expressions, and the differences between a broad and a narrow view of evidentiality. Yet, whether analysts choose the broad or the narrow view, *source (of information)* and *evidence* are almost always mentioned as the prototypical features of evidentiality (see, for instance, Chafe 1986, Aikhenvald 2004). These nouns, which are often used as equivalents in the literature, can refer to very different epistemological entities: for example, *source* can designate a human being (1), the place from where information is obtained (2) or an epistemological process (3). However, they are not usually defined as specialized terms and their referential extension remains very vague.

(1)   The implication then is that the **source** of information is <u>someone other than the speaker</u>. (Aikhenvald 2004: 110)

(2)   Although in (4) the access to the **source** of information, i.e. <u>newspaper article(s)</u>, can hardly be considered restricted to the speaker, the speaker's conclusion is not necessarily shared with other people. (Cornillie 2007: 25)

(3)   Nevertheless, such elements can still be classed as indirect evidentials as they are infelicitous when the speaker has direct evidence for *p* and because they point to <u>a mental process</u> as the **source** of information for *p*. (Faller 2011: 672)

In this paper we will discuss the concepts of *source* and *evidence* and distinguish them from *basis* and *mode of access* (Izquierdo Alegría 2016). We will show that only *mode of access* is truly evidential.

Firstly, we will demonstrate that the concepts of *source* and *evidence* have some serious disadvantages. When working with languages without a grammatical category of evidentiality, i.e. the bulk of the European languages, analysts run the risk of classifying as evidential expressions those whose meaning and/or contextual values can be paraphrased as "source" or "evidence". This problem is observed in evidential descriptions of several viewpoint (*according to*) and opinion (*in my opinion*, *personally*) expressions in Romance and Germanic languages (Borillo 2005: 48-49; Hyland 2005: 219; Wiemer 2007:185-186; 2010: 107-109; Pietrandrea 2007; Schenner 2008: 204, 210; González Ramos 2009, 2015; González Vergara 2011: 149-150).

Secondly, we will show that previous attempts to explicitly define the concepts of *source* and *evidence* are not completely satisfactory (Chafe 1986; Botne 1997; Squartini 2001, 2008; Rooryck 2001; Bermúdez 2005; Bednarek 2006; Tournadre & LaPolla 2014). We will argue for a clear distinction between (i) Source, (ii) Basis and (iii) Mode of access, and will define the latter as the only parameter that is properly evidential. This conclusion is based on a close scrutiny of the different evidential systems in the world's languages (Aikhenvald 2004: 23-66) from the point of view of this threefold distinction.

References

Aikhenvald, A. (2004): *Evidentiality*. Oxford: Oxford University Press.

Anderson, L. B. (1986): "Evidential paths of change, and mental maps: typologically regular asymmetries". In W. Chafe & J. Nichols (eds.), *Evidentiality: The Linguistic Coding of Epistemology*. Norwood, nj: Ablex, 273–312.

Bednarek, M. (2006): "Epistemological positioning and evidentiality in English news discourse: A text-driven approach", *Text & Talk*, 26/6, 635–660.

Bermúdez, F. (2005): *Evidencialidad: La codificación lingüística del punto de vista*. PhD dissertation. University of Stockholm.

Borillo, A. (2005): "[*d'après* N], complément circonstanciel et marqueur énonciatif d'évidentialité". In I. Choi-Jonin *et alii* (eds.), *Questions de classification en linguistique: méthodes et descriptions. Mélanges offerts au Professeur Christian Molinier*. Bern: Peter Lang, 39-53.

Botne, R. (1997): "Evidentiality and Epistemic modality in Lega", *Studies in Language*, 21/3, 509–532.

Chafe, W. (1986): "Evidentiality in English conversation and academic writing". In W. Chafe & J. Nichols (eds.) *Evidentiality: The Linguistic Coding of Epistemology*. Norwood, nj: Ablex, 261–272.

Cornillie, B. (2007): *Evidentiality and Epistemic Modality in Spanish (Semi-) Auxiliaries: A Cognitive-Functional Approach*. Berlin: Walter de Gruyter.

Faller, M. (2011): "A possible worlds semantics for Cuzco Quechua evidentials". In N. Li & D. Lutz (eds.), *Proceedings of salt 20*. Vancouver: University of British Columbia/Simon Fraser University, 660–683.

González Ramos, E. (2009): "La expresión de la opinión personal: a propósito del signo complejo evidencial *en mi opinión*", *Interlingüística*, 18, 553–563.

González Ramos, E. (2015): "*Personalmente*: la llamada evidencialidad en español". In D. Serrano Dolader, M. Porroche Ballesteros & Mª A. Martín Zorraquino (eds.), *Aspectos de la subjetividad en el lenguaje*. Zaragoza: Institución Fernando el Católico, 119–132.

González Vergara, C. (2011): "Estrategias gramaticales de expresión de la evidencialidad en el español de Chile", *Alpha (Osorno)*, 32, 14–165.

Hyland, K. (2005): *Metadiscourse*. London: Bloomsbury.

Izquierdo Alegría, D. (2016): *Alcances y límites de la evidencialidad: aspectos teóricos y propuesta de análisis aplicada a un conjunto de adverbios evidencialoides del español*. PhD dissertation. University of Navarra (Spain).

Pietrandrea, P. (2007): "The grammatical nature of some epistemic-evidential adverbs in spoken Italian", *Italian Journal of Linguistics*, 19/1, 39–63.

Rooryck, J. (2001): "Evidentiality, Part i", *Glot International*, 5/4, 125–133.

Schenner, M. (2008): "Semantic complexity of evidentials: Some typological parameters". In M. Kokkonidis (ed.), *Proceedings of LingO 2007*. Oxford: University of Oxford, 204–211.

Squartini, M. (2001): "The internal structure of evidentiality in Romance", *Studies in Language*, 25/2, 297–334.

Squartini, M. (2008): "Lexical and grammatical evidentiality in French and Italian", *Linguistics*, 46/5, 917–947.

Tournadre, N. & R.J. LaPolla (2014): "Towards a new approach to evidentiality: Issues and directions for research", *Linguistics of the Tibeto-Burman Area*, 37/2, 240–263.

Wiemer, B. (2007): "Lexical markers of evidentiality in Lithuanian", *Rivista di Linguistica*, 19/1, 173–208.

Wiemer, B. (2010): "Hearsay in European languages: toward an integrative account of grammatical and lexical marking". In G. Diewald & E. Smirnova (eds.), *Linguistic Realization of Evidentiality in European Languages*. Berlin: Walter de Gruyter, 59–129.

Martine Bruil
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Evidence from discourse: Corpus-based methodology of describing an analysing the 'evidential' markers in Tena Kichwa

Karolina Grzech
(SOAS, University of London)

Quechuan languages are known to exhibit a three-way evidential distinction between direct, inferential/conjectural and reported source of information, marked by non-obligatory free enclitics (e.g. Aikhenvald 2004). Although most described Quechuan varieties adhere to this threefold division, some recent studies indicate that it does not apply consistently across the language family; Certain Peruvian Quechua varieties are said to make five or six evidential distinctions, distinguishing between the categories mentioned above, as well as between individual and shared knowledge (cf. Hintz & Hintz 2014). In Pastaza Quichua (Ecuador), the 'evidential' enclitics are reported to mark not evidentiality, but 'speaker subjectivity' (Nuckolls 2012).

Tena Kichwa (henceforth TK, QII, Ecuador), is another Quechuan language with a non-standard 'evidential' system. Data collected in 2013-14 within the TK documentation project show that the reportative marker is not attested in this variety. Moreover, the two remaining 'evidential' enclitics do not encode the evidential values of the 'direct' and 'inferential/conjectural' information source. Rather, they indicate the origo's (lack of) 'epistemic primacy' - 'the relative right to know or claim' (cf. Stivers et al. 2011). Consequently, the two TK markers are more subjective than their evidential

cognates. The use of evidential enclitics in most Quechuan varieties is anchored to the source of evidence in the text-external word. The use of the TK markers of epistemic primacy (=*mi*), or lack thereof (=*cha*), can similarly be grounded in the text-external world. However, the two enclitics can also be used on the basis of the speakers' subjective perceptions of whether a given piece of information is within or outside their 'territory of information' (Kamio 1997).

This talk has two main objectives. The first one is to show how the TK 'epistemic primacy' enclitics differ from their evidential cognates in other Quechuan varieties, and therefore to contribute the current knowledge of evidential and related systems in Quechuan languages. The second goal of this talk is to describe the inductive, corpus-based methodology I used in the study of the TK markers, and to show its implications for the investigation of evidential, epistemic and related systems in a cross-linguistic perspective.

I describe how the inductive methodology can lead to discovering unexpected patterns in the data, and provide examples from naturalistic and elicited TK discourse to illustrate the point. I focus particularly on demonstrating that expressions encoding semantic distinctions related to the source and distribution of information - such as evidentials and epistemic primacy markers - can be described and analysed adequately only if approached from a functional, 'interactional' viewpoint (cf. Michael 2008; Gipper 2011). I relate the investigation into the TK enclitics to previous interactional studies of epistemic meanings, showing how they have led to the conceptualisation of broader semantic categories such as 'perspective' (cf. Bergqvist 2015). Lastly, I discuss the importance of triangulating the discourse data with data obtained from other sources, including interactive experimental tasks designed especially for the purpose of investigating evidential and epistemic meanings.

References

Aikhenvald, Alexandra Y. 2004. *Evidentiality*. Oxford University Press.

Bergqvist, Henrik. 2015. The role of "perspective" in epistemic marking. *Lingua*. doi:10.1016/j.lingua.2015.02.008.

Gipper, Sonja. 2011. *Evidentiality and Intersubjectivity in Yurakaré: an Interactional Account*. PhD Thesis. Nijmegen: Radboud University.

Hintz, Daniel J. & Diane M. Hintz. 2014. The evidential category of mutual knowledge in Quechua. *Lingua*. doi:10.1016/j.lingua.2014.07.014.

Kamio, Akio. 1997. *Territory of Information*. Amsterdam: John Benjamins.

Michael, Lev David. 2008. *Nanti Evidential Practice: Language, Knowledge, and Social Action in an Amazonian Society*. Ann Arbor: ProQuest.

Nuckolls, Janis. 2012. From quotative other to quotative self: Evidential usage in Pastaza Quichua. *Pragmatics and Society* 3(2). 226–242.

Stivers, Tanya, Lorenza Mondada & Jakob Steensig. 2011. Knowledge, morality and affiliation in social interaction. In Tanya Stivers, Lorenza Mondada & Jakob Steensig (eds.), *The Morality of Knowledge in Conversation*, 3–24. Cambridge: Cambridge University Press.

On mirative evidentials

Javier Carol & Andrés Pablo Salanova
(CONICET/UADER/UBA & U. of Ottawa)

A complementarity between indirect evidentiality and mirativity is a well-known pattern, present in the earliest discussions of mirativity (Slobin and Aksu 1982, DeLancey 1997), despite repeated arguments from typological studies that the two categories are essentially distinct (DeLancey 2001, Aikhenvald 2012, Peterson 2016). We follow Rett and Murray (2013) in calling the evidentials that have mirative uses *mirative evidentials*. An example of such a category is the particle *lõ* in Hare (Na-Dene, DeLancey 1997), which may indicate both indirect evidence and surprise:

(1)   Mary e-wé' ghálayeyĩda lõ.
        Mary its-hide work.perf lõ
        "Mary worked on hides." [The speaker sees Mary all covered with moose hair, which is the typical state of someone who has been processing moose hides.]

(2)   Mary e-wé' ghálayeda lõ.
        Mary its-hide work.impf lõ
        "Mary is working on hides." [The speaker has just gone to Mary's house and found her working on a hide, with no prior expectation of that being the case; i.e. in a context where the speaker has first-hand knowledge of unanticipated information.]

The complementarity between the two readings is implicitly characterized as one where the default meaning of the mirative evidential is to indicate indirect evidence; the mirative meaning arises when direct evidence is available, cancelling the default meaning of the particle. This is what happens in the imperfective clause in (2), which is interpreted as ongoing in the present and hence is witnessed directly.

In this talk, we have something very different to say about a superficially similar particle found in Guaraní (Tupian; Paraguay, Argentina, Brazil, Bolivia), *ra'e*, which is already called by Tonnhauser (2006) "non-expected evidential marker":

(3)   O-u Pablo ra'e.
        2sg.act-come Pablo ra'e
        "Pablo came." [the speaker sees a trace of Pablo's arrival]

(4)   Rei-kove ra'e.
        2sg.act-live ra'e
        "[So] you are [still] alive." [with tongue-in-cheek surprise]

We claim that the proper empirical generalization surrounding the two meanings of *ra'e* is the following: (a) The mirative component of meaning can be present regardless of the type of evidence that is available, as long as the evaluation time is utterance time. (b) The indirect evidential component of meaning only arises when the clause describes a completed event.

We contend that such facts are adequately captured by assigning to *ra'e* the meaning of *acquisition of evidence at evaluation time*, a meaning which Mexas (2016) independently concludes is behind many constructions labeled "mirative" in the typological literature. Recent work on evidentiality (Fleck 2007, Speas 2010, Koev 2011, Lee 2013, Smirnova 2013, Kalsang et al. 2013, a.o.) has highlighted the relevance of an evidence acquisition time or situation for the proper description of evidential meaning. One promise of such an approach is that it will bring evidentiality closer to the better-understood categories of tense and aspect, a preoccupation which was present in early formal approaches to evidentials (Izvorski 1997) but is absent in later work (Matthewson et al. 2006, Faller 2002). To our knowledge, the study of mirative evidentials hasn't yet taken advantage of this insight.

In Salanova and Carol (submitted) we discuss the relationship between acquisition of evidence at evaluation time and mirativity, concluding that what is termed "mirative" in the literature is profitably

decomposed into at least two distinct notions, discovery and counter-expectation, with the latter being further decomposable into a comparision the prejacent proposition with (likelier) alternatives and an indication of surprise. The meaning of Guaraní *ra'e* encodes only discovery, while the sense of counter-expectation is independently encoded through focus particles. In this talk, which is largely complementary to Salanova and Carol (op. cit.), we primarily develop an analysis of the relationship between acquisition of evidence at evaluation time and core evidential meaning, i.e. source of evidence.

The core question to answer in this regard is why (3) acquires the sense that evidence for the proposition is indirect. If *ra'e* means acquisition of evidence precisely at evaluation time, and (3) describes a past situation, the arrival itself could not have been witnessed, since in order to use *ra'e* the speaker has to have had insufficient evidence to make the assertion previous to the evaluation time. But why then can't *ra'e* be used exactly at the moment that the speaker witnesses the event unfolding, in the case of an eventuality such as (3)? We claim that this is independent from the meaning of *ra'e*. Though the exact generalization is elusive, cross-linguistically it is very common that telic or dynamic eventualities resist aligning their culmination point with utterance time. In languages that display the "factative effect", for instance, stative predicates are interpreted in the present, while dynamic ones are interpreted in the past (Welmers 1973, 346). This generalization also holds in Guaraní. If the culmination is forced to be in the past by a general principle, and the evidence acquisition encoded in *ra'e* is forced to be in the evaluation time, it is clear that the evidence cannot be direct evidence, which has to be concurrent to the event.

This brings Guaraní *ra'e* very close to Korean *–te* (Lee 2013), with several important differences: on the one hand, the evaluation time for Korean *–te* is always in the past, precluding the mirative readings found in *ra'e* and explaining the use of *–te* in narrative, a usage that is not found in *ra'e*; on the other hand, Korean *–te* does not interact with a "default" assignment of temporal interpretation as we just described for Guaraní, making its evidential contribution dependent solely on the explicit aspectual specification of the predicate.

We close by showing how our approach sheds some light on the "mirative evidentials" of languages such as Turkish, and on the relative-tense evidentials of Matsés (Fleck 2007).

References

Aikhenvald, Alexandra. 2012. The essence of mirativity. Linguistic Typology 16:435–485.

DeLancey, Scott. 1997. Mirativity: The grammatical marking of unexpected information. Linguistic Typology 1:33–52.

DeLancey, Scott. 2001. The mirative and evidentiality. Journal of Pragmatics 33:369–382.

Faller, Martina. 2002. Semantics and pragmatics of evidentials in Cuzco Quechua. Doctoral Dissertation, Stanford University.

Fleck, David. 2007. Evidentiality and double tense in Matsés. Language 83:589–614.

Izvorski, Roumyana. 1997. The present perfect as an epistemic modal. In Proceedings of SALT 7, ed. Aaron Lawson and Eun Cho, 222–239. Ithaca, NY: CLC.

Kalsang, Jay Garfield, Margaret Speas, and Jill de Villiers. 2013. Direct evidentials, case, tense and aspect in Tibetan: evidence for a general theory of the semantics of evidential. Natural Language and Linguistic Theory 31:517–561.

Koev, Todor. 2011. Evidentiality and temporal distance learning. In Proceedings of salt 21, ed. Neil Ashton, Anca Chereches, and David Lutz, 115–134. Linguistic Society of America. Lee, Jungmee. 2013. Temporal constraints on the meaning of evidentiality. Natural Language Semantics 21:1–41.

Matthewson, Lisa, Hotze Rullmann, and Henry Davis. 2006. Evidentials are epistemic modals in St'át'imcets. In Papers for the 41st international conference on Salish and neighboring languages, 211–263. UBC Working Papers in Linguistics.

Mexas, Haris. 2016. Mirativity as realization marking: a cross-linguistic study. Master's thesis, Universiteit Leiden.

Peterson, Tyler. 2016. Mirativity as surprise: evidentiality, information, and deixis. Journal of Psycholinguistic Research 45:1327–1357.

Rett, Jessica, and Sarah Murray. 2013. A semantic account of mirative evidentials. In Proceedings of SALT 23, 453–472. Linguistic Society of America.

Salanova, Andrés Pablo, and Javier Carol. submitted. The Guaraní mirative evidential and the decomposition of mirativity. In Proceedings of NELS 47.

Slobin, Dan, and Ayhan Aksu. 1982. Tense, aspect and modality in the use of the Turkish evidential. In Tense-aspect: Between semantics and pragmatics, ed. Paul Hopper. Amsterdam and Philadelphia: John Benjamins.

Smirnova, Anastasia. 2013. Evidentiality in Bulgarian: temporality, epistemic modality, and information source. Journal of Semantics 30:479–532.

Speas, Margaret. 2010. Evidentials as generalized functional heads. In Interface legibility at the edge, ed. Anne-Marie DiSciullo, 127–150. Oxford University Press.

Tonnhauser, Judith. 2006. The temporal semantics of noun phrases: Evidence from Guarani. Doctoral Dissertation, Stanford.

Welmers, William E. 1973. African language structures. University of California Press.

Between Evidentiality, Immediacy, and Epistemic Certainty in Kari'nja

Berend Hoff, Spike Gildea, & Racquel-María Sapién
(University of Leiden University of Oregon University of Oklahoma)

In Kari'nja (ISO-639-2: car, Cariban, Suriname) Hoff (1968) describes *-ŷ* as interrogative modality. Hoff (1986) describes *-ŷ* as introspective (non-eyewitness) evidence, in opposition to *-Ø*, which indicates extraspective (eyewitness) evidence. Yamada (2011) describes this opposition as modal, *-Ø* marking epistemic certainty and *-ng* (same morpheme, alternative orthography) uncertainty. All three of these analyses are plausible with SAP subjects (1-2). With 3rd person subjects, the same formal opposition exists (3-4), but an additional prefix, *kï-/ky-* combines with *-ŷ/-ng* to create a third construction (5). This prefix is so frequent in texts that Hoff (1968) originally describes *kïn-* as simply an allomorph of *n-* '3subj'. Hoff (1986) separates *kï-* as a marker of certainty, creating an epistemic opposition within the category of introspective evidence: without the prefix, the indirect evidence marked by *-ŷ* implies uncertainty; with the prefix, the speaker indicates that the intraspective evidence is nonetheless reliable. However, Yamada (2011) points out examples in which the combination *ky-n-V-ng* occurs when the speaker has eyewitness information, suggesting that there is still more to the story.

After re-examining textual examples with 3rd person subjects, and after reviewing Hoff's extensive elicitation notes with speaker Robert Kiban, we posit a new interpretation: *-Ø* only occurs when the speaker has eyewitness evidence AND the utterance occurs immediately after experiencing that evidence, a composite category that Hoff proposes to label direct evidence. With either non-eyewitness evidence or with less immediate eyewitness evidence, *ky-n-V-ng* occurs. As such, uniquely

with third person subjects, *-ng* does not consistently code merely source of knowledge, but also this temporal/modal dimension of the situation.

Understanding these features of the evidential markers in Kari'nja may illuminate patterns with cognate morphology in other Cariban languages. In six languages, cognates are described as marking only certainty versus uncertainty. In three (Akawaio, Caesar-Fox 2003; Tiriyó, Meira 1999/Carlin 2004; and Wayana, Tavares 2005), the so-called certainty suffix only occurs with SAP subjects (reminiscent of egophoricity), leaving 3rd person subjects with only the putative uncertainty suffix, regardless of certainty or source of information. However, even in one of these (Akawaio), a parallel Direct/Indirect evidence distinction is still attested with copulas.

We argue that direct evidence, but not certainty, is a plausible semantic antecedent to restrict to SAP subjects and that indirect evidence, but not uncertainty, is a more plausible semantic antecedent for the only form available to 3rd person subjects. We suggest re-examining the semantics of cognate forms.

Examples

(1) *s-ene-ja*

    s-   ene   -ja
    1A3O- see   -prs
    'I see it'

(2) *m- ene -ja-**ng***

    m-   ene   -ja   -ng
    2A3O- see   -prs   -ng
    'do you see it?' / 'you see it (uncertain)'

(3) *n- ene -ja*

    n-   ene   -ja
    3A3O- see   -prs
    'he sees it'

(4) *n- ene -ja-**ng***

    n-   ene   -ja   -ng
    3A3O- see   -prs   -ng
    'does he see it?' / 'he sees it (uncertain)'

(5) ***ky**- n- ene -ja-**ng***

    ky-   n-   ene   -ja   -ng
    ky-   3A3O- see   -prs   -ng
    'he sees it'

References

Caesar-Fox, Desrey C. 2003. *Zauro'nödok Akawaio yau*: Variants of Akawaio Spoken at Waramadong. Houston: Rice University Ph.D. Dissertation.

Carlin, Eithne. 2004. A grammar of Trio, a Cariban language of Suriname. Duisburg Papers on Research in Language and Culture, vol. 55. Frankfurt-am-Main: Peter Lang.

Hoff, Berend. J. 1968. The Carib Language. The Hague: Martinus Nijhoff.

Hoff, Berend. J. 1986. Evidentiality in Carib, particles affixes and a variant of Wackernagel's law. Lingua, 69: 49-103.

Meira, Sérgio. 1999. A grammar of Tiriyó. Houston: Rice University Ph.D. Dissertation.

Tavares, Petronila da Silva. 2005. A Grammar of Wayana. Houston: Rice University Ph.D. Dissertation.

Yamada, Racquel-María. 2011. An updated analysis of *ky-* and *-ng* in Kari'nja: Evidentiality or deixis? *International Journal of American Linguistics* 77 (1): 59-90.

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WORKSHOP 21

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Revisiting discourse markers and discourse relations in functional-cognitive space: Models and applications across languages, registers and genres

María de los Ángeles Gómez González & Francisco Gonzálvez García
(University of Santiago de Compostela & University of Almería)

Discourse relations, also known as 'coherence relations' or 'rhetorical relations' (Mann & Thompson, 1988; Taboada, 2006; Taboada & Mann, 2006), comprise many different relations between clauses or larger units that are essential for maintaining the cohesion and coherence of discourse (Halliday & Hassan, 1976; Shriffrin, 1988). Among others, relations such as cause, result, purpose, concession, or condition, to name but a few, have been studied from many different perspectives (Van der Auwera, 1998; Couper-Kuhlen & Kortmann, 2000; Dancygier & Sweetser, 2000, 2005; Gómez González & Taboada, 2005; Sanders & Sweetser, 2009; Taboada & Gómez González, 2012; Ruiz de Mendoza & Gómez González, 2014; Lastres López, 2015, 2016; Gómez González, in press; among others). Previous studies have shown that the markers of discourse relations are generally 'multifunctional' in the sense that they may not only express different rhetorical relations in different contexts but can also be interpreted differently in one and the same context, and consequently they are difficult to assign to one particular semantic category (Couper-Kuhlen & Kortmann, 2000; Andersen, 2001; Aijmer, 2002; Asher & Lascarides, 2003; González, 2005; Siegel, 2006; Izutsu, 2008; Romero-Trillo, 2012; Cuenca, 2013; Lastres López, 2015, 2016; Gómez González, in press). Likewise, the expression of discourse relations does not necessarily involve the obligatory presence of a discourse marker, and thus the relation may either be expressed differently (lexically, for example) or it may not have an explicit linguistic signal in discourse at all (Taboada, 2006; Taboada & Mann, 2006; Prasard *et al*., 2008; Levy & Jaeger, 2010).

Following Schiffrin's (1988) distinction between 'particles' (*well*, *then*, or *you know*) and 'connectives' (*but*, *because*, or *if*), this workshop invites proposals that address the notions of discourse markers and discourse relations within the so-called 'functional-cognitive space' or "the topography of the theoretical space occupied by functional, cognitivist and/or constructionist accounts of language as seen against the background of formalist approaches" (Gómez González *et al.*, 2014: 11; cf. also Butler & Gonzálvez-García, 2014). Our aim is to create a forum in which participants can share ideas regarding the theoretical description of discourse relations and discourse markers from functional, cognitivist and/or constructionist perspectives, as well the usage-based application of such proposals across different languages, registers and genres. Although functional classifications of discourse markers and discourse relations seem to prevail in the literature, as in the studies mentioned above, there is still some debate regarding such issues as their degree of syntactic integration, or the taxonomies and functional domains that are most amenable to the principles of exhaustivity (in the selection of observed phenomena) and flexibility in their application to different languages, registers, genres, technical formats and theoretical frameworks, to mention but a few (Briz Gómez & Pons Bordería, 2010; Bolly *et al.,* 2015, in press; Crible & Degand, 2015). Similarly, while a large body of research has primarily focused on English, contrastive investigations comparing the similarities and divergences among (varieties of) languages have proved very useful to explore the dynamics of discourse markers usage and their involvement in signalling coherence relations (Taboada, 2004;

Aijmer & Simon-Vandenbergen, 2006; Gómez González, in press). Nevertheless, the richness of these contrastive investigations does not detract from the fact that much ground has yet to be covered.

We therefore invite proposals that examine discourse markers and discourse relations from synchronic or diachronic perspectives and across varieties of the same language or cross-linguistically. In particular, this panel welcomes proposals dealing with the following research questions:

- What is the most effectual classification of discourse markers and/or discourse relations within functional-cognitive space and why? Can functionalist, cognitivist and constructionist accounts be integrated? Does such a model follow the principles of flexibility and exhaustivity?
- How is a given discourse marker and/or discourse relation best conceptualised within functional-cognitive space? Does such a model have empirical validity for several languages?
- How are discourse relations expressed and used across languages and genres?
- When, how frequently and why are discourse relations either made explicit or left implicit? Can a discourse relation be expressed by devices other than connectives and particles? Why does that happen?

References

Aijmer, K. (2002). *English Discourse Particles: Evidence from a corpus.* Amsterdam: John Benjamins.

Aijmer, K., & Simon-Vandenbergen, A. M. (2006). *Pragmatic Markers in Contrast.* Oxford: Elsevier.

Andersen, G. (2001). *Pragmatic markers and sociolinguistic variation: a relevance theoretic approach to the language of adolescents.* Amsterdam: John Benjamins.

Asher, N. & Lascarides, A. (2003). *Logics of Conversation.* Cambridge: Cambridge University Press.

Bolly, C., Crible, L., Degand, L. & Uygur-Distexhe, D. (2015). MDMA. Identification et annotation des marqueurs discursifs "potentiels" en contexte. *Discours* 16, 3-32.

Bolly, C., Crible, L., Degand, L. & Uygur-Distexhe, D. (in press). Towards a Model for Discourse Marker Annotation. From potential to feature-based discourse markers. In C. Fedriani & A. Sansó (Eds.), Discourse Markers, Pragmatic Markers and Modal Particles: New Perspectives. Amsterdam: John Benjamins.

Briz Gómez, A. & Pons Bordería, S. (2010). Unidades, marcadores discursivos y posición. In O. Loureda Lamas & E. Acín Villa (Eds.), *Los estudios sobre marcadores del discurso en español* (pp. 523-557). Madrid: Arco Libros.

Butler, C. S. & Gonzálvez-García, F. (2014). *Exploring Functional-Cognitive Space*. Amsterdam: John Benjamins.

Couper-Kuhlen, E., & Kortmann, B. (Eds.). (2000). *Cause, condition, concession, contrast: cognitive and discourse perspectives.* Berlin: Mouton de Gruyter.

Crible, L., & Degand, L. (2015). Functions and syntax of discourse connectives across languages and genres: Towards a multilingual annotation scheme. *Paper given at the 14th International Pragmatics Conference (IPrA).* Antwerp, Belgium, 26-31 July 2015.

Cuenca, M. J. (2013). The fuzzy boundaries between discourse marking and modal marking. In L. Degand, B. Cornillie & P. Pietrandrea (Eds.), *Discourse markers and modal particles. Categorization and description* (pp. 191-216). Amsterdam: John Benjamins.

Dancygier, B., & Sweetser, E. (2000). Constructions with 'if', 'since', and 'because': Causality, epistemic stance, and clause order. In E. Couper-Kuhlen, & B. Kortmann (Eds.), *Cause, condition, concession, contrast: Cognitive and discourse perspectives* (pp. 111-142). Berlin: Mouton de Gruyter.

Dancygier, B., & Sweetser, E. (2005). *Mental spaces in grammar: conditional constructions.* Cambridge: Cambridge University Press.

Gómez González, M. Á. (in press). Concession in evaluative discourse: The semantics, pragmatics and discourse effects of 'but' and 'although'. In Breeze, R. and I. Olza (Eds), *Evaluation in Media Discourse: Rhetoric and Intercultural Pragmatics*. Bern: Peter Lang.

Gómez González, M. Á., Ruiz de Mendoza Ibáñez, F. & Gonzálvez García, F. (Eds.). (2014). *Theory and Practice in Functional-Cognitive Space*. Amsterdam: John Benjamins.

Gómez González, M. Á., & Taboada, M. (2005). Coherence Relations in (Functional) Discourse Grammar. In J. L. Mackenzie, & M. Á. Gómez González (Eds.), *Studies in Functional Discourse Grammar* (pp. 227-259). Bern: Peter Lang.

González, M. (2005). Pragmatic markers and discourse coherence relations in English and Catalan oral narrative. *Discourse Studies* 77(1), 53-86.

Halliday, M., & Hasan, R. (1976). *Cohesion in English.* London: Longman.

Izutsu, M. N. (2008). Contrast, concessive and corrective: Toward a comprehensive study of opposition relations. *Journal of Pragmatics* 40(4), 646-675.

Lastres López, C. (2015). *If-clauses in English and their Spanish and French equivalents: A contrastive corpus-based study.* Santiago de Compostela. Unpublished dissertation.

Lastres López, C. (2016). Conditionals across languages: A corpus-based study of *if*-clauses in English and their Spanish and French equivalents. *Paper given at the 3rd International Conference on Contrastive Linguistics. Various Dimensions of Contrastive Studies*. Katowice, Poland, 24-25 October 2016.

Levy, R. & T. F. Jaeger (2010). Speakers optimize information density through syntactic reduction. *Proceedings of the 19th International Conference on Neural Information Processing Systems*, (pp. 849-856).

Mann, W., & Thompson, S. (1988). Rhetorical Structure Theory: Toward a functional theory of text organization. *Text* 8(3), 243-281.

Prasad, R., Dinesh, N., Lee, A., Miltsakaki, E., Robaldo, L., Joshi, A. & Webber, B. (2008). The Penn Discourse Treebank 2.0. *Proceedings of the 6th International Conference on Language Resources and Evaluation* (pp. 2961-2968).

Romero-Trillo, J. (2012). Pragmatic Markers. In *Encyclopaedia of Applied Linguistics* (pp. 4522-4528). Oxford: Blackwell-Wiley.

Ruiz de Mendoza Ibáñez, F., & Gómez González, M. Á. (2014). Constructing discourse and discourse constructions. In M. Á. Gómez González, F. Ruiz de Mendoza Ibáñez, & F. Gonzálvez García (Eds.), *Theory and Practice in Functional-Cognitive Space* (pp. 295-313). Amsterdam: John Benjamins.

Sanders, T., & Sweetser, E. (Eds.). (2009). *Causal Categories in Discourse and Cognition*. Berlin: Mouton de Gruyter.

Schriffrin, D. (1988). *Discourse Markers*. Cambridge: Cambridge University Press.

Siegel, M. (2006). Biscuit Conditionals: Quantification Over Potential Literal Acts. Linguistics and Philosophy, 29(2), 167-203.

Taboada, M. (2004). Building Coherence and Cohesion: Task-Oriented Dialogue in English and Spanish. Amsterdam: John Benjamins.

Taboada, M. (2006). Discourse Markers as Signals (or Not) of Rhetorical Relations. *Journal of Pragmatics*, 38(4), 567-592.

Taboada, M., & Gómez-González, M. Á. (2012). Discourse markers and coherence relations: comparison across markers, languages and modalities. *Linguistics and the Human Sciences*, 6, 17-41.

Taboada, M., & Mann, W. C. (2006). Rhetorical Structure Theory: Looking Back and Moving Ahead. *Discourse Studies* 8(3), 423-459.

Van der Auwera, J. (Ed.). (1998). *Adverbial Constructions in the Languages of Europe*. Berlin: Mouton de Gruyter.

Discourse relations across discourse genres: Degrees of overtness in argumentative and narrative texts

Anita Fetzer & Robert M. Maier

(University of Augsburg)

This paper examines the linguistic realisation of discourse relations (DRs) in written English argumentative and narrative discourse. It presents the results of an analysis of 9 editorials from *The Guardian* (4,826 words) and 10 personal narratives from British university students (4,551 words). The methodological framework integrates the Systemic Functional Grammar (SFG) concept of multiple themes with definitions and defining conditions of DRs from Segmented-Discourse-Representation (SDRT) (Asher and Lascarides 2003). It assumes that the linguistic realisations of DRs are not uniform, but vary systematically, based not only on their semantics and "the stage at which it [the linguistic realisation of a DR] occurs" (Grice 1975: 45) in discourse, but also on the delimiting frame of discourse genre, which is seen as a kind of blueprint in accordance with which DRs a realised. Thus, a distinction is made between implicit – merely encoded – DRs and overt – encoded and additionally signalled – DRs.

Continuation is defined as p1 and p2 sharing a common topic, *Narration* as a particularization of *Continuation* that requires the additional accommodation of temporal sequentiality with the temporal order of the events matching their textual order, and *Contrast* as semantic dissimilarity between p1 and p2. *Elaboration* is defined as mereological topic specification, *Explanation* as providing reason for events with temporal consequence, and *Comment* as p1 selecting p2 as topic. The defining conditions of DRs can be encoded in coherence strands (Givón 1993), i.e. topic continuity, tense and aspectual coherence and lexical coherence, and they can be signalled with discourse connectives (DCs), metacomments and non-congruently configured theme zones (NCCTZs). Depending on the number of signals (DCs, metacomments, NCCTZs), DRs can be realized overtly – utilising one signal – or more overtly – utilising more signals.

Excerpt (1) from a personal narrative illustrates a continuative DR holding between (#11) and (#12), signalled with the DC 'and', with a common topic from a preceding discourse unit referred to anaphorically ('*that*'), and *Contrast* holding between (#11) and (#13), signalled with the DC '**but**'. Both DRs are realised overtly:

(1) [(#9) that I'm not just angry (#10) but concurrently irate] (#11) I know it's bad to feel like *that* (#12) **and** that it's not a particularly attractive quality in a person, (#13) **but** I genuinely can't help it. (...)

The overall degree of overtness was 59.4% overt realisations for editorials, and 69.9% for narratives. Further analysis finds a significantly lower incidence of overt realisations of DRs in editorials (χ^2=13.948, *p*<.01). While *Contrast* is realised overtly throughout the data with varying degrees of overtness, genre-preferential degrees of overtness, ranging from implicit to overt, are discovered for

Continuation (26.9% overt for editorials; 52.2% for narratives), *Explanation* (37.5% for editorials; 100% for narratives)*, Elaboration* (76.9% for editorials; 72.1% for narratives) and *Comment* (14.8% for editorials; 75% for narratives), while *Contrast* is realised with varying degrees of overtness throughout both genres. Given identical semantics for each DR, some but not all DRs expose clear differences in terms of the overtness of their realisation, supporting the assumption of a distinctive impact of discourse genre.

References

Asher, N. & Lascarides, A. (2003). *Logics of conversation*. Cambridge: Cambridge University Press.

Givón, T. (1993). *English grammar. A function-based introduction* (2 vols), Amsterdam: John Benjamins.

Grice H.P. (1975). Logic and conversation." In *Syntax and semantics. Vol. III*, ed. by Peter Cole and Jerry L. Morgan, 41-58. New York: Academic Press.

Halliday, M.A.K. (1994). *Introduction to functional grammar*, 2nd ed., London: Arnold.

Maier, R.M., Hofmockel, C. & Fetzer, A. (2016). The negotiation of discourse relations in context: Co-constructing degrees of overtness. *Intercultural Pragmatics, 13*(1), 71-105.

Concessive patterns in online written reviews

María de los Ángeles Gómez González, Susana María Doval Suárez, & Elsa González Álvarez

(University of Santiago de Compostela)

Concession has been frequently characterised on lexico-structural grounds, mostly by addressing the "established" concessive subordinators, either conjunctions (e.g. (*al*)*though*, *even though,* etc.) or prepositions (e.g. *despite*, *notwithstanding, in spite of*), but also considering other markers that similarly express concessive meaning such as some adverbial items (e.g. *however*, *yet, nevertheless*) or specific parenthetical adverbial expressions (e.g. *sure enough*, *to be sure*) (Lakoff 1971; Quirk *et al.* 1985; König 1994; Crevels 2000; Izutsu 2008).

Nevertheless, strictly semantic-syntactic analyses entail a number of problems, notably the fact that concession, like any other discourse relation, may lack explicit linguistic cues, as well as the issue of multifunctionality. This suggests that connectors traditionally excluded from the concessive category may encode concessive meaning much in the same way as widely established concessive markers may express meanings other than concession. In order to circumvent such problems, this study integrates lexico-structural criteria into the "interactional" model of concession (Couper-Kuhlen & Thompson 2000; Barth-Weingarten 2003; Gómez González 2013, 2017). In this model what is crucial to recognising a concessive pattern is not the presence of certain explicit connectives. Rather the key recognition criterion is the action of "conceding" in a specific discourse context, that is, the expression of the acknowledgement of a claim (or expectation) in conjunction with a counter-claim (or counter-expectation), and the concessive schemas that are created thereby. Within this framework, we uncover the different concessive schemas triggered by seven concessive markers, *but*, *although*, (*even*) *though*, *however, yet* and *nevertheless,* noting their relative frequency, position and function in macro- and micro-level rhetorical patterns (Mann & Thompson 1988, 1992; Amossy 2005; Taboada & Gómez González 2012). These markers have been chosen on the grounds that they either have been invoked as core markers of concession but demand a more fine-grained categorization (*although*, (*even)*

though, *however, yet* and *nevertheless*), or otherwise have been underexplored or altogether discarded from the category (*but*).

The study is based on the analysis of 100 reviews (62,096 words) extracted from the *Simon Fraser University review corpus*. The review genre has been selected assuming that it is an instance of evaluative argumentative discourse, in which the persuasive effect of concession has been found to most likely occur (König 1988: 145; Biber *et al.* 1999: 825). Among other things, our text counts indicate the following frequency ranking: *but > although > however > yet > even though > though > nevertheless*. Furthermore, it is shown that concessive patterns not only play a fundamental role in the elaboration of argumentations (Grote *et al.* 1997), but also contribute to constructing the evaluative dimension of written reviews by means of their polarity features (Trvanac & Taboada 2012) in combination with their values in the attitude-engagement Appraisal divide (Martin & White 2005). In particular, attention is paid to the attitude values expressed (Affect, Judgement or Appreciation), as well as to the voices to whom values are attributed (monoglossic or heteroglossic) and their degree of commitment to the appraisal encoded (Disclaim, Proclaim, Entertain and Attribute).

References

Amossy, R. 2005. The argumentative dimension of discourse. In F. van Eemeren and P. Houtlosser (ed.) *Argumentation in practice*. Amsterdam / Philadelphia: John Benjamins. 87-98.

Barth-Weingarten, D. 2003. *Concession in spoken English. On the realization of a discourse-pragmatic relation*. Tübingen: Gunter Narr.

Biber, D., Johansson, S., Leech, G., Conrad, S. and E. Finegan 1999. *Longman Grammar of Spoken and Written English*. London: Longman.

Couper-Kuhlen, E. and S. A. Thompson. 2000. Concessive patterns in conversation. In E. Couper-Kuhlen and B. Kortmann (eds.). *Cause, condition, concession, contrast. Cognitive and discourse perspectives.* Berlin: De Gruyter Mouton. 381-410.

Crevels, M. 2000. Concession. A typological study. PhD dissertation, University of Amsterdam.

Gómez-González, M. Á. 2013. Concessive relations as argumentation in English and Spanish. Plenary address at *Evaluation in media discourse: Rhetoric and intercultural Perspectives*. Navarra: University of Navarra, 27-28/5/2015.

Gómez González, M. Á. 2017. Concession in evaluative discourse: The semantics, pragmatics and discourse effects of 'but' and 'although'. In Breeze, R. and I. Olza (eds), *Evaluation in Media Discourse: European Perspectives*. Berne and New York: Peter Lang. 47-80.

Grote, B., N. Lenke and M. Stede. 1997. Marking concessions in English and German. *Discourse Processes* 24.1. 87-117.

Izutsu, M. N. 2008. Contrast, concessive, and corrective: Toward a comprehensive study of opposition relations. *Journal of Pragmatics* 40.4. 646-675.

König, E. 1994. Concessive clauses. In R. E. Asher (ed.) *The encyclopaedia of language and linguistics*. Oxford: Pergamon. 679-681.

König, E. 1988: Concessive connectives and concessive sentences: Cross-Linguistic regularities and pragmatic principles. In J. A. Hawkin (ed.) *Explaining Language Universals*. New York: Blackwell. 145-166.

Lakoff, R. T. 1971. *If*'s, *and*'s, *but*'s about conjunction. In Charles J. Fillmore and D. Terence Langendoen (eds.) *Studies in linguistic semantics*. New York: Holt, Rinehart and Winston. 114-149.

Mann, W. C. and S. A. Thompson. 1988. Rhetorical Structure Theory: Toward a functional theory of text organization. *Text* 8.1. 243-281.

Mann, W. C. and S. A. Thompson. 1992. Relational Discourse Structure: A Comparison of Approaches to Structuring Text by "Contrast". In H. Shin Ja J. and W. R. Merrifield (eds.)

Language in context: Essays for Robert E. Longacre. Summer Institute of Linguistics and The University of Texas at Arlington Publications in Linguistics, Publ. 107. Dallas, Summer Institute of Linguistics. 19-45.

Martin, J. R. and P. R. R. White. 2005. *Language of evaluation: Appraisal in English*. Palgrave Macmillan.

Quirk, R., S. Greenbaum, G. Leech and J. Svartvik. 1985. *A comprehensive grammar of the English language*. London: Longman.

Rudolph, E. 1996. *Contrast. Adversative and concessive expressions on sentence and text level*. Berlin: de Gruyter.

Taboada, M. and M. Á. Gómez González. 2012. Discourse markers and coherence relations: Comparison across markers, languages and modalities. *Linguistics and the Human Sciences*, 6.1/3, 17-41.

Trvanac, R. and M. Taboada. 2012. The contribution of non-veridical rhetorical relations to evaluation in discourse. *Language Sciences* 34/3, 301-318.

Maria Silvano, António Leal, & Fátima Oliveira
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Cognitive operations in discourse: toward a unifying account of meaning construction across descriptive levels

Francisco J. Ruiz de Mendoza & M. Sandra Peña
(University of La Rioja)

Ever since the distinction between cohesion and coherence became popular, following Halliday and Hasan (1976), the study of discourse connectivity has been almost uniquely focused on textual organization as a largely independent phenomenon. However, we find that discourse connectivity, including discourse relations (Mann and Thompson 1988), whether explicitly signaled or not (Taboada 2006), is sensitive to the principles of cognitive modeling, like other levels of linguistic description. Cognitive modeling is based on the activity of (representational) cognitive operations on cognitive models. This understanding of cognitive modeling is a development, consistent with empirical findings in cognitive psychology (Gibbs 2006), of Lakoff's (1987) seminal ideas on (idealized) cognitive models, i.e. conceptual constructs that capture our beliefs and perceptions about the world. Ruiz de Mendoza and Galera (2014) distinguish two basic taxonomic criteria to account for cognitive models: their situational or non-situational character; their level of abstraction and/or grounding in experience. Ruiz de Mendoza and Gómez (2014) further note that relational meaning, which has a crucial role in discourse, takes the form of logical, temporal, and conceptual relations between high-level non-situational cognitive models. Such relational models are the groundwork for the activity of cognitive operations attested at other descriptive levels. For example, domain expansion operations have been associated with the derivation of implicatures and of illocutionary meaning on the basis of, respectively, low and high-level situational cognitive models (cf. Ruiz de Mendoza & Galera 2014). At discourse level, domain expansion combines with a parameterization operation in anaphora, as in *I told you so*, where *so* stands for a broader schematic predication roughly paraphrasable as 'exactly the

same as has been stated before', which is then parameterized into a more specific one, e.g. 'that you would lose your money'. Parameterization operations are also found at other levels of linguistic description: lexical (*I had my hair done* 'fixed'), predicational (*Does he smell?* 'Does he smell bad?'), and illocutionary (*I'm thirsty* 'Give me some water'). At discourse level, it underlies relations such as specification (e.g. *Let me tell you something; it's over*), exemplification (e.g. *Some of them were fired; for example, Mary*), evidentialization (e.g. *The threat continues, as evidenced by recent attacks*), time (e.g. *Where does he go after he leaves the bar?*), and location (e.g. *I found it where I thought it would be*). Echoing is another ubiquitous operation. At the predicational level, it underlies reported speech; at the implicational level, combined with contrast, it gives rise to irony (e.g. *She's an angel* echoes someone's previous words while clashing with reality); at the illocutionary level echoing underlies the meaning implications of the *Don't You X* construction, where X repeats what someone said before (e.g. *Don't "daddy" me!*); in discourse, it is found in paraphrases or restatements (e.g. *X, in other words, Y*). We discuss the workings of these and other cognitive operations in discourse, among them, contrast and saturation. We also compare the meaning effects of the same operations across descriptive levels. The resulting account integrates discourse connectivity into a broader framework of meaning construction.

References

Gibbs Jr., R. W. (2006). *Embodiment and Cognitive Science*. New York: Cambridge University Press.

Halliday, M. A. K., & Hasan, R. (1976). *Cohesion in English*. London: Longman

Lakoff, G. (1987). *Women, Fire, and Dangerous Things: What categories reveal about the mind*. Chicago: University of Chicago.

Mann, W., & Thompson, S. (1988). Rhetorical Structure Theory: Toward a functional theory of text organization. *Text* 8(3), 243-281.

Ruiz de Mendoza, F., & Galera, A. (2014). *Cognitive Modeling. A Linguistic Perspective*. Amsterdam: John Benjamins.

Ruiz de Mendoza Ibáñez, F., & Gómez González, M. Á. (2014). Constructing discourse and discourse constructions. In M. Á. Gómez González, F. Ruiz de Mendoza Ibáñez, & F. Gonzálvez García (Eds.), *Theory and Practice in Functional-Cognitive Space* (pp. 295-313). Amsterdam: John Benjamins.

Taboada, M. (2006) Discourse markers as signals (or not) of rhetorical relations. *Journal of Pragmatics* 38, 567–592.

Coherence relations and connectives: On cognitive categories, cross-linguistic comparison and discourse annotation

Jacqueline Evers-Vermeul & Ted J.M. Sanders
(Utrecht University)

Understanding a discourse means we infer coherence relations between utterances, such as *Cause-Consequence*, *Temporal Sequence* or *Contrast*. Languages have specific devices to express such relations: Connectives like *because*, *therefore* and *however*, and lexical cue phrases like *As a result*, and *The problem is*.

We will outline a Cognitive approach to Coherence relations (CCR) and show how this is corroborated with empirical research: cross-linguistic analyses of connective use, acquisition data and results from studies on discourse processing and representation.

For instance, languages of the world provide their speakers with means to indicate causal relationships. Causal relations can be expressed by connectives and cue phrases, such as *because*, *since*, *so* and *As a result.* Striving for converging evidence, we may ask: What is the system behind the use of such connectives in languages like English, French, Dutch and German, or Mandarin Chinese? How can we describe these systems in a cognitively plausible way? How do children acquire such connective systems? And what is the role of these causal relations and connectives in discourse processing? Based on the results, we are able to identify salient categorizing principles.

Finally, we will discuss the implications of cognitive categories for discourse annotation. In recent years, we have seen how corpora of language use are annotated at the level of coherence relations. Excellent but different annotation systems exist, such as the Penn Discourse Treebank (PDTB) and Rhetorical Structure Theory (RST).The question is: are cognitive insights useful for such discourse annotation systems? We will argue that our approach identifies unifying dimensions, will lead to more systematicity and is likely to improve existing relation definitions.

Bringing together discourse relations and grammaticalization: The case of the family of "lo que se dice XPCOMP" constructions in Spanish

Francisco Gonzálvez-García
(University of Almería)

Drawing on naturally-occurring data from the Corpus del Español del Siglo XXI and from the Corpus del Español: Web/Dialects, this study offers a qualitative and quantitative constructionist, usage-based account (see Hoffmann & Trousdale 2013, Butler & Gonzálvez-García 2014) of the most salient semantico-pragmatic and discourse-functional properties of the "lo que se dice XPCOMP" sequence in present-day Spanish, as in (1)-(3):

(1) Calderón de la Barca no es **lo que se dice** un autor de moda **(emphasizer subjunct; 'really')**
     'Calderón de la Barca is not what you may call a fashionable writer'
(2) Guapo, **lo que se dice** guapo, no es **(focusing subjunct; 'just')**
     'He's not handsome handsome'
(3) En Westminster en 1863 nació uno de sus hijos, John, y un año más tarde, en Belfast, otro, de nombre Archibald. Vamos, **lo que se dice** "mojando aquí y allá" ¿no? jajaja **(summative conjunct; 'in short')**
     'In Westminster, in 1863, John, one of his sons was born, and a year later, in Belfast, a second one, named Archibald. In short, [he] was getting laid here and there, wasn't he? Hahaha.

Only instances of "lo que se dice" followed by an obligatory secondary predicate (i.e. the XPCOMP) and lacking a felicitous active counterpart were computed for analysis. In the light of 650 tokens of the target construction manually filtered as well as data elicited from a pool of 30 native speakers from Spain, the "lo que se dice XPCOMP" string is shown to be a semi-fixed prefab (Bybee 2013), which serves two major semantico-pragmatic functions: (i) an emphasizer/focusing subjunct

(often with contrastive focus reduplication, see Ghomeshi et al. 2004) and, less frequently, (ii) a summative conjunct (Quirk et al. 1985, Fuentes 1991, 1993, Martín Zorraquino & Portolés Lázaro 1999). In line with Cognitive Construction Grammar (Goldberg 2006), it is argued that (1)-(3) represent three different, yet related, well-entrenched constructions (i.e. form-function pairings). A non-compositional aspect of their function is the expression of subjectivity (i.e. the expression of the speaker's evidence for an epistemic evaluation) (cf. Lyons 1982, Nuyts 2001a, 2001b), and the addition of a intersubjective dimension (i.e. the expression of the addressee's self image) (Traugott 2010, Cuyckens et al. 2010, Cornillie 2010, Hennemann 2016) in interactional contexts. These functions arise at the expense of a weakening of part of its original meaning as a result of grammaticalization (Traugott 1982, 1995), with overlapping instances of both uses, as in (4):

(4)   Y, al final de cuentas, emociona con recursos nobles. **Lo que se dice**, todo un milagro.
        'And, at the end of the day, it moves you with noble resources. Certainly/in sum, a miracle'.

Discoursal relations at the level of the proposition (i.e. syntax via pragmatic strenthening in discourse giving rise to syntax with a different function) as well as at a textual level (i.e. from the proposition to the text and to discourse) (Traugott 1995: 15, Company 2006, 2008: 205-206, inter alios) are concluded to be of prime importance for a fine-grained usage-based account of the behaviour of this family of constructions.

References

Bybee, J. (2013). Usage-based theory and exemplar representation. In T. Hoffman & G. Trousdale (Eds.), *The Oxford Handbook of Construction Grammar*. Oxford: OUP. 49-69.

Butler, C. S. & Gonzálvez-García, F. (2014). *Exploring Functional-Cognitive Space*. Amsterdam: John Benjamins.

Company Company, C. (2006). Zero in syntax, ten in pragmatics or subjectification as syntactic cancellation. In Athanasiadou, A., C. Canakis, & B. Cornillie, (Eds.), *Subjectification: Various Paths to Subjectivity* (Cognitive Linguistics Research 31). Berlin: Mouton de Gruyter. 375-398.

Company Company, C. (2008). The directionality of grammaticalization in Spanish. *Journal Historical Pragmatics*, 9: 200-224.

Cornillie, B. (2010). On conceptual semantics and discourse functions: The case of Spanish modal adverbs in informal conversation. *Review of Cognitive Linguistics*, 8(2): 300-320.

Cuyckens, H., K. Davidse, & L. Vandelanotte. (2010). Introduction. In K. Davidse, L. Vandelanotte, & H. Cuyckens (eds.), *Subjectification, Intersubjectification and Grammaticalization*. Berlin: Mouton de Gruyter. 1-26.

Fuentes Rodríguez, C. (1991). Adverbios de modalidad. *Verba*, 18: 275-321.

Fuentes Rodríguez, C. (1993). Conclusivos y reformulativos. *Verba*, 20: 171-198.

Ghomeshi, J., R. Jackendoff, N. Rosen, & K. Russell (2004). Contrastive focus reduplication in English (The salad-salad paper). *Natural Language and Linguistic Theory*, 22: 307-357.

Goldberg, A. E. (2006). *Constructions at Work: The Nature of Generalization in Language*. Oxford: Oxford University Press.

Hennemann, A. (2016). A cognitive-constructionist approach to Spanish *creo Ø* and *creo yo* '[I] think'. *Folia Linguistica*, 50(2): 449-474.

Hoffmann, T. & G. Trousdale (2013). (Eds.), *The Oxford Handbook of Construction Grammar*. Oxford: OUP.

Lyons, J. (1982). Deixis and Subjectivity: Loquor, ergo sum? In R. J. Jarvella, & W. Klein (eds.), *Speech, Place and Action: Studies in Deixis and Related Topics*. New York: Wiley. 101-124.

Nuyts, J. (2001a). Subjectivity as an evidential dimensión in epistemic modal expressions. *Journal of Pragmatics,* 33(3): 383-400.

Nuyts, J. (2001b). *Epistemic Modality, Language, and Conceptualization: A Cognitive-Pragmatic Perspective*. Amsterdam: John Benjamins.

Martín Zorraquino, M. A. & J. Portolés Lázaro (1999). Los marcadores del discurso. In Bosque, Ignacio & Violeta Demonte (eds.) *Gramática Descriptiva de la Lengua Española. Volumen 3. (Entre la oración y el discurso/Morfología).* Madrid: Espasa Calpe. 4051-4213.

Quirk, R., S. Greenbaum, G. Leech, & J. Svartvik. (1985). *A Comprehensive Grammar of the English Language*. London: Longman.

Traugott, E.C. (1982). From propositional to textual and expressive meanings: Some semantic-pragmatic aspects of grammaticalization. In P. L. Winfred & Y. Malkiel (eds.), *Perspectives on Historical Linguistics*. Amsterdam: John Benjamins. 245-271.

Traugott, E.C. (1995). The role of the development of discourse markers in a theory of grammaticalization. Paper presented at ICHL XII, Manchester.

Traugott, E.C. (2010). (Inter)subjectivity and (inter)subjectification: A reassessment. In K. Davidse, L. Vandelanotte, & H. Cuyckens (eds.), *Subjectification, Intersubjectification and Grammaticalization*. Berlin: Mouton de Gruyter. 29-74.

The *X anyway Y* and *X anyhow Y* constructions across the complementary-contrastive constructional family

Aneider Iza Erviti & Lorena Pérez-Hernández

(University of La Rioja)

Complementary-contrastive constructions form a family of discourse constructions which show a relation between two elements in the world that are opposites but not exclusive of each other. Constructions identified within this family include *X all the same Y; X although Y; X anyhow Y;* and *X anyway Y*, among many others.

Following Langacker's (1987; 1999) distinctions among *meaning base, profile* and *active zone*, and making use of the COCA, WebCorp and BNC corpora, this study reveals that the complementary-contrastive meaning base can be profiled very differently depending on the construction selected to characterize that meaning. This finding has allowed us to further classify complementary-contrastive constructions into *Neutral complementary-contrastive constructions, Concessive constructions, Correcting constructions, Topic changing constructions, Topic avoiding constructions,* and *Refusal-apology constructions.*

In turn, the constructions *X anyway Y* and *X anyhow Y* have generally been treated as fully equivalent in common lexicographic practice, which is understandable since according to corpus data, in most cases the constructions *X anyway Y* and *X anyhow Y* can be used indistinctively. However, both constructions differ in important matters that so far have not been taken into account: First, *anyhow* literally encodes the manner of action, while *anyway* is based on the experiential conflation between a goal and the path followed to reach that goal, as dictated by the underlying metaphor MEANS TO ACHIEVE A GOAL ARE PATHS TO ACHIEVE A DESTINATION (Lakoff, 1993). Second, the construction *X anyhow Y* encodes a careless manner of action meaning, while the configuration *X anyway Y* implies that the manner in which something is done/achieved should be disregarded.

These important facts explain why the construction *X anyhow Y* does not form part of the subgroup of refusal/apology constructions while *X anyway Y* does, and therefore cannot be used to decline an offer, as in *No, I'll put them in this, why use up your carrier bags **anyway/*anyhow***. The reason behind this is that unlike *anyway*, *anyhow* needs the rejection to be motivated by a particular reason. If this reason is not explicitly presented, *anyhow* implies a careless manner of action or something being

in a disorderly state, as in the example above, where by using *anyhow* the speaker could refer to a bad use of the listener's carrier bags, not to the fact that he would not need to use them. In this context, *anyhow* would not have discursive value, and could be replaced by *any way* (the two-word phrase meaning "in any manner"), and not by *anyway,* as in *Finish the job any way you choose.*

References

Lakoff, G. 1993. "The contemporary theory of metaphor". In A. Ortony (Ed.), *Metaphor and Thought.* 2nd ed. (pp. 202–251). Cambridge: Cambridge University Press.

Langacker, R. W. 1987. *Foundations of Cognitive Grammar. Vol. 1: Theoretical Prerequisites; Vol. 2: Descriptive Application.* Stanford, CA: Stanford University Press.

Langacker, R. W. 1999. *Grammar and Conceptualization*. Berlin & New York: Mouton de Gruyter.

Predictability and Arbitrariness in Discourse Markers

Konrad Szcześniak

(University of Silesia)

I would like to focus on iconicity and arbitrariness in discourse markers, with special emphasis on grams derived out of the verb *want*. These (and constructions in general) are assumed to be unpredictable in constructionist approaches, following the constructionist conception of constructions defined by Goldberg (2006: 5) as

> "learned pairings of form with semantic or discourse function (…) Any linguistic pattern is recognized as a construction as long as some aspect of its form or function is not strictly predictable…"

I have two objectives: First, to show that on the continuum between predictability and arbitrariness (Goldberg 1996: 69), the motivation of many constructions (Szcześniak 2013, 2016) – including discourse markers – tends toward the predictability extreme, given striking cross-linguistic similarities in their form. Examples include *after all* markers, which often involve the meaning of 'end' or 'finality':

a. letzten **Endes** (German), **lop**pujen **lop**uksi (Finnish), **konec konc***ů* (Czech), w **końcu** (Polish), a**final** (de contas) (Portuguese), ao **final** (Galician)

b. **after** all (English), **après** tout (French), **después** de todo (Spanish)

Secondly, I wish to demonstrate that motivation should play a role more important than is admitted in constructionist analyses, where it seems to be considered an accidental feature. It is not invoked to account for learning (assumed to occur "on the basis of the input and general cognitive mechanisms." Goldberg 2006: 12). Discourse markers retain a degree of iconicity relevant to learning and use.

My insistence on predictability may be a counterintuitive idea, given that grammaticalization is not an entirely predictable process. Although there are clear cross-linguistic patterns, in the course of grammaticalization, a lexical item can give rise to a variety of closed-class forms. For example, the verb *want* has been shown to evolve into future (Aijmer 1985), proximative (Heine 1999), avertive (Kuteva 1998) markers. This list can be extended by inclusion of *want*-based concessive markers in Portuguese (***quer***… ***quer***…), Spanish (*cual***quiera** *(que sea)*), Latin (*quam***vis***), or Polish (***choć***).

This diversity notwithstanding, I will attempt to demonstrate that the different grammatical functions that *want* has acquired do not come from random chance, but are a product of specific contexts and uses that put in motion further grammaticalization developments. That is, the future function can be traced back to inferences about immediate future associated with *want* in first person singular uses. For example, in the case of English *will*, originally from OE *wyllan* 'want', it is possible to reinterpret an utterance like *I want to eat* as meaning 'I eat next'. On the other hand, concessive uses of *want* originate from second person uses accompanied by additional clauses, used roughly according to the formula 'you want X, still Y is the case'. Such uses leave little room for interpretations other than the concessive, thus predetermining grammaticalization paths they will take.

References

Aijmer, K. (1985) The semantic development of will. In Fisiak, J. (ed.). *Historical semantics, historical word formation*. (11-21). Berlin: Mouton de Gruyter.

Goldberg, A. E. (1995). *Constructions: A Construction Grammar approach to argument structure.* Chicago: The University of Chicago Press.

Goldberg, A. E. (2006). *Constructions at work: The nature of generalization in language.* Oxford: Oxford University Press.

Heine B. (1999) The ‖Ani: Grammatical notes and texts. *Khoisan Forum* (Cologne) 11. University of Cologne.

Kuteva, T. (1998) On identifying an evasive gram: Action narrowly averted. *Studies in Language* 22,1: 113-160.

Szcześniak, K. (2013) You can't cry your way to candy: Motion events and paths in the *x's way* construction. *Cognitive Linguistics 24*(1), 159-194.

Szcześniak, K. (2016) Effect Before Cause. How Content Affects Form. *Cognitive Semantics* 2(2). 190-212.

The encoding of *irrelevance* in discourse: Evidence from Italian and Sicilian

Cristina Lo Baido & Caterina Mauri

(University of Bergamo & University of Bologna)

The aim of this paper is to examine the expression of irrelevance in discourse, based on data of spoken Italian and spoken Sicilian. By irrelevance we mean the fact that a given SoA is depicted as irrelevant, that is, its occurrence or non-occurrence leads to the same result.

We will argue that irrelevance can be conveyed through a variety of morphosyntactic strategies, ranging from discourse markers to connectives and verbal reduplication. In particular, we will focus on the connective *tanto* (ex. 1)) and on verbal reduplication (ex. 2) and 3)). Based on the occurrences of the LIP Corpus of Spoken Italian, we will describe *tanto* (*tantu* in Sicilian) as introducing the motivation (q) whereby a specific SoA (p) is irrelevant in a given context (Haspelmath 1997: 81; Horn 2000):

1)   It. *Non comprarlo, **tanto** ce l'ho a casa*
        [Do not buy it]$_p$, **TANTO** [I have it at home]$_q$
        = it is not necessary/relevant to buy it, ***because I have it at home***
        □→[p, tanto q] = *p* or *non-p* is irrelevant, because of *q*

In other words, q introduces the motivation for the irrelevance of p, whereby p or not-p would lead to the same result (R). *Tanto* also developed into a discourse marker (Schiffrin 1988) and it is attested as conveying irrelevance as such - not motivating it. In 2) the reasons motivating the irrelevance have to be inferred from context; in other words, the speaker is simply **asserting** the irrelevance of *p:*

2)   It. [*Non esco più*]$_p$, ***tanto****...*
        I don't go out any more, **TANTO**
        = It is irrelevant/useless to go out

We will show that the notion of irrelevance may be also encoded through highly grammatical (and constructional) devices, such as reduplicative patterns. Example 3) shows the use of verbal reduplication in Italian:

3)   It. *Non preoccuparti, quando **ARRIVI ARRIVI***
        Lit. Do not worry, when you arrive arrive
        = do not worry, because whenever you arrive, the result is the same / the exact time of your arrival is irrelevant

In Sicilian the reduplicative pattern conveying irrelevance is highly widespread and extended to subordination (Leone 1995; Gomez and van der Voort 2014), as in 3):

3)   Sic. *Quannu*   ***VENI***   ***VENI,***   *sugnu*   *rintra*
        when   come:prs.2sg   come:prs.2sg   be:prs.1sg   inside
        Lit. when you come come, I am inside (at home)
        = the exact time of your arrival is irrelevant, because I am at home

After providing a detailed semantic and pragmatic analysis of irrelevance, we will present a corpus-based study that will also address the diachrony of the irrelevance marker *tanto*. By adopting a functional and constructional perspective, we will argue that discourse relations may be encoded by constructions displaying different morphosyntactic properties and different degrees of compositionality, both within and across languages.

References

Gomez, Gale Goodwin, and Hein van der Voort. 2014. eds. *Reduplication in Indigenous Languages of South America*. Brill, 2014.

Haspelmath, Martin. 1997. *Indefinite pronouns*. Oxford: Clarendon Press.

Horn, Laurence. 2000. "Any and (-) ever: Free choice and free relatives." *Proceedings of the 15th annual conference of the Israeli association for theoretical linguistics*.

Leone, Alfonso. 1995. *Profilo di sintassi siciliana*. Centro di Studi Filologici e Linguistici Siciliani; Istituto di Filologia e Linguistica, Facoltà di Lettere e Filosofia.

Schiffrin, Deborah. 1988. *Discourse markers*. Cambridge: CUP.

Corpora

Lessico di frequenza dell'italiano parlato (Lip) available at http://badip.uni-graz.at

Bilingual annotation of discourse markers in English and Spanish:
A corpus-based translation study

Estefanía Avilés & Julia Lavid

The study of discourse markers (DM) in the context of translation is crucial due to the idiomatic nature of these structures (Aijmer 2007, Beeching 2013]. In the field of Machine Translation (MT), and more precisely Statistical Machine Translation (SMT), recent work has pointed out the need for findings and studies that address divergences in DM usage in order to improve SMT output quality (see Steele 2015). Current SMT systems often focus on translating single sentences with clauses being treated in isolation, leading to a loss of contextual information, ignoring the fact that DMs are vital contextual links between discourse segments and that they are often translated in ways that differ from how they are used in the source language (Hardmeier, 2012; Meyer and Popescu-Belis, 2012). In addition, although an extensive literature has already reported language-specific traits of these events (Fraser 1990, 1999; Beeching and Detges 2014; Fisher 2000; Ghezzi and Molinelli 2014, inter alia), there are no systematic studies which address their cross-language behavior in the context of translation between English and Spanish. The current study is a preliminary step in the context of a larger project aimed at the creation of a bilingual (English-Spanish) corpus annotated with DMs which might be useful for a number of linguistic and computational investigations. Focusing on elaborating DMs as a case study, the paper addresses the following research questions: what are the form-function equivalences between different subtypes of elaborating DMs in English and Spanish? Are there language-specific and/or genre specific uses of elaborating DMs in these two languages? The theoretical tools used are the classifications proposed in the Systemic-Functional approach (Halliday and Matthiessen 2004) for the English elaborating connectives, together with the sense hierarchy used in the Penn Discourse Treebank (PDTB) (Prasad et al. 2008), and the typologies on reformulation and exemplification markers proposed in the Spanish linguistic community (Casado Velarde 1991, Garcés Gómez 2005, Fuentes Rodriguez 1993, Cuenca 2001, Portolés & Martín Zorraquino *inter alia*). The data used is a sample of thirty parallel texts from different genres extracted from the MULTINOT Corpus (Lavid et al 2015). The methodology consists of the alignment of the source and the target texts and the bilingual annotation of the form-function correspondences of a list of elaborating DMs in English original texts and their translations into Spanish, examining their contexts of use and counting their distribution. The result is a specification of the paradigmatic correspondences between the English and the Spanish elaborating markers which will contribute to a better understanding of their cross-linguistic behaviour in different registers and genres.

References

Aijmer, K. (2007): Incorporating Corpora. (The Linguist and the Translator, Translating discourse particles: A case of complex translation, page 95–116. *Multilingual Matters*. Clevedon.

Beeching, K. (2013): A parallel corpus approach to investigating semantic change *, Advances in corpus-based contrastive linguistics*, pages 103–125. Studies in honour of Stig Johansson. John Benjamins, Amsterdam,

Beeching, K. and Ulrich Detges, editors (2014): Discourse Functions at the Left and Right Periphery. *Crosslinguistic Investigations of Language Use and Language Change*. Brill, 2014.

Fischer, K (2000): *From Cognitive Semantics to Lexical Pragmatics: The Functional Polysemy of Discourse Particles*. Mouton de Gruyter, Berlin/New York, 2000.

Fraser, B. (1990): An approach to discourse markers. *Journal of Pragmatics*, 14:383–395, 1990.

Fraser, B. (1999): What are discourse markers? *Journal of Pragmatics*, 31:931–952, 1999.

Ghezzi, C. and Piera Molinelli, ed. (2014): *Discourse and Pragmatic Markers from Latin to the Romance Languages*. Oxford Studies in Diachronic and Historical Linguistics 9. Oxford University Press, 2014.

Hardmeier, C. (2012) *Discourse in Statistical Machine Translation: A Survey and a Case Study*. Elanders Sverige, Sweden.

Halliday, Michael, and Matthiessen, M.I.M (2004): *Introduction to Functional Grammar*. Hodder Headline Group. London, Great Britain.

Portolés, J., MA Martín Zorraquino (1999), "Los marcadores del discurso", en Bosque, I. y Demonte, V. (dirs.), *Gramática descriptiva de la lengua española*, Madrid, Espasa Calpe, capítulo 63.

Lavid, Julia, Arús, Jorge, DeClerck, B and Hoste, Veronique (2015). Creation of a high-quality, register-diversified parallel corpus for linguistic and computational investigations. In *Current Work in Corpus Linguistics: Working with Traditionally- conceived Corpora and Beyond. Selected Papers from the 7th International Conference on Corpus Linguistics (CILC2015)*. Procedia - Social and Behavioral Sciences, Volume 198, 24 July 2015, pages 249–256.

Meyer, T. and Andrei Popescu-Belis (2012) Using sense-labelled discourse connectives for statistical machine translation. In: *EACL Joint Workshop on Exploiting Synergies between IR and MT, and Hybrid Approaches to MT* (ESIRMTHyTra), pages 129-138.

Steele, D. (2015): Improving the Translation of Discourse Markers for Chinese into English. *Proceedings of NAACL-HLT 2015 Student Research Workshop* (SRW), pages 110–117, Denver, Colorado, June 1, 2015. Association for Computational Linguistics.

On a little word „a" ['and, but'] and its coocurence with connectors in Slavic languages

Anna Kisiel
(KU Leuven)

In a Polish conjunction system one unit – *a* 'and, but' – stands out when it comes to its frequency, variation of usages and readiness to co-occur with connectives (see Tab.1.; Żabowska 2009). With 1 095 755 usages in National Corpus of Polish it is the second, after *i* 'and', most frequent Polish conjunction. It is also the one covering most types of usages. In literature there are 6 types of usages assigned to *a*: 1) connecting, 2) resultative, 3) opposition, 4) consent, 5) condition, 6) addition (Wajszczuk 1984, 1997).

There is also another feature specific for *a* that will be the point of interest in this paper. *A* is, by far, the conjunction most eagerly co-occuring with connectives, a group of meta-units with a very similar function to that of conjunctions but visibly different word order specification. Connectors require (like conjunctions) a pretext, ie. a preceding verbal context, but are not stabilized (unlike conjunctions) in the central position between the pretext and a second conjunct. While conjunctions are always at the absolute beginning of a second conjunct, connectors can also take a position within the second conjunct. Moreover, connectors, together with the second conjunct, do not have to directly neighbor the first conjunct. When it comes to their function, conjunctions relate two rhemas to each other (rhemas of both conjuncts), while connectors concentrate more on the relation between the conjuncts' themas.

Co-occurrence of units similar in meaning and function is always noteworthy (Fraser 2015). It has to be investigated whether in such coocurence a) both units keep their meanings as they are outside of

the coocurence, b) at least one has a specific meaning appearing only in the coocurence with the other, c) one unit drops its meaning becoming nothing more than a handy support for the second unit. Only a) can be recognized as a composition; the other two cases suggest lexicalisation of the coocuring units or grammaticalisation of one of them.

Co-occurrence of *a* and connectives will be discussed in more details from the perspective of lexical semantics and usage of thematic-rhematic theory with a special attention to:

A. in what types of *a*'s usages co-occurence with connectives is allowed and why are some connectives never approved in the conjunct after *a*,

B. if any of the co-occuring units modifies (or drops) its meaning, ie. whether the discussed co-occurences can be seen as a combination of two units having specific lexical meanings or rather as a new, lexicalized multiword unit

C. what the differences in the matter are between Polish *a* and *a* in other Slavic languages, such as Russian and Bulgarian.

The language material for analysis will be extracted from national corpora for all three Slavic languages, Polish-Russian-Bulgarian Parallel Corpus (Koseska-Toszewa&Roszko 2015) and supported by Polish-Russian Parallel Corpus. Translations will be examined in order to extract the rules for using *a* in translation of other meta-units as in the case of Pol. *zaś* 'while', for which one third of usages in PRPC gets Rus. *a* as a translational partner

1)   Pol. W sercu moim drzemie orzeł, w głowie **zaś** promieniuje gwiazda harmonii.
      Rus. В сердце моем дышит орел, **a** в голове сияет звезда гармонии. [PRPC]
      An eagle naps in my heart, while in my head radiates a star of harmony.

The contrastive aspect of the analysis will help to establish whether co-occurrence of *a* and connectors is language specific or shared between a language family.

References

Żabowska, Magdalena. 2009. Hierarchia wyrażeń metatekstowych. *Linguistica Copernicana* 2:2. 179-189.

Fraser, Bruce. 2015. The combining of Discourse Markers – A beginning. *Journal of Pragmatics* 86. 48-53.

Koseska-Toszewa, Violetta & Roszko, Roman. 2015. On Semantic Annotation in Clarin-PL Parallel Corpora. *Cognitive Studies* 15. 211-236.

Wajszczuk, Jadwiga. 1984. Metatekstowe "szwy" tekstu. Casus polski spójnik *a*. In L. Lönngren (ed.) *Polish Text Linguistics*. Uppsala. 53-75.

Wajszczuk, Jadwiga. 1997. *System znaczeń w obszarze spójników polskich*. Warszawa: Katedra Lingwistyki Formalnej.

Corpora

BNC: Bulgarian National Corpus http://search.dcl.bas.bg/
NCP: National Corpus of Polish (balanced version) http://www.nkjp.pl/
PRPC: Polish-Russian Parallel Corpus http://pol-ros.polon.uw.edu.pl/
RNC: Russian National Corpus http://www.ruscorpora.ru/

Geographical distance and functional similarity: The case of German *mal* and Mandarin *yíshià*

Ekkehard Koenig & Jingying Li
(FU Berlin/Uni Freiburg & Universität Freiburg)

The term 'discourse marker' is used both in a very broad sense and in a narrow sense. In its narrow use the term refers to the class of expressions marking discourse (rhetorical) relations between segments of text or of spoken interactions and thus subsumes the traditional classes of coordinating and subordinating conjunctions, as well as their adverbial counterparts or conjuncts (Mann & Thompson, 1988; Gómez González & Taboada, 2005). In its broad sense the term also includes a variety of other subclasses of expressions straddling the line between the lexicon and grammar, often called 'focus markers', 'modal particles', 'discourse particles', etc. (cf. Schiffrin, 1988; Ondera, 2011; Hilpert, 2011). Traditionally analyzed as 'modal particles', the expressions discussed in our paper are more easily subsumed by the broader use of the term.

Our paper pursues the following goals:

(i) to analyze a discourse marker in German (i.e. *mal*), both diachronically and synchronically, that has never received a coherent and convincing analysis so far – except for some interesting suggestions as made in Bublitz (2003) - and has no clear counterpart in neighboring languages such as English, Dutch and French.

(ii) to show that a highly similar pattern and target of grammaticalization can be found in Mandarin Chinese (i.e. *yíxià*).

(iii) generalizing from this case, we will briefly discuss the assumption that discourse markers in the narrow sense of the term (Engl. *if, because, although, therefore, however, moreover*, etc.) manifest striking similarities across European languages, in contrast to the highly language-specific rest categories, where occasional parallels and analogies seem to be due to general cognitive principles underlying grammaticalization.

German *mal* is the reduced version of *einmal*, i.e. of a construction combining the numeral 'one' with a noun originally denoting a salient local unit and later salient temporal units (occasions, frequency). The final stage of the development was a process of desemanticization of the frequency use from 'minimal frequency' to 'minimal effort'. The diagram in Figure 1 summarizes these stages of development for German *mal*. The sentences under (1) illustrate the individual stages of this development.

Interestingly enough, strikingly similar processes of grammaticalization leading to an analogous target can be identified in Mandarin, a languages totally unrelated to German, genetically or areally. The stages of these processes are summarized in Figure 2 and illustrative examples are provided under (2).

In the final part of our paper, we will briefly discuss the potential and limits of cross-linguistic comparisons of discourse markers. The difficulties and limits of comparative generalizations in the relevant domain even for closely related languages are evident in lexicographic endeavors such as König et al. (1990) and Mettrich et al. (2002). Large geographic distances may have to be covered in a search, before we find parallels and similarity in those subdomains of discourse markers that lie outside the boundaries of those marking rhetorical relations.

Our analysis is based on a rich collection of descriptive studies on the relevant expressions as well as on our intuitions as native speakers of German and Mandarin, respectively. Our main hypothesis is

that a coherent analysis of the expressions under study should be based on a reconstruction of their largely parallel historical developments and pervasive tendencies of semantic change.

Data

Mal 'salient local unit' > *Mal* 'salient temporal unit'
cardinal number + *mal* > frequency or time frame adverbial
einmal > *mal* (formal reduction)
'minimal frequency' > 'minimal effort'/'minimal commitment'

Figure 1

xià (local noun > temporal noun) > (verb) > (classifier)
yí (numeral 'one') + xià (classifier) > frequency/short duration
yíxià > xià (formal reduction)
'minimal frequency' > 'minimal time'/minimal effort'

Figure 2

(1)a. Brandmal 'memorial'; Muttermal 'birthmark';

b. Es war einmal 'once upon a time'; Einmal habe ich fünfmal getroffen. 'On one occasion   I hit the target five times'.

c. Ich habe ihn mal getroffen. 'I met him once.'

d. Komm mal sofort hierher. 'Come here immediately.'

(2)a. Shān xià chūn quán.

  'There is a stream on the foot of the mountain.'

b. Xiàng nà shítóu měng jī yíxià. néng bā

  '(He) hit the stone once fiercely.'

c. Nǐ guòlái (yí)xià.

  'Please come here.'

d. Nǐ néng bāng wǒ (yí)xià ma?

  'Can you help me (this once)?'

References

Bublitz, Wolfram 2003. "Nur ganz kurz mal. Abschwächungsintensivierung durch feste Muster mit *mal*." In: Held, G. ed. *Partikeln und Höflichkeit*. Frankfurt: Peter Lang, pp. 179-2010.

Gómez González, M. À & Taboada, M. 2005. "Coherence relations in (functional) discourse grammar". In: Mackenzie, J. L. & M. À. Gómez González (eds.) *Studies in Functional Discourse Grammar*. Bern: Lang, pp. 227-259.

Hilpert, Martin. 2011. Grammaticalization in Germanic languages". In: Narrog, H. & B. Heine (eds.). *The Oxford Handbook of Grammaticalization*. Oxford: OUP, pp. 708-718.

König, Ekkehard, Detlef Stark & Susanne Requardt (1990). Adverbien und Partikeln. Ein deutsch-englisches Wörterbuch. Tübingen: Stauffenburg.

Mann, W. & Sandra Thompson. 1988. « Rhetorical structure theory : Towards a functional theory of text organization." *Text* 8.3: 243-281.

Mettrich, René, Eugène Faucher & Gilbert Courdier. 2002. *Les invariable difficiles. Dictionnaire allemand-français des particules, connecteurs, interjections et auttres mots de la communications.* Nancy : Nouveaux cahiers d'allemand.

Ondera, Noriko O. 2011. "The grammaticalization of discourse markers". In: Narrog, Heiko & Bernd Heine (eds.). *The Oxford Handbook of Grammaticalization*. Oxford: OUP, pp. 614-624.

Schiffrin, Deborah. 1988. *Discourse Markers*. Cambridge: Cambridge University Press.

A contrastive study of strategies to express cognitive evidentiality in research papers

María Luisa Carrió-Pastor

(Universidad Politécnica de Valencia, Spain)

Academic journals reflect the social self-image of writers and their own perceptions of reality. In this sense, evidential markers show the way writers make valid their opinions and convince readers that the proposition is true as Aikhenwald (2004), Alonso Almeida (2015), Du Bois (2007) and Marín Arrese (2011, 2015) have shown in their studies. Also the study of metadiscourse strategies carried out by Hyland and Tse (2004), Hyland (2005a, 2005b), Gillaerts & Van de Velde (2010), Mur- Dueñas (2011), Carrió Pastor (2014), Hyland and Jiang (2016) and Jiang and Hyland (2016) have focused on evidential devices. Evidential devices show the encoding of an utterance by the indication of the "source of the information" contained in the proposition (Aikhenvald 2004: 3), i.e. "the kind of evidence a person has for making factual claims" (Anderson 1982: 273). The hypothesis of this paper is that academic writers that communicate in different languages (i.e. English and Spanish) use dissimilar evidential devices in different specific contexts. In this sense, the first objective of this study is to determine if there are differences in the use of cognitive attitude evidentials in scientific writing delivered in English and in Spanish using Marín Arrese's taxonomy (2011, 2015). The second objective is to identify if Spanish and English researchers use cognitive attitude evidential devices in a different way in the introduction, methodology, results, discussion and conclusion sections and the last objective is to contrast the data extracted from the analysis in the specific fields of linguistics, medicine and engineering. In order to meet these objectives, thirty research articles written by Spanish researchers and published in international journals were contrasted with thirty academic papers written by English researchers and also published in international journals. Evidential devices were extracted with a tool designed to tag rhetorical strategies (METOOL) and the data found were also checked manually to identify cognitive attitude devices. The results showed that there were differences in the use of cognitive attitude evidentials produced by writers with different linguistic backgrounds, although they share the knowledge of the specialist content and the academic way of expressing their thoughts. It was found out that cognitive attitude evidentials were used more frequently by English writers. The results, discussion and conclusion sections of the research papers were the parts in which Spanish and English writers used more cognitive attitude evidentials.

References

Aikhenwald, Alexandra. 2004. *Evidentiality*. Oxford: Oxford University Press.

Alonso-Almeida, Francisco. 2015. Sentential epistemic and evidential devices in Spanish and English texts on computing. In Juan Rafael Zamorano-Mansilla, Carmen Maíz, Elena Domínguez and María Victoria Martín de la Rosa (Eds.) *Thinking Modally*. Cambridge: Cambridge Scholars, 383- 408.

Anderson, Lloyd B. 1982. Evidentials, Paths of Change, and Mental Maps: Typologically regular Asymmetries. In Wallace Chafe & Johanna Nichols (eds.). *Evidentiality: The linguistic encoding of epistemology*. Norwood: Ablex, 273-312.

Carrió Pastor, María Luisa. 2014. Cross-cultural Variation in the Use of Modal Verbs in Academic English. *Sky, Journal of Linguistics*, 27: 153-166.

Du Bois, John W. 2007. The stance triangle. In Robert Englebretson (ed.), *Stancetaking in Discourse: Subjectivity in Interaction*. Amsterdam: Benjamins, 138–182.

Hyland, Ken 2005a. *Metadiscourse: Exploring Interaction in Writing*. London: Continuum.

Hyland, Ken and Feng (Kevin) Jiang. 2016. Change of attitude? A diachronic study of stance. *Written Communication*, 33/3: 251-274.

Hyland, Ken. & Tse, Polly. 2004. Metadiscourse in academic writing: a reappraisal. *Applied Linguistics* 25: 156-177.

Hyland, Ken. 2005b. Stance and engagement: A model of interaction in academic discourse. *Discourse Studies* 17/2: 173–192.

Jiang, F. (Kevin) and Hyland, Ken. 2016. Nouns and academic interactions: A neglected feature of metadiscourse. *Applied Linguistics*, published online: 1-25. doi:10.1093/applin/amw023.

Marín Arrese, Juana I. 2011. Epistemic legitimizing strategies, commitment and accountability in discourse. *Discourse Studies* 13/6: 789–797.

Marín Arrese, Juana I. 2015. Epistemic stance: A cross-linguistic study of epistemic stance strategies in journalistic discourse in English and Spanish. *Discourse Studies* 17/2: 210-225.

Mur-Dueñas, Pilar. 2011. An intercultural analysis of metadiscourse features in research articles written in English and in Spanish. *Journal of Pragmatics* 43: 3068-3079.

WORKSHOP 22

The Grammar of Names

Antje Dammel, Johannes Helmbrecht, Damaris Nübling, Barbara Schlücker, & Thomas Stolz
(University of Freiburg; University of Regensburg; University of Mainz; University of Bonn; &
University of Bremen)

Research on proper names has thus far mainly been concerned with diachronic changes, thereby focusing on etymological problems and the history of names. In linguistics and the philosophy of language there has also been abundant research on the semantics of proper names and the distinction between proper names and common nouns. In contrast, questions about the grammar of proper names have received comparatively little attention in the literature. However, in recent years there has been a number of studies that deal with the grammar of names. Those studies have indicated grammatical differences between proper names and common nouns with respect to all linguistic levels, cf. Kolde (1995), Gallmann (1997), Anderson (2004, 2007), Longobardi (2005), Nübling (2005), Van Langendonck (2007), Nübling et al. (2015), Stolz et al. (2014), Van Langendonck & Van de Velde (2016), among others.

Although there are a few aspects that have been discussed in some detail recently such as, for instance, the diachronic development of inflectional marking, in general many questions remain open or have not even been posed yet. One explanation for this is that proper names do not form a homogeneous class with respect to their grammatical status but, rather, there are quite a number of different simplex and complex morphological and syntactic constructions being subsumed under this category. Among other things, it has been shown that

- (Particular subclasses of) proper names have deviant phonotactic and prosodic properties. For instance, German toponyms are often stressed on a non-initial syllable (*Liebenáu, Ludwigsháfen*).
- In inflection-rich languages such as German proper names form an inflectional class of their own which has undergone deflection and is characterized by the absence of almost all inflectional markers and allomorphy.
- Proper names may exhibit particular syntactic properties, such as the position of the genitive or the use in close apposition constructions.
- Proper names often take (sometimes also special) articles (as e.g. in many Austronesian languages) showing a deviant functional and syntactic behaviour.
- Proper names are reported to combine with adpositions which differ from those of common nouns although identical grammatical relations are to be expressed.
- With regard to gender, proper names seem to follow special gender assignment principles; during proprialization they often leave their former common noun gender and adopt a different gender, depending on the object they refer to.
- In word-formation, they may make use of specific onymic patterns, e.g. specific onymic derivational affixes that can be used for the formation of names exclusively as well as deonymic affixes that take only proper names as their basis. Other word formation patterns such as clipping and blending have been associated with particular onymic classes, e.g. personal names or brand names.

- In Latin toponyms are renowned for their retention of the erstwhile locative which has disappeared from the paradigms of common nouns.
- A cross-linguistically frequently attested phenomenon is zero-marking of spatial relations (especially those of Place and/or Goal) with toponyms whereas common nouns more often than not encode the very same categories overtly.

Furthermore, proper names often differ from common nouns with respect to their graphemic properties, such as, in German, the use of the hyphen and apostrophe to mark morphological boundaries. In general, proper names are less standardized with respect to their orthographic properties.

Research on the grammar of names does not only necessarily include a diachronic but also a diatopic perspective. For instance, German personal names show a special article behaviour dependent on region and full personal names in German dialects pattern between compound structures (*der Müller Hans*) and genitive phrases (*s'Müllers Hans*).

The central question of the workshop is in which way and to which extent proper names deviate from non-proprial expressions and whether it is legitimate – or even necessary – to posit a specific grammar of proper names. To this end, we invite both language-specific and cross-linguistic contributions, including dialectal studies, both from a synchronic and a diachronic perspective. We especially encourage new insights driven by large corpus-oriented data from theoretical linguistics, historical linguistics, language typology, and variational linguistics.

Topics to be explored include, but are not restricted to, the following:

- What is the morphosyntactic status of (different kinds) of complex proper names? What are the implications for grammatical theory?
- Are there specific patterns of phonological deviance in proper names in a given language?
- Are there differences between different classes of proper names (such as place names vs person names) with regard to their morphosyntactic and/or phonological properties?
- How does the morphosyntactic marking of proper names differ cross-linguistically?
- How does deonymic word formation differ from word formation with the same (or: homonymic) derivational affixes?
- Which patterns of onymic word formation can be observed, both language-specifically and cross-linguistically?
- Are there competing patterns of morphological and syntactic constructions with proper names?
- Are there specific patterns of onymic inflection or tendencies that can be observed cross-linguistically?

References

Anderson, John M. 2004. On the grammatical status of names. Language 80. 435–474.

Anderson, John M. 2007. The grammar of names. (Oxford Linguistics). Oxford: Oxford University Press.

Gallmann, Peter. 1997. Zur Morphosyntax der Eigennamen im Deutschen. In Elisabeth Löbel & Gisa Rauh (eds.), Lexikalische Kategorien und Merkmale, 73–86. Tübingen: Niemeyer.

Hough, Carole (ed.). 2016. The Oxford Handbook of Names and Naming. Oxford: Oxford University Press.

Kolde, Gottfried. 1995. Grammatik der Eigennamen. In Ernst Eichler (ed.), Namenforschung: ein internationales Handbuch zur Onomastik, vol. 1, 400–408. (Handbücher zur Sprach- und Kommunikationswissenschaft 11). Berlin, New York: de Gruyter.

Langendonck, Willy Van. 2007. Theory and typology of proper names. (Trends in Linguistics 168). Berlin, New York: Mouton de Gruyter.

Longobardi, Guiseppe. 2005. Toward a Unified Grammar of Reference. *Zeitschrift für Sprachwissenschaft* 24. 5–44.

Nübling, Damaris. 2005. Zwischen Syntagmatik und Paradigmatik: Grammatische Eigennamenmarker und ihre Typologie. Zeitschrift für Germanistische Linguistik 33. 25–56.

Nübling, Damaris, Fabian Fahlbusch & Rita Heuser. 2015. Namen. Eine Einführung in die linguistische Onomastik. 2., überarbeitete und erweiterte Auflage. Tübingen: Narr.

Stolz, Thomas, Sander Lestrade & Christel Stolz. 2014. The Crosslinguistics of Zero-Marking of Spatial Relations. (Studia Typologica 15). Berlin, Boston: De Gruyter Mouton.

Van Langendonck, Willy & Marc Van de Velde. 2016. Names and Grammar. In Carole Hough (ed.), *The Oxford Handbook of Names and Naming*, 17–38. Oxford: Oxford University Press.

Mariens Vater vs. *der Vater Mariens* – Word order variation in (Early) New High German possessive constructions with proper names

Tanja Ackermann

(Freie Universität Berlin)

In Contemporary German, an essential syntactic difference between proper names and common nouns lies in the fact that names – above all personal names – usually precede their head noun in adnominal possessive constructions (cf. 1a), which would be rather marked in the case of common nouns (cf. 2a vs. 2b). The reversed order head noun > proper name is also possible (1c), but underlies more restrictions (cf. 1b vs. 1c; Peschke 2014).

(1) a.   *Kevin-s*   *Handy*
        Kevin-poss   mobile

   b.   [?]*das*   *Handy* *Kevin-s*
        the   mobile Kevin-poss
        'Kevin's mobile'

   c.   *die*   *Sehenswürdigkeiten*   *Berlins*
        the   sights   Berlin-poss
        'the sights of Berlin'

(2) a.   [?]*mein-es*   *Bruder-s*   *Handy*
        my-gen.sg   brother-gen.sg mobile

   b.   *das*   *Handy* *mein-es*   *Bruder-s*
        the   mobile my-gen.sg   brother-gen.sg
        'my brother's mobile'

On the basis of corpus studies Eisenberg & Smith (2002), Campe (2013) and Peschke (2014) examine syntactic (e.g. weight), pragmatic (e.g. accessibility) and semantic (e.g. animacy, Agent/Patient role) factors which determine the serialization of the possessor and the possessed in adnominal constructions with proper names. These studies – as well as studies on onymic possessors in other Indo-European languages (cf. e.g. Stolz et al. 2008: 274–406, Stolz, Levkovych & Urdze 2017) – are primarily concerned with synchronic variation. Diachronically orientated studies on

genitive variation in German have so far not focused on proper names (cf. Carr 1933, Ebert 1988 or Demske 2001).

In my corpus study, I take a closer look at the diachrony of adnominal possessive constructions with proper names. More specifically, the following questions will be addressed:

- Which factors determine the pre- vs. postposition of proper names in earlier periods of German? How are they weighted?
- Can we observe a diachronic trend towards postposition (and thus a convergence of names and common nouns), as Ebert (1988) predicts?
- Why is the more progressive word order with a postponed name more prestigious in present-day German?

The study is based on data from *Deutsches Textarchiv*, a reference corpus of (Early) New High German (1600–1900). A sample of more than 3.000 adnominal possessive constructions with an onymic possessor covering three centuries serves as data basis for my corpus analysis. Starting from the observation that word order variation exists within the whole period investigated, determining factors for this variation are detected and weighted in a multifactorial model of word order variation and change. For instance, it will be shown how the syntactic factor 'weight' gains influence over time. Remarkably, the historical data allow not only to investigate established (synchronic) parameters but also to detect new ones such as 'type of inflectional marker' (due to genitive allomorphy in older stages of German). Finally, a look at data from present-day German indicates that there is no strong tendency towards postposition of proper names. Starting from this observation, reasons for the special syntactic behaviour of proper names in adnominal possessive constructions will be discussed.

References

Campe, Petra. 2013. Word order restrictions in adnominal constructions: the case of the German pre- versus postnominal genitive. In Anne Carlier & Jean-Christophe Verstraete (eds.), *The Genitive*, 255–297. (Case and Grammatical Relations Across Languages 5). Amsterdam: Benjamins.

Carr, Charles T. 1933. The position of the genitive in German. *Modern Language Review* 28. 465–479.

Demske, Ulrike. 2001. *Merkmale und Relationen. Diachrone Studien zur Nominalphrase im Deutschen*. (Studia Linguistica Germanica 56). Berlin & New York: de Gruyter.

Ebert, Robert Peter. 1988. Variation in the position of the attributive genitive in sixteenth century German. *Monatshefte* 80. 32–49.

Eisenberg, Peter & George Smith. 2002. Der einfache Genitiv. Eigennamen als Attribute. In Corinna Peschel (ed.), *Grammatik und Grammatikvermittlung*, 113–126. Frankfurt am Main: Peter Lang.

Peschke, Simone. 2014. *Merkels Politik* vs. *die Politik Merkels*. Eine korpusbasierte Untersuchung zur Prä- und Poststellung von Eigennamen im Genitiv. In Friedhelm Debus, Rita Heuser & Damaris Nübling (eds.), *Linguistik der Familiennamen*, 233–248. (Germanistische Linguistik 225–227). Hildesheim, Zürich & New York: Olms.

Stolz, Thomas, Sonja Kettler, Cornelia Stroh & Aina Urdze. 2008. *Split Possession. An areal-linguistic study of the alienability correlation and related phenomena in the languages of Europe*. (Studies in Language Companion Series 101). Amsterdam & Philadelphia: Benjamins.

Stolz, Thomas, Nataliya Levkovych & Aina Urdze. 2017. Die Grammatik der Toponyme als typologisches Forschungsfeld: eine Pilotstudie. In Johannes Helmbrecht, Damaris Nübling & Barbara Schlücker (eds.), *Namengrammatik*. (Linguistische Berichte Sonderheft 23). Hamburg: Buske.

Hatt or *si*? The use of feminine and neuter forms in reference to female persons in Luxembourgish

Sara Martin

(University of Luxembourg)

Luxembourgish in general is a particularly interesting object of investigation because the standardization processes of this young language are still ongoing, which leads to great variation. One domain, in which this variation is reflected, is the gender assignment in reference to female persons. Therefore, this paper focuses on the analysis of the use of feminine and neuter forms when speaking of female persons in Luxembourgish.

On the one hand, female first names are generally neuter in Luxembourgish and take neuter targets such as personal pronouns (*hatt/et*) or definite and possessive articles. The feminine gender, on the other hand, is used (e.g. personal pronoun *si/se*) when referring to a female person with a surname and/or a title (e.g. *Madame* ‚Ms.'). Between those two categories, there are different types of names, who can either take the feminine or neuter (personal) pronoun (as well as e.g. definite and possessive articles) as for example the address with a female first name + surname (e.g. *Claire Hoffmann*). Until now, with the exception of Döhmer 2016, Nübling 2015 and Nübling/Busley/Drenda 2013, not much research has been done on this specific topic. However, these first investigations have already shown that the gender assignment mainly depends on sociopragmatic factors (such as age, respect, social hierarchy etc.) and that the aspect of pragmatic distance plays an important role.

Thus, the aim of this study is to find out more about the use patterns of the pronouns, the definite as well as the possessive articles and consequently about the situations and circumstances in which the neuter and feminine forms in reference to female persons are used. Another objective is the analysis of the exact pragmatic factors that are decisive in the choice of gender assignment considering the different addresses (first name, surname, first name + surname). The study combines the analysis of elicited data from an online questionnaire (over 2700 participants) and from picture and video descriptions (spoken data). The paper presents and discusses results from different types of data, which both confirm previous findings on the use of the feminine and neuter forms and highlight the variation in the use pattern depending on the age of the speaker.

References

Döhmer, Caroline (2016): Formenbestand und strukturelle Asymmetrien der Personalpronomen im Luxemburgischen. In: Zeitschrift für Dialektologie und Linguistik (ZDL), Beihefte, p. 13-38.

Nübling, Damaris (2015): Between feminine and neuter, between semantic and pragmatic gender assignment: Hybrid names in German dialects and in Luxembourgish. In: Agreement from a Diachronic Perspective. Ed. by Jürg Fleischer, Elisabeth Rieken and Paul Widmer. Berlin/Boston: de Gruyter Mouton (= Trends in Linguistics – Studies and Monographs 287), p. 235-265.

Nübling, Damaris / Busley, Simone / Drenda, Juliane (2013): *Dat Anna* und *s Eva* – Neutrale Frauenrufnamen in deutschen Dialekten und im Luxemburgischen zwischen pragmatischer und semantischer Genuszuweisung. In: Zeitschrift für Dialektologie und Linguistik (ZDL) 80 (2), p. 152-196.

How semiotic properties motivate morphological differences between proper names and common nouns in German

Christian Zimmer

(FU Berlin)

In Contemporary German, there are many morphological differences between proper names and common nouns. One major distinction between these two classes is the inflectional poverty of proper names: Unlike many common nouns (cf. 1), proper names do not take inflectional elements that affect the shape of a word (cf. 2), or even do not take inflectional elements at all (cf. 3). This holds true for different kinds of proper names (toponyms, anthroponyms, ergonyms etc.) and for both case and number inflection (cf. Nübling, Fahlbusch & Heuser [2]2015 for an overview).

(1) *Koch* [kɔχ] ('cook')   –   *Köche* [koe.çə] ('cooks')
(2) *Koch* [kɔχ] (family name, singular)   –   *Kochs* [kɔχs] (family name, plural)
(3) *d-es Libanon-s*   vs.   *d-es Libanon-Ø* ('the-Gen Lebanon-Gen/Ø')

The objective of my talk is to examine the interplay of factors that lead to poverty of inflection in proper names in German. I will argue that the semiotic properties of proper names are crucial in the explanation of the differences outlined above. Whilst common nouns have a lexical meaning, proper names are usually described as linguistic entities that do not have a descriptive content and refer to the named entity directly and uniquely (cf. e.g. Nübling 2000). In the words of Kripke (1980), we are dealing with 'rigid designators'.

In my talk, I will show that this significant characteristic of proper names directly or indirectly involves several (psycholinguistically relevant) traits, e.g. relatively late age-of-acquisition, low familiarity, low neighbourhood density, and low (subjective) frequency (cf. Juhasz 2005, Gernsbacher 1984, Andrews 1997 and Balota, Yap & Cortese [2]2006: 312 for a detailed description of these concepts). These traits, which are interrelated and heavily influenced by extra-linguistic factors, will be discussed in some detail, including methodological issues. I will argue that these properties aggravate word recognition and thus motivate the inflectional poverty of proper names, which in turn does facilitate word recognition: Inflection complicates the already difficult recognition of proper names, which will be shown by the results of a Self-Paced Reading Task, in which the reading times of inflected peripheral nouns are compared to the reading times of their non-inflected equivalents, e.g. *d-es Himalaya-s* vs. *d-es Himalaya* 'the-gen.sg Himalaya(-gen)'. Hence, it seems functionally motivated to spare these words from inflection as much as possible. To substantiate my claim, I will exemplarily show how differences between certain proper names (with regard to the traits mentioned above) are reflected in synchronic variation in German (e.g. the correlation of frequency and the use of the genitive-*s*, cf. 3).

The empirical part of my talk will be based on evidence from the Self-Paced Reading Task, corpus studies (data taken from the German reference corpus *DeReKo* and the web-corpus *DECOW*) and data from questionnaires.

References

Andrews, Sally. 1997. The effect of orthographic similarity on lexical retrieval: Resolving neighborhood conflicts. *Psychonomic Bulletin & Review* 4. 439–461.

Balota, David A., Melvin J. Yap & Michael J. Cortese. [2]2006. Visual word recognition: the journey from features to meaning (a travel update). In Matthew J. Traxler & Morton Ann Gernsbacher (eds.), *Handbook of Psycholinguistics*, 285–375. Boston: Elsevier.

Gernsbacher, Morton Ann. 1984. Resolving 20 years of inconsistent interactions between lexical familiarity and orthography, concreteness, and polysemy. *Journal of Experimental Psychology: General* 113. 256–281.

Juhasz, Barbara J. 2005. Age-of-acquisition effects in word and picture identification. *Psychological Bulletin* 131. 684–712.

Kripke, Saul. 1980. *Naming and Necessity*. Oxford & Cambridge: Blackwell.

Nübling, Damaris. 2000. Auf der Suche nach dem idealen Eigennamen. *Beiträge zur Namenforschung* 35. 275–302.

Nübling, Damaris, Fabian Fahlbusch & Rita Heuser. [2]2015. *Namen. Eine Einführung in die Onomastik*. Tübingen: Narr.

Classification, Gender-Marking and Sex-Specific Forms of Personal Names

Corinna Handschuh

(Universität Regensburg)

This paper investigates the differences between common nouns and proper nouns (mainly focusing on personal names) with respect to classificatory devices in the languages of the world. Linguists have only recently begun to investigate the distinct grammatical properties of proper nouns and common nouns (Anderson 2007, Van Langendonck 2007). The differences between the two types of nominals can be quite subtle, as has been demonstrated for the marking of spacial relations on place names (Stolz et al. 2017) and the marking of case and definiteness on personal names (Handschuh 2017). Classificatory devices and their usage with proper nouns have not been studied in any detail from a comparative point of view. This paper is a first attempt to gain a crosslinguistic perspective on this phenomenon. The data are drawn from a functionally oriented typological study based on language descriptions from grammars, ethnological studies and other published material.

Common nouns exhibit distinct, grammatically relevant subgroups in many languages. These subgroups manifest through choice of classifiers, via overt noun-class/gender marking or through agreement (Dixon 1986, Corbett 1991). I will refer to all these strategies as classificatory devices in the following. There are several ways in which proper nouns are treated differently from common nouns with respect to classificatory devices. For instance, a device may simply not be applied to proper nouns. Van de Velde (2006) describes proper nouns in the Bantu language Eton as genderless, and in Hmong Njua, nominal classifiers cannot be combined with proper nouns (Harrienhausen 1990: 123). On the other hand, a language may use sex-specific markers in the formation of personal names, while common nouns do not exhibit any kind of gender marking. In languages that distinguish gender in common nouns, the system employed for classification of proper nouns may work differently. For instance, overt markers of sex can be present in personal names, while grammatical gender on common nouns is inherent. Another dimension, which cannot be covered to any significant extent in a typological study based on a number of little described languages, is the historical development of classificatory devices on proper nouns. For German, Nübling (2015) suggests that the nominal gender system is on its way to a semantically transparent classifier system for some types of

proper nouns, e.g. brands/types of beer being neuter and motorcycles being feminine. This is a striking observation since it contradicts the assumption that classifiers develop into gender systems and not vice versa.

The aim of the paper is twofold, first, to illustrate the types of interactions found between classificatory devices and proper nouns vis-à-vis common nouns. And second, to map their worldwide distribution in a diverse sample of 50+ languages.

References

Anderson, John M. 2007. *The Grammar of Names*. Oxford: Oxford University Press.

Corbett, Greville. 1991. *Gender*. Cambridge: Cambridge University Press.

Dixon, R. M. W. 1986. Noun classes und noun classification in typological perspective. In Colette Grinevald Craig (ed.) *Noun classes and categorization*, 105–112. Amsterdam: John Benjamins.

Handschuh, Corinna. 2017. Nominal categories on personal names: A typological study of case and definiteness. *Folia Linguistica* Special Issue: The Morphosyntax of Proper Names (to appear).

Harrienhausen, Bettina. 1990. *Hmong Njua: Syntaktische Analyse einer gesprochenen Sprache mithilfe datenverarbeitungstechnischer Mittel und sprachvergleichende Beschreibung des südostasiatischen Sprachraums*. Tübingen: Niemeyer.

Nübling, Damaris. 2015. Die Bismarck – der Arena – das Adler: Vom Drei-Genus- zum Sechs-Klassen-System bei Eigennamen im Deutschen: Degrammatikalisierung und Exaption. *Zeitschrift für Germanistische Linguistik* 43(2), 306–344.

Stolz, Thomas, Nataliya Levkovych & Aina Urdze. 2017. Die Grammatik der Toponyme als typologisches Forschungsfeld: Eine Pilotstudie. In Johannes Helmbrecht, Damaris Nübling & Barbara Schlücker (eds.) *Namengrammatik*, no. 23 in Linguistische Berichte Sonderhefte, 121–146. Hamburg: Buske.

Van de Velde, Mark L. O. 2006. Multifunctional agreement patterns in Bantu and the possibility of genderless nouns. *Linguistic Typology* 10, 183–221.

Van Langendonck, Willy. 2007. *Theory and Typology of Proper Names*. Berlin: Mouton de Gruyter.

Gender agreement in Spanish city names

Jessica Nowak & Javier Caro Reina
(University of Mainz & University of Cologne)

In languages with sex-based gender systems, gender may be assigned to proper names according to semantic and referential principles. This is the case in Romance languages such as Spanish (see Fahlbusch/Nübling 2014, Nübling 2015 for German). Semantic gender assignment occurs in first names such as *Pedro* 'Peter' and *María* 'Mary' while in names of rivers (*el Guadiana*), cars (*un Mercedes*), motorbikes (*una Harley*), and companies (*la Mercedes*) gender assignment is based on the basic level noun — that is, the hyperonyms *río* (m.) 'river', *coche* (m.) 'car', *motocicleta* (f.) 'motorbike', and *compañía* (f.) 'company' (see Fernández Leborans 1999:84-85, RAE 2009:123-124 for examples). By contrast, in city names we find gender variation, as illustrated in (1), where the predicative adjective may be either masculine (*Granada es bonito*) or feminine (*Granada es bonita*). However, gender variation does not occur in attributive adjectives, as shown in (2). This syntactic constraint can be explained in terms of Corbett's (1979:204) "agreement hierarchy", according to

which only syntactic agreement is possible in attributive position (*La Granada islámica*) while in predicative position either syntactic or semantic agreement is possible (*Granada es bonito / bonita*).

(1) *Granada*   *es*   *bonit-o / bonit-a*
     Granada   be.3sg.prs   beautiful-m / beautiful-f
     'Granada is beautiful.'

(2) **El / La*   *Granada*   *islámic-a*
     def.art.m / def.art.f   Granada   Islamic-f
     'Islamic Granada.'

In previous accounts of gender in city names (among others: Fernández Leborans 1999:84, RAE 2009:124-125), gender assignment has been attributed to phonological principles (see Feigenbaum 1989 for French). That is, city names ending in *-a* are feminine (*Granada*) while those ending in *-o*, *-e*, or consonant are masculine (*Toledo*, *Alicante*, *Madrid*). The alternative use of feminine gender in city names ending in *-o*, *-e*, or consonant as in *Madrid es bonita* 'Madrid is beautiful' results from the hyperonym *ciudad* 'city', which is feminine in Spanish (*la ciudad* 'the city'). This assumption, however, can be challenged when considering the alternative use of masculine gender in city names ending in *-a* as in *Granada es bonito* 'Granada is beautiful'.

The gender of Spanish city names has been approached from a diachronic perspective (Rosenblat 1962, Espinós Gozálvez 2003), thereby revealing that city names were originally feminine as a result of referential gender (*ciudad* (f.) 'city'). The occurrence of masculine gender hence constitutes an innovation. This ongoing change can be gleaned from the current alternation between feminine and masculine gender in predicative position. This alternation is an example of doubtful cases. With regard to the development of gender agreement in city names, masculine seems to fulfil the function of "evasive gender" (see Corbett 1991:221-223 for the term). In this respect, Spanish resembles German, where city names were originally feminine due to referential gender while now they are neutral due to evasive gender (see Nübling/Fahlbusch/Heuser 2012:74, Schmuck 2015 for details).

The purpose of our talk is to give a diachronic account of the development from referential gender to evasive gender in native and non-native city names on the basis of the *Corpus del español* (Davies 2002). The analysis will examine the patterns of gender assignment according to selected parameters. These include the ending of city names (*-a*, *-o*, *-e*, or consonant) and syntactic context (predicate vs. attributive, quantifying vs. non-quantifying NP, and adjective vs. prepositional attribute).

References

Corbett, Greville G. 1979. The agreement hierarchy. *Journal of Linguistics* 15(2). 203-224.

Corbett, Greville G. 1991. *Gender*. Cambridge: Cambridge University Press.

Davies, Mark. 2002. Corpus del español. 100 million word corpus of Spanish (1200s-1900s). Online available at http://www.corpusdelespanol.org.

Espinós Gozálvez, Adriana. 2003. La evolución del género en los topónimos: los nombres de ciudades. *Res Diachronicae* 2. 91-100.

Fahlbusch, Fabian & Damaris Nübling. 2014. *Der Schauinsland – die Mobiliar – das Turm*. Das referentielle Genus bei Eigennamen und seine Genese. *Beiträge zur Namenforschung* 49(3). 245-288.

Feigenbaum, Susanne. 1989. Le genre des noms de villes comme signe linguistique. In: Yishai Tobin (ed.), *From sign to text: A semiotic view of communication*, 407-414. Foundations of Semiotics 20. Amsterdam: John Benjamins.

Fernández Leborans, María Jesús. 1999. El nombre propio. In Ignacio Bosque & Violeta Demonte (eds.), *Gramática descriptiva de la lengua española*, 77-128. Madrid: Espasa Calpe.

Nübling, Damaris, Fabian Fahlbusch & Rita Heuser. 2012. *Namen. Eine Einführung in die Onomastik.* Tübingen: Narr.

Nübling, Damaris. 2015. *Die Bismarck – der Arena – das Adler.* Vom Drei-Genus- zum Sechs-Klassen-System bei Eigennamen im Deutschen: Degrammatikalisierung und Exaptation. *Zeitschrift für germanistische Linguistik* 43(2). 307-345.

Real Academia Española. 2009. *Nueva gramática de la lengua española. Morfología. Sintaxis I.* Madrid: Espasa Libros.

Rosenblat, Ángel. 1962. Morfología del género en español. Comportamiento de las terminaciones *-o, -a. Nueva Revista de Filología Hispánica* 16(1-2). 31-80.

Schmuck, Mirjam. 2015. *Diu himeliſch Jeruſalem* – Variation and change in gender assignment of proper names (toponyms) in German. Paper presented at the Workshop on Proper Names and Morphosyntax, Freie Universität Berlin.

Proper names and case markers in Sinyar (Chad/Sudan)

Pascal Boyeldieu

(CNRS [UMR 8135 LLACAN], France)

Sinyar, an alleged Central Sudanic language of Western Darfur (Dornboos & Bender 1983), is characterised by case markers taking the form of postpositions suffixed to the final element of the noun phrase (with a general order head–modifiers). However the case marker system is double: head common nouns contrast a Nominative (mainly marking subject/agent) and an Adverbial (covering all values of locative, instrumental and comitative), while object/patient is unmarked ('absolute form'):

	Absolute form	Nominative	Adverbial
Sg.	Ø	-n / -Ni	-ti
Pl.		-si	

1. Case markers for common nouns

Head proper names have different markers for the same cases as above and furthermore distinguish a Genitive and an Accusative (Boyeldieu 2015):

	Absolute form	Nominative	Genitive	Accusative	Adverbial
Sg.	Ø	-n / -lè	-na□	-(y)àà	-lèè
Pl.		-ngè		-ngàá	-ngèèr

2. Case markers for proper names

Proper names consist of personal names – including personified animals –, names of places, rivers, mountains, and countries, the partial interrogative *đè□è□*- 'who?', some animal names, as well as those names of the points of the compass that borrowed from Arabic. Either marker system may be applied to different kin terms, to some brand names (medicines), to some names of diseases, as well as to the dummy noun □*ɲàkwà*, meaning both 'thingy, thingummy, what-do-you-call-it' (as a common noun) and 'what's-his/her-name, So-and-So' (as a proper name).

Finally personal pronouns and deictics display the same four cases contrast like proper names, although with forms that exhibit only limited similarity with the latter markers.

Beside describing the morphosyntactic specificities of the two nominal subsets, I will try to show that

– proper names are not only characterized by a property of monoreferentiality but also often involve a correlative semantic component of 'intimacy';

– common nouns and proper names do not represent clear-cut subcategories in the sense that proper names are, to some extent, ambivalent, and their semantic content may be oriented by the type of markers they are applied to.

References
Boyeldieu, Pascal. 2015. Case alignment(s) in Sinyar, in A. Mietzner & A. Storch (eds), *Nilo-Saharan: Models and Descriptions*. Köln: Rüdiger Köppe, 21-36.

Doornbos, Paul & Marvin Lionel Bender. 1983. Languages of Wadai-Darfur, in M.L. Bender (ed.), *Nilo-Saharan Language Studies*. East Lansing: African Studies Center, Michigan State University, 42-79.

Van Langendonck, Willy & Marc Van de Velde. 2016. Names and Grammar, in Carole Hough (ed.), *The Oxford Handbook of Names and Naming*. Oxford: Oxford University Press, 17-38.

On nouns, natural locations and Place concepts: zero-marked toponyms in Makalero locative constructions (East Timor)

Juliette Huber
(University of Regensburg)

It is well known that place names (toponyms) often require less specific locative marking than common nouns (e.g. Creissels 2008). Indeed, Stolz, Lestrade & Stolz (2014) show that it is cross-linguistically very common for place names to be used as reference objects (Grounds) in locative constructions with no overt locative marking at all. Toponyms (as well as some common nouns) are prototypical Grounds and can therefore be characterized as 'natural locations'. While in semantic terms, nouns are normally thought to express Thing concepts, the fact that natural location nouns can appear without overt locative marking has led some authors to the conclusion that these nouns correspond to the conceptual category Place (e.g. Mackenzie 1992; Rybka 2014). This, however, is at odds with some influential semantic frameworks (e.g. Jackendoff 1983; Langacker 2013), according to which the syntactic equivalents of Place concepts are relational expressions such as locative adverbials and adpositional phrases.

In this talk, I aim to contribute to our understanding of the syntactic properties of zero-marked location and relate it to the semantics literature. I will present a syntactic analysis of a locative construction in Makalero, a Papuan language of East Timor, in which place names appear without an overt locative marker. Using syntagmatic and paradigmatic evidence, I will show that in this construction, the zero-marked place names are used predicatively. When they function as arguments, a similar locative reading is not available. I therefore conclude that the locative meaning is a property of the *place name used in predicative function*, rather than of the place name per se. This means that the zero-marked locatives of Makalero, despite the absence of a locative marker, conform to the Place category as proposed in the above-mentioned semantic frameworks; i.e. they are relational expressions.

Although they are commonly discussed as a subclass of nouns, it has been noted that natural locations are associated with reduced nominal qualities in a variety of languages, and I will present a few examples from a small number of unrelated languages. I will suggest that an analysis similar to that presented for Makalero may also apply to many of the languages discussed in Stolz, Lestrade & Stolz (2014); however, that work aims to present an overview of the pervasiveness of zero-marking of spatial relations only, and does not describe the syntax of these constructions in any detail. In-depth language-specific studies are thus necessary to support my claim. In the Makalero case, pro-forms used to replace zero-marked locatives in deictic and anaphoric contexts as well as the syntactic category of the corresponding interrogative provide crucial evidence as to the syntax of the construction, and I will suggest that this is a promising starting point for a language-specific syntactic study of zero-marked locative constructions.

References

Creissels, Denis. 2008. Spatial Cases. In Andrej Malchukov & Andrew Spencer (eds.), *The Oxford Handbook of Case*, 609–625. Oxford: Oxford University Press.

Jackendoff, Ray. 1983. *Semantics and cognition*. Cambridge (MA): MIT Press.

Langacker, Ronald W. 2013. *Essentials of cognitive grammar*. Oxford: Oxford University Press.

Mackenzie, J. Lachlan. 1992. Places and Things. In Michael Fortescue, Peter Harder & Lars Kristoffersen (eds.), *Layered Structure and Reference in a Functional Perspective: Papers from the Functional Grammar Conference, Copenhagen, 1990*, 253–276. Amsterdam/Philadelphia: John Benjamins Publishing.

Rybka, Konrad. 2014. How are nouns categorized as denoting "what" and "where"? *Language Sciences* 45. 28–43.

Stolz, Thomas, Sander Lestrade & Christel Stolz. 2014. *The Crosslinguistics of Zero-Marking of Spatial Relations*. Berlin: Mouton.

Thomas Stolz, Ingo H. Warnke, & Nataliya Levkovych
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Proper name-marking via *liaison* in French

Natascha Pomino & Elisabeth Stark
(Bergische Universität Wuppertal & Universität Zürich)

In our talk we discuss different patterns of plural marking in N(oun)-A(djective)-combinations vs. A(djective)-N(oun)-combinations in phonic French and argue that deviations from the main plural marking patterns are due to the proper-name-like status of the expression at issue.

In contemporary French, there is a striking asymmetry in what looks like inflectional plural marking via *liaison*: Our corpus analysis (spontaneous data and reading tasks, both from existing corpora – especially the *PFC, Phonologie du Français Contemporain*, http://www.projet-pfc.net/moteur.html – and specifically designed ones in order to check different phonological contexts for the *liaison* phenomena at issue – see the data of the *Sapperlot corpus* which were elicited as part of the project *Stimmen der Schweiz*, http://www.stimmen.uzh.ch/) shows that whereas prenominal

adjectives generally realize a latent consonant [z] in front of a noun with vocalic onset (i.e. A-[z]-N in *belles amies* [bɛlzami] 'beautiful (female) friends'), this does not hold for a plural noun preceding an adjective with vocalic onset (i.e. N-Ø-A in *amis étrangers* [amietʀɑ̃ʒe] 'foreign friends'). Quantitative analyses of our corpus data show this asymmetry with clear statistical significance: 89% of the relevant A-N-combinations of the PFC-corpus show [z]-*liaison*, whereas only in 18% of the N-A-combination the latent consonant [z] is realized (in spontaneous speech) (cf. also Ågren 1973, Malécot 1975, Ashby 1981, Smith 1996, Ranson 2008). The mentioned regularity has, however, one crucial exception: *liaison* in NA-combinations appears systematically and independently from register variation in 'proper name-like' expressions such as *Jeux Olympiques* [ʒøzolɛ̃pik] 'Olympic Games'. Whereas the maintenance of optional *liaison* consonants may be generally linked to a higher degree of lexicalization of the respective expressions (cf. Ågren 1973:124; Klein 1982:171–172; Bybee 2005: 27; Meinschaefer, Bonifer, & Frisch 2015: 384), we argue that in N-A-combinations like *Jeux Olympiques*, which are clearly not plural semantically (see already Jespersen 1948:64, 69 and Coseriu 1989:230 on that issue), the (former) plural marker [z] is assuming a new synchronic function, i.e. proper name-marking, a finding interesting also in a comparative view. Contrary to proper name-marking in Germanic languages, where proper names show less inflectional material or less inflectional allomorphy (cf. e.g. Nübling 2005, Fuss 2011), proper name-like N-A-combinations in French seem to show *more* internal inflectional marking. This could be explained as follows: if we assume a diachronic loss of *liaison* in N-A-combinations, as opposed to A-N-combinations, the maintenance of the *liaison*-[z] in proper names looks like 'frozen' morphology with a new synchronic function, in line with general observations by Nübling (1998). Beyond this, *liaison* as proper name-marking seems to be productive, because it functions also in new (i.e. invented) N-A-combinations, and it is even extended to singular N-A-combinations, where *liaison* is out in contemporary French (cf. e.g. Delattre 1966:47), but still possible and even obligatory in names like *Mont Aigu* [mɔ̃tegy] (not [mɔ̃egy]). We will also present our current investigation concerning the productivity of [z] as marker of proper-namehood. First results of a still ongoing pilot study support our hypothesis that native speakers tend to realize [z] only if the N-A-combinations at issue (e.g. *maladies anglaises* 'English diseases') is used as a proper name.

References

Ågren, John. 1973. *Etudes sur quelques liaisons facultatives dans le français de conversation radiophonique: Fréquence et facteurs.* Uppsala: Acta Universitatis Upsaliensis.

Ashby, William J. 1981. French liaison as a sociolinguistic phenomenon. In William W. Cressey & Donna Jo Napoli (eds.), *Linguistic symposium on Romance languages*, 46–57. Washington, DC: Georgetown University Press.

Bybee, Joan. 2005. La liaison: Effets de fréquence et constructions. *Langage* 158. 24-37.

Coseriu, Eugenio. 1989. Der Plural bei den Eigennamen. In Friedhelm Debus & Wilfried Seibecke (eds.), *Reader zur Namenkunde, vol. I: Namentheorie*, 225-240. Hildesheim: Olms.

Delattre, Pierre. 1966. *Studies in French and comparative phonetics*. The Hague: Mouton.

Fuss, Eric. 2011. Eigennamen und adnominaler Genitiv im Deutschen. Linguistische Berichte. 255. 19-42.

Jespersen, Otto. 1948. *The philosophy of grammar*. London: Allen & Unwin.

Klein, Hans-Wilhelm. 1982. *Phonetik und Phonologie des heutigen Französisch*. 6th edn. München: Hueber.

Malécot, André. 1975. French Liaison as a function of grammatical, phonetic and paralinguistic variables. *Phonetica* 32. 161–79.

Meinschaefer, Judith, Sven Bonifer & Christine Frisch. 2015. Variable and invariable liaison in a corpus of spoken French. *Journal of French Language Studies* 25. 367–396.

Nübling, Damaris. 1998. Auf der Suche nach dem idealen Eigennamen. In Karmen Terzan-Kopecky (ed.), *Sammelband des II. Internationalen Symposiums zur Natürlichkeitstheorie*, 23-25 Mai 1996, 231-254. Maribor: Universität Maribor.

Nübling, Damaris. 2005. Zwischen Syntagmatik und Paradigmatik: Grammatische Eigennamenmarker und ihre Typologie. *Zeitschrift für Germanistische Linguistik* 33. 25-56.

Ranson, Diana. 2008. La liaison variable dans un corpus du français méridional: L'importance relative de la fonction grammaticale. In Jacques Durand, Benoît Habert & Bernard Laks (eds.), *Congrès Mondial de Linguistique Française – CMLF'08*, 1669-1683. Paris: Institut de Linguistique Française.

Smith, Alan. 1996. *A diachronic study of French variable liaison*. Newcastle: University of Newcastle dissertation.

Prosodic analysis of foreign proper names in Brazilian Portuguese

Natalia Zaninetti Macedo & Gladis Massini-Cagliari

(São Paulo State University)

Recent works have proved that, in Brazilian Portuguese (BP), proper names have deviant phonotactic and prosodic properties compared to common nouns of foreign origin. Assis (2007) showed that common nouns of English origin are generally adapted in both spelling and phonological levels by BP speakers (*e.g.*, *football*, whose accent and orthography are regularized in Portuguese as 'futebol' and pronounced /futʃiˈbɔw/). However, Massini-Cagliari (2010, 2011a,b, 2013), Souza (2011) and Macedo (2015) showed that, frequently, BP speakers intentionally try to escape from the expected prosodic patterns of their own language. In the present research we show that the phonotactic shift occurs mainly by the adoption of marginal stress patterns (proparoxytone and paroxytone words ended in heavy syllables) and/or of exceptional syllabic patterns in order to assert the foreign origin of the chosen name. In this way, the feeling of strangeness concerning foreign names rests mainly in the adoption of an exceptional prosodic pattern. BP speakers also create names that sound like foreign proper nouns but tend to present deviant spelling patterns; those creations are 'adjusted' to Portuguese phonetic rules with a 'foreign' appearance, though. In this work, we depart from Macedo's (2015) *corpus*, composed by 14,716 proper names (in total, including repeated entries) of children ranging from 4 months to 14 years-old, collected from school lists of São Carlos, a city in the interior of the State of São Paulo, Brazil. The approach adopted was both quantitative and qualitative. We scrutinized the names with phonological and orthographical behaviors divergent from what would be expected in BP, as well as the motivation behind their election (through a questionnaire answered by the students or their parents). From this total, 42% were common names recorded in anthroponymic dictionaries with standard spelling (in Brazil, proper names, like common names, are expected to be spelled according to the standard orthography); 34% were deviant spelling variants of common names; 14% were original names (there is, names invented by the parents based on the orthography or pronunciation of American names, *e.g.*: 'Jhãn', 'Khenyffer'); 6% were phonologically and orthographically adapted loans (*e.g.*, 'Michael' was written 'Máicon', 'Maycon' or 'Maykon', resulting in the pronunciation /majkoN/, the closest to /majkəl/ to a BP speaker); and 4% were English-apparently non-adapted names (either in the orthography, like 'Joyce' or 'William', or in the maintenance of the proparoxytone accent as in 'Richard', /ˈhi.ʃaR.di/, instead of the paroxytone BP correspondent 'Ricardo', /hiˈkaR.du/). Our results show that the phonological and orthographical

behaviour of most of the (truly or not) foreign anthroponyms do not follow the patterns expected in the BP grammar. Besides, parents operate with and over the language in a stylistically fashion when choosing foreign or foreign-like names to their children, intentionally aiming to avoid the prosodic patterns of their own language. In this way, BP names, especially historically-recent ones, can present a deviant phonological pattern compared to common Portuguese nouns. (This research was supported by FAPESP: 2015/08197-3).

References

Assis, A. B. G. de. Adaptações fonológicas na pronúncia de estrangeirismos do inglês por falantes de Português Brasileiro. Dissertação (Mestrado em Linguística e Língua Portuguesa) - Faculdade de Ciências e Letras, Universidade Estadual Paulista Júlio de Mesquita Filho, Unesp, Araraquara, 2007.

Macedo, N. Z. *Análise fonológica de nomes próprios de origem estrangeira e novas criações em Português Brasileiro.* Dissertação (Mestrado em Linguística e Língua Portuguesa) - Faculdade de Ciências e Letras, Universidade Estadual Paulista Júlio de Mesquita Filho, Unesp, Araraquara, 2015.

Massini-Cagliari, G. Discutindo questões de identidade a partir da (não) adaptação fonológica de nomes próprios de origem estrangeira no Brasil. In: NEVES, M. H. M. (Org.). *As interfaces da gramática*. 1 ed. São Paulo/Araraquara: Cultura Acadêmica/Laboratório Editorial FCL, 2010, v. 1, p. 73-90.

Massini-Cagliari, G. Loans and foreign first names as clues to Phonological Identity in Brazilian Portuguese. In: David Hornsby. (Org.). *Interfaces in language* 2. 1 ed. Newcastle upon Tyne: Cambridge Scholars, 2011a, v. 1, p. 53-67.

Massini-Cagliari, G. Adaptação de nomes próprios de origem estrangeira: comparação entre português arcaico e português brasileiro. In: *Estudos Linguísticos*, São Paulo, 40 (2), mai-ago, 2011b, p. 795-807.

Massini-Cagliari, G. Changing Attitudes: Ways of Phonologically Adapting Proper Names in Archaic Brazilian and European Portuguese. In Marina Kolokonte and Vikki Janke (Ed.) *Interfaces in Language 3*. Newcastle upon Tyne: Cambridge Scholars, 2013. p. 159-178.

Souza, S. M. L. S. *Antropônimos de origem inglesa: adaptações ortográficas e fonético-fonológicas realizadas por falantes do português brasileiro de São Luís-MA*. Tese (Doutorado em Linguística e Língua Portuguesa) – Faculdade de Letras da Universidade Estadual Paulista "Júlio de Mesquita Filho", FCL/UNESP, Araraquara: 2011.

Javier Sanz & Sabine Arndt-Lappe

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Names & co. A diachronic typology of associative plurals

Andrea Sansò & Caterina Mauri

(Università dell'Insubria & Università di Bologna)

Associative plural constructions, defined, following Moravcsik (2003) and Daniel & Moravcsik (2013), as constructions consisting of a noun X plus some other material, whose meaning is "X and

other people associated to X", are generally limited to nominals with human reference, usually proper nouns or kin terms. These constructions differ, among other things, with respect to:

(i)   the possibility for the associative plural marker to be used in conjunction with other nominals ranking lower on the animacy hierarchy (human nouns, animate nouns, inanimate nouns – in this latter case yielding a similative plural meaning 'X and similar stuff');

(ii)   the semantic constraints on the associated group, which can be limited to people usually associated with the noun X (e.g. family, friends) or may include more occasional sets of people (X and his/her associates in a given situation).

Based on a 120-language sample (including the 95 languages in Daniel & Moravcsik's 2013 sample in which a dedicated bound or non-bound associative plural marker is attested), in this paper we argue that some synchronic differences among associative plural constructions may be explained by taking into account their diachronic sources. These sources cannot be reconstructed for all the languages in the sample, as in many cases the associative plural marker is simply opaque. Yet, in a number of cases, either there is some synchronic resemblance between the associative plural marker and other grammatical/lexical units that allows us to hypothesize a diachronic connection between them, or the source of the associative plural can be reconstructed by resorting to the comparative method. The following sources appear to be recurrent in the sample:

(a)   possessive pronouns (*X [and] his/her*; cf. (1));
(b)   3rd person plural pronouns (*X [and] them*, cf. (2));
(c)   conjunctions without the second coordinand (*X and*; cf. (3));
(d)   total/universal quantifiers (*X [and] all*, cf. (4));
(e)   verbs meaning 'select, pick up, take (from a group)' (cf. (5)).

The diachronic-typological survey also reveals a tendency for constructions deriving from possessive pronouns and 3rd person plural pronouns (types (a) and (b)) to be limited to proper nouns and kin terms and to designate a habitual group, whereas associative plural markers deriving from conjunctions and from total/universal quantifiers (types (c) and (d)) are also used with referents ranking lower on the animacy hierarchy and may refer to more occasional groups.

Examples

(1)   Hungarian (Ugric; Moravcsik 2003: 469)
--- *-ék*, the associative plural marker, can be analyzed as *-é* 'his one' and *-k* 'plural' (Moravcsik 2003: 470)

*Péter-**ék***
Peter-apl
'Peter and his family or friends or associates'

(2)   Buwal (Biu-Mandara; Viljoen 2013: 322)
--- A possible source of the associative plural marker *ātā* is the 3rd person plural pronoun *tātā* (Viljoen 2013: 275)

*ɮàɓá   **ātā**   martan éj   **ātā**   baba   nākā   éj   **ātā**   tebe*

with APL Martin and APL father 1SG.POSS and APL Tebe
'[…] with Martin and his associates, my father and his associates and Tebe and his associates.'

(3)   Basque (isolate; Daniel & Moravcsik 2013)
--- The associative plural is formed by adding the conjunction *ta* ('and') to the noun without a second coordinand

Mendigats̃a ta … jin dira
'Mendigacha y … (los demás) han venido.'/'Mendigacha and others have come.'

(4)   South Efate (Oceanic; Thieberger 2004: 353)
--- The associative plural marker *mana* also functions as a total quantifier (e.g. *fei mana* 'who all?')

i=mai   lek   mama   mana
3SG.R=come   look   mother APL
'Then he came and saw his mother and others.'

(5)   Dyirbal (Northern Pama-Nyungan; Dixon 1972: 51)
--- The associative plural suffix *–maŋgan* (cf. (5a)) is homophonous with a verb meaning 'pick up' (cf. (5b))

a.   *bayi burbula**maŋgan** miyandaɲu*
       'Many people (i.e. more than two) laughed, one being Burbula.' (i.e. Burbula and others laughed)
b.   *buṛan   baŋgul   barmba   barmbiɲu /*
       see-PRES/PAST   THERE-ERG-I quartz-NOM   glitter-REL-NOM
       ***maŋgan** /   bayguli dibanda / yagi*
       pick_up-PRES/PAST   bash-PURP   rock-LOC
       'He saw a piece of quartz glittering, picked it up, to bash it on a rock…'

References

Daniel, M. & E. Moravcsik. 2013. The associative plural. In M. S. Dryer & M. Haspelmath (eds.), *The World Atlas of Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology (http://wals.info/chapter/36)

Dixon, R. M. W. 1972. *A Grammar of Dyirbal*. Cambridge: Cambridge University Press.

Moravcsik, E. 2003. A semantic analysis of associative plurals. *Studies in Language* 27(3): 469-503.

Thieberger, N. A. 2004. *Topics in the grammar and documentation of South Efate, an Oceanic language of Central Vanuatu*. PhD Dissertation, University of Melbourne.

Viljoen, M. H. 2013. *A grammatical description of the Buwal language*. PhD Dissertation, La Trobe University.

WORKSHOP 23

The Interaction between Borrowing and Word Formation

Pius ten Hacken & Renáta Panocová

(Leopold-Franzens-Universität Innsbruck & Pavol Jozef Šafárik University Košice)

Borrowing and word formation are two of the most prominent naming devices that are invoked when new concepts need to be named. In borrowing, the name used in another language is adopted. In word formation, a rule is applied to form a new word on the basis of one or more existing words. In the history of the study of language, borrowing has become part of the fields of etymology and lexicography, whereas word formation has been incorporated into morphology.

Etymology is the study of the origin of words, as described by Durkin (2009). In etymological studies, the history of a word is followed backwards through time within the same language as far as sources go. The identification of cognates in related languages is a crucial method for achieving a greater historical depth than can be achieved within a single language. In lexicography, the origin of words is given for a larger set of words. Whereas etymology concentrates on cases where the origin is not immediately obvious, lexicographic work tends to take a more comprehensive approach, describing the origin also for borrowings that are still recognizable as such (cf. Svensén, 2009: 333-343).

Morphology is the study of the form of words. Word formation is one of its main components. Depending on the theory adopted, word formation rules can be conceptualized as rules combining morphemes to produce words or as processes that apply to one word and produce another word. The position of word formation rules in the system of language is a matter of theoretical debate, as can be seen in the different chapters of Lieber & Štekauer (2009, 2014).

The interaction of word formation and borrowing occurs in language contact situations, because borrowing is a side effect of language contact. The interaction can take the form of competition or collaboration. One context in which competition is found is when we find two competing names for the same concept, one a borrowing the other the result of word formation. It is frequent in the domain of computing in German, e.g. *Computer* or *Rechner* ('computer'), where the latter is formed on the basis of *rechnen* ('calculate'). At a more theoretical level, we find competing analyses of the same word. English *dependence* can be analysed as a borrowing from French or as the result of a word formation rule applied to *depend*.

Collaborative interaction occurs where borrowing feeds word formation. One type of process where this occurs is in calques. German *übersetzen* ('translate') consists of two components that correspond to the ones in Late Latin *traducere* ('translate'), cf. Pöckl (2016). Another type of feeding is found in word formation processes that emerge under the influence of another language. An example is Mühleisen's (2010) analysis of the emergence and history of the English suffix *-ee*, as in *employee*. She argues that the suffix arose from the reanalysis of French borrowings, especially in legal language, but was subsequently used much more widely. It has often been proposed that a similar historical development occurred for neoclassical word formation. Words such as *morphology* and its cognates in many languages consist of components that have a recognizable Ancient Greek origin, but the full word does not occur in Ancient Greek.

Individual contributions to the workshop discuss questions such as how the competition between naming procedures is decided in a particular language, which arguments can be used to choose

between competing analyses, and how in a particular language contact situation borrowing and word formation may feed each other.

References

Durkin, Philip (2009), *The Oxford Guide to Etymology*, Oxford: Oxford University Press.

Lieber, Rochelle & Štekauer, Pavol (eds.) (2009), *The Oxford Handbook of Compounding*, Oxford: Oxford University Press.

Lieber, Rochelle & Štekauer, Pavol (eds.) (2014), *The Oxford Handbook of Derivational Morphology*, Oxford: Oxford University Press.

Mühleisen, Susanne (2010), *Heterogeneity in Word-Formation Patterns: A corpus-based analysis of suffixation with -ee and its productivity in English*, Amsterdam: Benjamins.

Pöckl, Wolfgang (2016), '*Traduire, traduction, traductologie, interprétation, interprète* etc.: Un aperçu historique de la terminologie en usage dans les langues romanes', in Albrecht, Jörn & Métrich, René (eds.), *Manuel de traductologie*, Berlin: de Gruyter, pp. 11-27.

Svensén, Bo (2009), *A Handbook of Lexicography: The Theory and Practice of Dictionary-Making*, Cambridge: Cambridge University Press.

Loan word-formation in minority languages: Lexical strata in Titsch and Töitschu

Livio Gaeta & Marco Angster

(University of Turin & University of Zadar)

Titsch and Töitschu are Alemannic dialects spoken in two Walser enclaves in Aosta Valley, respectively Gressoney (GR) and Issime (IS) (cf. Zürrer 2009). These languages are exposed to language shift given their intense contact with Italian, Piedmontese, French and Francoprovençal. In these villages, every speaker is at least bilingual, and many are trilingual, while the usage of Walser German is normally restricted to familiar speech situation and to an oral register. These varieties preserve a rich amount of lexical expressions testifying of the vitality of word-formation at least in the recent past. The occurring complex words can have structural correspondents in other German varieties, especially in the Swiss ones, but they often appear to have been autonomously elaborated in these enclaves. Therefore, it's difficult to distinguish recent calques based on standard and Swiss German (GR *rägeboge* 'rainbow', cf. German *Regenbogen*) from genuine local coinages (GR *rägetach* 'umbrella'; cf. German *Regenschirm*, but s. Swiss German *Rëge(n)dach* 'umbrella (joking)'). Moreover, a competition can be observed among different naming procedures which include Standard Italian, Piedmontese, French and Francoprovençal loans (cf. Author2 2012). From this viewpoint, several processes of morphological adaptation of Romance nouns (e.g., Italian *gara* 'competition, f.' > GR *garò* f., cf. *fannò* 'pan, f.', German *Pfanne*) and verbs (French *remercier* 'to thank' > IS *rémmursi-urun*, cf. *chalb-urun* 'breeding of cows' from *chalb* 'calf') via native suffixes can be observed. Furthermore, similar processes of adaptation take place in compounding where – at least in Issime – loan compounds display the left-headed structure typical of Romance in neat contrast with the Germanic right-headed compounds: It. *sacchetto di carta* 'paper bag, lit. bag of paper' > IS *taski pappir* 'paper bag, lit. bag paper' vs. IS *pappirgeeld* 'banknote, lit. paper money'. On the basis of a large lexical repertoire resulting from the ongoing project DiWaC, data extracted from dictionaries and

text corpora of Titsch and Töitschu will be presented with the aim of evaluating the weight of native and loan patterns in these multilingual communities.

References

Angster, Marco (2012), "Isolamento e contatto. Stratigrafia del lessico dei Walser meridionali dai dati del PALWaM", *Bollettino dell'Atlante Linguistico Italiano*, III serie, 36, 155-200.

DiWaC = *A Digital archive to safeguard the Walser Cultural and linguistic heritage*, available at http://www.diwac.it/.

Zürrer, Peter (2009) *Sprachkontakt in Walser Dialekten. Gressoney und Issime im Aostatal (Italien)*. Stuttgart: F. Steiner.

Examining the integration of borrowed nouns in immigrant speech: the case of Canadian-Greek

Vasiliki Makri, Vasia Mouchtouri & Angela Ralli
(University of Patras)

This presentation investigates noun borrowing in a language-contact situation involving Greek as recipient and English as donor in Canada. In line with Ralli (2012 a, b) and Ralli et al. (2015), we argue that the accommodation of loan nouns in a language is not only the product of extra-linguistic factors (e.g., among others, degree of bilingualism, Thomason 2001, Matras 2009) but also follows and heavily depends on specific linguistic constraints, mostly due to language-internal factors, which are of phonological, morphological and semantic nature.

By examining the integration of English nouns in Canadian Greek, we deal with the following issues: (a) the reason why a considerable number of loan nouns bear Greek inflection (1-5) - in addition to other nouns whose integration necessitates a derivational suffix (6) - in contrast with others which remain uninflected (7); (b) the basic properties of gender assignment which makes loan nouns to be accommodated in the recipient language as masculine, feminine or neuter, depending on the case, in alignment to Greek gender properties, where a tripartite gender distinction characterizes nouns, adjectives and determiners, but in opposition to the donor language (English), which is a grammatically gender-neutral language retaining features relating to natural gender; (c) the recipient's inherent tendencies to classify native and loan nouns into different categories and distribute them into specific inflection classes; (d) the high degree of integration evidenced by loan nouns which are also attached a derivational suffix on a further stage of integration (8-9); (e) the role of structural (in)compatibility between the donor and the recipient into accommodating nouns.

In order to illustrate arguments and proposals, we investigate evidence from Greek spoken in two Canadian provinces, Quebec and Ontario, where the bulk of Greek immigrants reside. For an illustration, consider the following data, which are drawn from both written (e.g., among others, Aravossitas 2016, Maniakas 1991, Seaman 1972) and oral sources, within the framework of the Project "Immigration and Language in Canada: Greeks and Greek-Canadians":

	Canadian Greek	**English**	**Greek**
(1)	bosis. MASC	boss	afediko. NEU
(2)	leki.NEU	lake	limni.FEM
(3)	vakesio. NEU	vacation	δiakopes. FEM.PL

(4)	mapa. FEM	mop	skoupa. FEM
(5)	fritza. FEM	fridge	psiɣio. NEU
(6)	basatzis. MASC	bus driver	leoforiatzis. MASC
(7)	futbol. NEU	football	poδosfero. NEU
(8)	karo. NEU > karaki. NEU.DIM	small car	aftokinitaki. NEU.DIM
(9)	marketa. FEM > marketula. FEM.DIM	small market	aɣora. FEM. DIM

We propose that it is possible for the morphology of a language (in this case, the fusional Greek) to be affected by a linguistic system of distinct typology (i.e. the analytical English), provided that certain morphological conditions are met.

Selected References

Aravossitas, Th. 2016. *The hidden schools: mapping Greek heritage language education in Canada. Ph.D. Thesis. University of Toronto.*

Maniakas, Th. 1991. *The ethnolinguistic reality of Montreal Greeks*. Ph.D. Thesis. University of Montreal.

Matras, Y. 2009. *Language Contact*. Cambridge: CUP.

Ralli, A. 2012a. Morphology in language contact: verbal loanblend formation in Asia Minor Greek (Aivaliot). In: M. Vanhove, T. Stolz, A. Urdze and H. Otsuкa (Eds), *Morphologies in Contact*. Berlin: Akademie Verlag, 177-194.

Ralli, A. 2012b. Verbal loanblends in Griko and Heptanesian: a case study of contact morphology. *L' Italia Dialettale* LXXIII: 111-132.

Ralli, A., M. Gkiouleka & V. Makri 2015. Gender and inflection class in loan noun integration. *SKASE* 12: 422-460.

Seaman, D. 1972. *Modern Greek and American English in Contact*. The Hague: Mouton.

Thomason, S. 2001. *Language Contact: An Introduction.* Edinburgh: EUP.

Interaction between Borrowing, Inflection and Word Formation in Polish Medieval Latin

Michał Rzepiela

(Institute of the Polish Language, Polish Academy of Sciences, Kraków)

This contribution discusses the classes of words attested in Polish medieval Latin which might be interpreted both as borrowings (or loan translations) from Old Polish and products of regular Latin word formation. It aims to construct a typology of related classes in terms of a more unequivocal delimitation of the linguistic operations relevant for their development. Firstly the emphasis is placed on extra-linguistic factors. Since Latin, at least until the 16th century, was more commonly used in court than Polish but, at the same time, it was not possible to avoid Polish during the process, a particular kind of bilingualism emerged which resulted in some parallel lexico-semantic classes in both languages (which were previously unknown to Latin). The names of inheritances making reference to the kind of consanguinity can serve in this regard as an example (see the couple Pol. *dziadowizna ← dziad* and Lat. *avitas ← avus* 'goods inherited from grandfather') whereas the Latin words seem to constitute a literal translation of Polish parallel morphemes but they form at the same time a regular class of derivatives as long as Latin derivational patterns. One encounters even bigger

difficulty in the case of borrowings in the strict sense of word which might be sometimes barely identified as such due to morphological similarity between Polish and Latin word stems. Particularly relevant here is inflection, which was notably more frequent than word formation and it is especially the 1st Latin declension which was used to adapt Polish borrowings (mostly feminines) to Latin inflection. Consequently, if a given noun occurs in the nominative, one cannot be sure if it should be interpreted as a Polish gloss or an already assimilated Latin word, unless this noun takes an inflected form, see both Pol. and Lat. nominative *beczka* 'barrel' vs. accusative: Pol. *beczkę* and Lat. *beczkam*. A competition between borrowing and word formation seems to be relevant as well when the derivatives from the borrowed Polish words establish in Latin a parallel lexico-semantic class to an already existing Polish one. The paper points out the importance of analogy as a factor bringing into existence the lexical couples examined and tries (following the principles of contrastive linguistics) to isolate in both languages the semantic niches i.e. 'group of words kept together by formal and semantic criteria and extensible through analogy' (Hüning 2009). The study is merely based on the data taken from the *Lexicon mediae et infimae Latinitatis Polonorum* (the Dictionary of Medieval Latin from Polish sources) and from the electronic corpus *eFontes mediae et infimae Latinitatis Polonorum*. It tries to enrich, particularly as for methodological approach, the previous studies (Weysenhoff-Brożkowa, 1991; Rzepiela, 2005) dealing somewhat with the discussed issue.

References

Fruyt, M. 2000, "La création lexicale : généralités appliquées au domaine latin". In *La création lexicale en latin ...* Paris, PUPS, Collection Lingua Latina, pp. 11-48.

Hüning, M. 2009, "Semantic niches and analogy in word formation", *Languages in Contrast* Vol. 9:2 pp. 183-201.

Rzepiela, M. 2005, "Les néologismes créés par suffixation dans le latin polonais", *Archivum Latinitatis Medii Aevi*, tom 63, pp. 35-44.

Stotz, P. 2000, *Handbuch zur lateinischen Sprache des Mittelalters, Zweiter Band : Bedeutungswandel und Wortbildung*, Verlag C.H. Beck München.

Weyssenhoff-Brożkowa, K. 1991 *Wpływ polszczyzny na łacinę średniowieczną w Polsce* [The Influence of Polish on Medieval Latin], Kraków.

Słownik łaciny średniowiecznej w Polsce (Lexicon mediae et infimae Latinitatis Polonorum) red. M. Plezia, K. Weyssenhoff Brożkowa, M. Rzepiela, Wrocław 1953 -

Elektroniczny korpus łaciny średniowiecznej na ziemiach polskich (*eFontes mediae et infimae Latinitatis Polonorum*), ISSN 2300-5734, http://scriptores.pl/efontes/

Verbal prefixation in (post-)medieval English: Directionality, analogy, and borrowing

Stefan Thim

(University of Vienna)

Historical accounts of English word formation tend to present neat unidirectional paths of development of derivational affixation in the language. Thus Old English is presented as the period where native prefixation thrives and the subsequent periods are said to be characterised by a dramatic decrease in native word formation, both with regard to the inventory of native affixes and with regard to their role in forming new words. By the Middle English period the fate of the native prefixes is

commonly presented as sealed (Kastovsky 1992, Sauer 2010). For the loss of these prefixes in Middle English different phonetic, prosodic and semantic explanations have been put forward (Lutz 1997, Dietz 2004, Molineaux 2012) but there is general agreement that many of the prefixes are considerably weakened already towards the end of the Old English period. And although most of the borrowed Romance prefixes can clearly be shown to belong to different functional domains (Adamson 1999) the subsequent 'depletion' of the language of native prefixes is traditionally seen as connected to the influx of borrowed prefixes from French and Latin (Burnley 1992, Sauer 2013), whilst more recently it has been discussed as an instance of analytic drift in the domain of the lexicon (Haselow 2011).

This paper will argue that such accounts are by no means satisfactory. Although it is well known that the Old English verbal prefixes ultimately derive from free spatial particles (Los et al. 2012, Thim 2012) it has been widely ignored that the Middle English period also witnesses the rise of a number of new native verbal prefixes, in particular down-, out-, up-. In Marchand (1969) and later accounts these are treated as verbal compounds, but their phonological, morphological and semantic properties clearly show that at least some of them become prefixes in post-Conquest English. Using data from OED3, the MED, the Penn-Helsinki Parsed Corpus of Middle English and additional evidence from Middle English poetry the paper will show the development to be the result of the interaction of various linguistic subsystems (Noel Aziz Hanna 2013) and discuss implications for the typological and long-term diachronic perception of English word formation. There will be a special focus on the relation of out- and Latinate ex-, and it will be shown that beside native analogues the pattern provided by Romance borrowings played a major part in the emergence of the new prefix.

References

Adamson, Sylvia. 1999. "Literary Language". In: *The Cambridge History of the English Language III: 1476–1776*, ed. Roger Lass. Cambridge: Cambridge UP. 539–653.

Burnley, David. 1992. "Lexis and Semantics". In: *The Cambridge History of the English Language II: 1066–1476*, ed. Norman Blake. Cambridge: Cambridge UP, 409–499.

Haselow, Alexander. 2011. *Typological Changes in the Lexicon: Analytic Tendencies in the History of English Noun Formation*. Berlin: Mouton de Gruyter.

Kastovsky, Dieter. 1992. "Semantics and Vocabulary". In: *The Cambridge History of the English Language I: The Beginnings to 1066*, ed. Richard Hogg. Cambridge: Cambridge UP, 290–408.

Los, Bettelou, Corrien Blom, Geert Booij, Marion Elenbaas & Ans van Kemenade. 2012. *Morphosyntactic Change: A Comparative Study of Particles and Prefixes*. Cambridge: Cambridge University Press.

Lutz, Angelika. 1997. "Sound Change, Word Formation and the Lexicon: The History of the English Prefix Verbs". *English Studies* 78. 258–290.

Marchand, Hans. 1969. *The Categories and Types of Present-day English Word-formation: A Synchronic-Diachronic Approach*. 2nd ed., completely revised and enlarged. München: Beck.

Molineaux, Benjamin J. 2012. "Prosodically Conditioned Morphological Change: Preservation vs Loss in Early English Prefixes". *English Language and Linguistics* 16. 427–458.

Noel Aziz Hanna, Patrizia. 2013. "On the Loss of High-Frequency Function Words". *Journal of Germanic Linguistics* 25, 1–36.

Sauer, Hans. 2010. "Old English Word-formation: Constant Features and Changes". In: *Aspects of the History of English Language and Literature. Selected Papers Read at SHELL 2009, Hiroshima*, ed. Osamu Imahayashi et al., Frankfurt am Main 2010. 19–37.

Sauer, Hans. 2013. "Middle English Word-formation: A Sketch". In: *Phases of the History of English. Selection of Papers Read at SHELL 2012*, ed. Michio Hosaka et al., Frankfurt am Main 2013, 47–68.

Thim, Stefan. 2012. *Phrasal Verbs: The English Verb-Particle Construction and its History*. Berlin: De Gruyter Mouton.

The role of borrowing in the derivation of passive potential adjectives in Polish

Maria Bloch-Trojnar

(The John Paul II Catholic University of Lublin)

The paper deals with the role of the [±native] marking in the formation of deverbal adjectives terminating in *-alny* in Polish. These adjectives correspond to *-able/-ible* derivatives in English and can be paraphrased as 'capable of being V-ed' (Bauer 1983: 28). Diachronically, the English suffix emerged under the influence of French, but synchronically, it is counted amongst the most productive. The suffix in Polish is productive, as evidenced by numerous neologisms and nonce-formations, but since only ca. 150 derivatives are listed, it must be far more constrained. According to Szymanek (2010: 105-112) the suffix is productively appended to Secondary Imperfective (SI) transitive verbs:

> *widzieć*[IPFV] 'see' – *przewidzieć*[PFV] 'predict'
> *przewidzieć*[PFV] 'predict' – *przewidywać*[IPFV(SI)] 'predict' – *przewidywalny* 'predictable'

Another constraint is that the base be [-native] (imperfective, transitive). Such verbs typically belong to the learned/scientific lexicon and bear the thematic element *-ow-*:

> *definiow̄ać* 'define' – *definiowalny* 'definable'

The research question is whether it is still necessary in synchronic terms to make reference to the [± native] specification of the base verb. It is also shown that some *-alny* adjectives are clearly modelled on their English counterparts and could be considered morphological calques:

> ***modyfikowalne*** *czynniki ryzyka chorób naczyniowo-wieńcowych*
> 'modifiable risk factors in cardio-vascular diseases'

Particular lexical items may have been borrowed, but since there is a verbal base available for each *-alny* formation, it is equally plausible to (re-)analyse them as derivatives. It is possible to delimit the set of eligible bases by making recourse to the semantico-syntactic rather than formal properties of base verbs, which points to the emergence of a truly productive derivational pattern in the system of Polish.

References
Bauer, Laurie. 1983. *English Word Formation.* Cambridge: Cambridge University Press.
Szymanek, Bogdan. 2010. *A Panorama of Polish Word Formation*. Lublin: Wydawnictwo KUL.

How an 'Italian' suffix became productive in Germanic languages

Camiel Hamans

(Adam Mickiewicz University Poznań, Poland/University of Amsterdam)

This paper discusses the interaction between borrowing and word formation. It will show how speakers of Dutch and German reanalyze disyllabic clipped forms, which are recently borrowed from American English and how they subsequently use the pattern applied in these clippings more widely, which results in a word formation process that resembles clipping as it appears in modern American English, but that can be applied more widely.

In the first part of the paper traditional monosyllabic clipping in Dutch, German and English will be discussed. In the second part the focus is on recent disyllabic clipped forms ending in unstressed -*o*, since that is where the innovation takes place. The data comes from the literature about clipping supplemented with a small corpus collected by the author via internet search.

Traditionally English and Dutch have a preference for monosyllabic clipped forms:

English	Dutch	
(1) ad(vertisement)	(2) Jap(anner)	Japanese
pub(lic house)	mees(ter)	teacher
pram (perambulaor)	luit(enant)	lieutenant
bike (bicycle)	biep (bibliotheek)	library

In German one also finds ample examples of monosyllabic 'Kurzwörter'

German
(3) Prof(essor)
Alk(ohol)
Lok(omotive)
Hoch(druckgebiet)

In contrast to Dutch in German a disyllabic pattern ending in an unstressed vowel occurs rather frequently:

(4) Abo(nnement)
Alu(minium)
Krimi(nalroman)
Mathe(matik)

Next to these patterns of clipped words one finds truncated forms followed by a suffix -*i*, which should be interpreted as a hypocoristic suffix:

(5) Schoki (Schokolade)
Pulli (Pullover)
Hunni (Hundert Euro Schein)
Spüli (Spülmittel)

Similar forms occur in English
(6) Chevvy (Chevrolet)
ciggy (cigarette)
hanky (handkerchief)
sissy (sister)

In Dutch, this type of clipped forms does not exist, probably due to the very substandard appreciation of the regional diminutive or hypocoristic suffix *-ie* (Hamans 1997b).

However, in contemporary Dutch one frequently finds disyllabic clipped forms ending in unstressed *-o*. In addition, the same new suffix may occur after full words in an informal register and with a rather strong negative connotation. Notice that the syllable before *-o* must be stressed, resulting in a (final) trochee.

(7) lesbo (lesbian)   (8) suffo   (suf 'dull')
    Limbo (Limburger)   lullo   (lul 'penis')
    Brabo (Brabander)   lokalo (lokaal 'local')
    alto (alternative)   positivo (positief 'positive')

It will be shown that the pattern behind these recently coined forms is borrowed from modern American English, were one finds examples such as:

(9) commo (commissary)   (10) weirdo
    garbo (garbage man)   sicko
    journo (journalist)   pinko
    Salvo (Salvation Army soldier) wino

Via popular music and popular media language this recent American (and Australian) English word formation process, which most likely originated from an Italo-English immigrant vernacular, has become part of Dutch youngster's language. A few words have been borrowed directly into Dutch, where they were reanalyzed and gave rise to a Dutch word formation process, which can be applied more widely than in American English, see for instance forms such as *lokalo*, *positivo*, *gewono*, *normalo* (both meaning normal person) in which the source word is not monosyllabic. Therefore, the resulting form is not restricted to disyllabicity any longer.

The same occurred in German, however the productivity of this clipping + suffixation process is hampered by the similar *-i* hypocoristic suffixation:

(11) Realo (Realist)   (12) Fundamentalo (fundamental)
     Anarcho (Anarchist)   Kloppo (Jürgen Klopp)

Examples from Swedish and also Polish will be presented as supporting evidence.

References

Elsen, Hilke (2011): *Grundzüge der Morphologie des Deutschen*. Berlin-Boston: de Gruyter.

Hamans, Camiel (1997a): Clippings in modern French, English, German and Dutch. Raymond Hickey & StanisławPuppel (eds.). *Language History and Linguistic Modelling. A Festschrift for Jacek Fisiak on his 60th Birthday.* Berlin/New York, Mouton De Gruyter, 1733–1742.

Hamans, Camiel (1997b): Im Westen nichts Neues: over de opkomst van een beschaafd morfeem. Ariane van Santen en Marijke van der Wal (eds.). *Taal in tijd en ruimte*. Leiden, SNL 237–245.

Hamans, Camiel (2004): The relation between formal and informal style with respect to language change. C.B. Dabelsteen & J.N. Jorgensen (eds.). *Languaging and Language Practicing*. Copenhagen, University of Copenhagen, Faculty of Humanisties. Copenhagen Studies in Bilingualism vol. 36, 168–195.

Hamans, Camiel (2012): From prof to provo: Some observations on Dutch clippings. Botma, Bert & Roland Noske (eds.), *Phonological Explorations: Empirical, Theoretical and Diachronic Issues.* Berlin: Mouton de Gruyter, 25–40.

Hinskens, Frans (2001): Hypocoristische vormen van reductievormen in het hedendaagse Nederlands. *Neerlandica extra muros* 49: 37–49.

Lappe, Sabine (2007): *English Prosodic Morphology.* Dordrecht: Springer.

Jespersen, Otto (1942): *A Modern English Grammar on Historical Principles.* Copenhagen: Ejnar Munksgaard.

Marchand, Hans (1969): *The categories and types of Present-Day English Word-Formation. A Synchronic-Diachronic Approach.* Second, completely revised and enlarged edition. München: C.H. Beck.

Mattiello, Elisa (2013): Extra-grammatical Morphology in English. Berlin/Boston: De Gruyter Mouton.

Vijver, Ruben van de (1997): The duress of stress: On Dutch clippings. Jane Coerts & Helen de Hoop (eds.), *Linguistics in the Netherlands 1997.* Amsterdam: John Benjamins: 219–230.

The suffixes *-ismus* and *-ita* in nouns in Czech: borrowing or derivation?

Magda Ševčíková

(Charles University, Prague)

In the present paper, the boundary between borrowing and word formation (particularly, derivation) is studied on the example of the suffixes *-ismus* and *-ita*, which occur in nouns in Czech;[28] they correspond to the English suffixes *-ismus* and *-ity* (or to *-ismus* and *-ität* in German etc.).

First, formal (both inflectional and derivational) and semantic features of nouns with the suffixes *-ismus* and *-ita* are introduced. Based on large corpora of Czech (Křen et al. 2015), the suffix *-ismus* is involved mainly in nouns with a loan base (*impresionismus* 'impressionism'), rarely with Czech appellatives (*sedlačismus* 'peasantism') and with person names of both Czech and foreign origin (*kafkismus* 'Kafkaism'). Exceptionally, it is used with phrasemes like *jánabráchismus* (lit. 'me-to-my-brother-ism' with the meaning of mutual backscratching), or it is part of so-called suffixoids in compounds (cf. *-holismus* in *čokoholismus* 'chocoholism'). The nouns with *-ismus* express qualities (ex. (1)), things having a certain quality (plural is possible in the latter meaning only, see (2)), and art, intellectual, political, or religious movements (*fauvismus* 'fauvism', *liberalismus* 'liberalism'). The suffix *-ita* is combined with foreign bases exclusively; it is limited to the meaning of qualities (3) and things having a quality (see the plural form in (4), similarly to ex. (2)). As parts of names of qualities, *-ismus* and *-ita* compete with Czech suffixes such as *-ost* or *-ství/ctví*; cf. (5). The competition between these suffixes will be described in the paper.

(1)   *naivismus dřevorytů* 'naivity of woodcuts'
(2)   *překlad s mnoha anglicismy* 'translation with many Anglicisms'
(3)   *zbytečná duplicita výkladu* 'unnecessary duplication of interpretation'
(4)   *duplicity v sítích* 'duplications in networks'
(5)   *intelektualismus* vs. *intelektualita* vs. *intelektuálnost* vs. *intelektuálství*
         'intellectualism / intellectuality'

Nouns with the suffixes *-ismus* and *-ita* allow to be interpreted both as borrowing and derivation in accordance with the derivational system of Czech and its theoretical description (Dokulil et al. 1986). In the main part of the paper, arguments for both interpretations are discussed.

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[28] The suffix *-ita* in feminine nouns is analyzed here.

As most nouns with *-ismus* and *-ita* have a foreign base, they have direct counterparts in foreign languages. This fact speaks in favor of borrowing: the nouns have been integrated into the Czech lexicon and adopted morphological categories of Czech nouns. Though Czech bases occur only in nouns with *-ismus*, they deserve – as counterexamples – special attention. The nouns with Czech bases have a low (both type and token) frequency in corpus data and are strongly stylistically marked; however, as this derivational model seems to be productive, the suffix *-ismus* might be considered a part of the derivational system of Czech. A detailed analysis is paid to the position of the nouns with *-ismus* and *-ita* within groups of words with the same bases; e.g. *intelektualismus* and *intelektualita* in relation to *intelektuální* 'intellectual', *intelektuál* 'an intellectual', *intelektuálně* 'intellectually', *intelekt* 'intellect'. If we prefer to model the inner structure of these groups in the same way as related groups with native bases and/or suffixes (constructing derivational paradigms as discussed by Štekauer 2014), the nouns with *-ismus* and *-ita* are considered as derived from the particular adjectives (i.e. from *intelektuální* 'intellectual' in the example); the interpretation of the suffixes as taking an active part in Czech derivation seems to be more advantageous in this respect.

References

Dokulil, M. et al. (1986): *Mluvnice češtiny 1. Fonetika, fonologie, morfonologie a morfematika, tvoření slov*. Praha: Academia.

Křen, M. et al. (2015): *SYN2015: A representative corpus of written Czech*. Prague: Institute of Czech National Corpus, Faculty of Arts, Charles University. Available at WWW: http://www.korpus.cz

Štekauer, P. (2014): Derivational paradigms. In: R. Lieber – P. Štekauer (eds.) *The Oxford Handbook of Derivational Morphology*. Oxford: Oxford University Press, pp. 354–369.

Borrowing and loanword formation in German

Carmen Scherer
(University of Mainz)

Borrowing is a simple and convenient option to enrich the lexicon of the recipient language. Still, borrowing in German does not only serve as a source of new lexical items, it also constitutes an important reservoir for (loan)word formation. However, non-native morphemes such as *thek* or *-abel* are not borrowed as such, they are rather the result of mindful speakers dissecting borrowed words: Loans such as *Bibliothek* 'library' or *variabel* 'variable' may be submit to reanalysis and segmentation thus leading to the extraction of – typically bound – morphemes such as *thek* or *-abel*. Subsequently, these non-native morphemes may serve as a basis for (loan)word formation processes. However, morphemes such as *thek* and *-abel* differ with respect to their word formation properties. Whereas neoclassical morphemes such as *thek* or *graph* may be combined with derivational affixes, e.g. *graphisch* 'graphic', non-native affixes such as *-abel* or *re-* may only be combined with stems, e.g. *reanalysieren* 'reanalyze'.

In my talk, I will investigate the borrowing and/or word formation of lexical items containing either neoclassical morphemes or non-native affixes in German. The data analyzed will primarily be collected from dictionaries (DFWB) and corpora (DWDS, DTA). However, in order to study earlier stages of German as well as actual new coinings, additional material will be torn from previous research (e.g. Öhmann 1970, Öhmann/ Seppänen/Valtasaari 1953, Lüdeling/ Schmid/Kiokpasoglou 2002) and a random collection of new coinings. The focus of my data analysis will be on the nominal neoclassical morpheme *thek* originating from Greek and the verbal affix *-ier(en)* originally derived from French. Special attention will be given to the following questions: 1. Are *thek* and *-ier(en)* part of productive loanword formation processes in modern German? 2. If so, at what point is the borrowing of lexical items replaced by productive word formation?

I will argue that, in fact, both morphemes are used productively in word formation. Furthermore, I will argue that especially formations containing two morphemes of different origin, such as *gastieren* < German *Gast* 'guest' + French *-ier(en)* or Spielothek < German *spiel(en)* 'to play' + Ancient Greek *-thek,* provide evidence for productive word formation processes.

References

DFWB = *Deutsches Fremdwörterbuch* (1913-1988). Begonnen von Hans Schulz, fortgef. von Otto Basler, weitergef. im Inst. für Deutsche Sprache. Berlin: de Gruyter. Bd. 7 (1988).

DWDS = Digitales Wörterbuch der deutschen Sprache (www.dwds.de)

DTA = Deutsches Textarchiv (www.deutschestextarchiv.de).

Lüdeling, Anke/Schmid, Tanja/Kiokpasoglou, Sawwas (2002): Neoclassical word-formation in German. In: Yearbook of Morphology 2001, 253-283.

Öhmann, Emil (1970): Suffixstudien VI: Das deutsche Verbalsuffix *-ieren*. In: Neuphilologische Mitteilungen 71, 337-357.

Öhmann, Emil/Seppänen, Lauri V./Valtasaari, Kullervo (1953): Zur Geschichte des deutschen Suffixes *-ieren*. In: Neuphilologische Mitteilungen 54, 159-176.

Neoclassical compounds between borrowing and word formation

Renáta Panocová & Pius ten Hacken

(Pavol Jozef Šafárik University Košice & Leopold-Franzens-Universität Innsbruck)

In understanding the nature of neoclassical compounding, we argue that it is helpful to combine insights from two different schools of linguistic thought. From generative linguistics, we adopt the insight that all manifestations of language are ultimately based on the individual speaker's competence. From European structuralist linguistics, we take the idea that the appearance of new words, as in word formation or borrowing, is primarily based on naming needs. The perceived role of the speech community in this context is analysed by ten Hacken & Panocová (2011). The argument that word formation should be distinguished from syntax and the lexicon is formulated by ten Hacken (2013).

Two central questions that arise for neoclassical compounding are whether it constitutes a separate system and whether it is productive. We argue that what can be perceived as degrees of productivity and fluctuations in status can in fact be analysed as a consequence of differences between speakers in the same speech community. Speakers that are familiar with a domain in which neoclassical compounding is frequent, e.g. medicine, will be more likely to process new instances as rule-based

formations. This can be illustrated by a recent medical term *nutrigenomics* attested in English in 2000 (OED, 2017). Specialists will immediately identify the elements *nutri-* and *genomics* and understand the meaning of the full term 'a branch of genomics dealing with the identification of genes involved in individual responses to nutritional factors' (OED, 2017).

Considering the origins of neoclassical compounding, we note that borrowing has two different roles. On one hand, it is the reanalysis of borrowings from classical languages that leads to the emergence of a system. This can be exemplified by *cardiogram*. Both elements *cardio* and *gram* were ultimately borrowed from Ancient Greek καρδία 'heart' and γράμμα 'something written'. But *cardiogram* 'the tracing made by a cardiograph or electrocardiograph' was only attested in 1876 (OED, 2017) and cannot be traced to Ancient Greek directly. The elements are used in a number of recent formations such as *tympanogram* (1969), *echocardiogram* (1966), *magnetocardiogram* (1963) or *echoencephalogram* (1956). On the other hand, new formations are borrowed between different languages. For instance, in Russian, кардиограмма [kardiogramma] 'cardiogram' was borrowed at the beginning of the 20th century probably from French (ESRJ, 2004). As argued by Panocová (2015), the sole appearance of neoclassical compounds does not require a special system. A more detailed analysis of neoclassical compounds in English and in Russian suggests that only for English is there a substantial set of speakers who have a system of neoclassical compounding in their competence.

References

ESRJ (2004), *Etimologičeskij slovar' russkogo jazyka*, http://etymological.academic.ru/

ten Hacken, Pius (2013), 'Semiproductivity and the place of word formation in grammar', in ten Hacken, Pius & Thomas, Claire (eds.), *The Semantics of Word Formation and Lexicalization*, Edinburgh: Edinburgh University Press, pp. 28-44.

ten Hacken, Pius & Panocová, Renáta (2011), 'Individual and Social Aspects of Word Formation', *Kwartalnik Neofilologiczny* 58: 283-300.

OED (2017), *The Oxford English Dictionary*, Oxford: Oxford University Press, www.oed.com.

Panocová, Renáta (2015), *Categories of Word Formation and Borrowing: An Onomasiological Account of Neoclassical Formations*, Newcastle: Cambridge Scholars Publishing.

Compound calques in the 18th century German-Lithuanian dictionary

Bonifacas Stundžia
(Vilnius University)

The material for this paper is taken from a manuscript *German-Lithuanian Dictionary* by Jacob Brodowski (1011 pp.; see Drotvinas 2009) which is a rich database of German words and expressions with their Lithuanian equivalents used both in bilingual or monolingual community and in German and Lithuanian writings in the Duchy of Prussia in the 18th century. Because of the fact that the author of the Dictionary collected a large amount of spoken language data, the results of the present analysis at least partly reveal the status of compound calques of the 18th century variety of Lithuanian used in the Duchy of Prussia as well as the Germanic convergent influence on Lithuanian compounding.

The aim of the paper is to address and answer the following questions:

1. What types of compound calques (for the term see Haugen 1953: 393f.; Wohlgemuth 2009: 129) were characteristic of the 18th c. Lithuanian used in the Duchy of Prussia?

2. Does the process of borrowing (loan translation) show any efforts to integrate compound calques into the word formation system of Lithuanian?
3. How strong was a Germanic convergent influence on Lithuanian compounding?

The present research is based mostly on the description of structural patterns of compound calques used in cognate languages in contact having similar morphological structure including that of nominal compounds.

The expected results of the research in hand can be summarized as follows:

1. Only two-stem compound calques are characteristic of the dictionary by Brodowski (two-stem structure is a characteristic feature of composition in Lithuanian).
2. Establishment of the coexistence of two different patterns of two-stem compound calques from the point of view of their integration into the word formation system of Lithuanian.

   2.1 Compounds which are fully integrated into word formation system by generalizing declensions *-is* (masc.) and *-e* (= stand. Lith. *-ė*, fem.), which are characteristic of Lithuanian nominal compounding, e.g. *skir-kel-is* 'crossroad' (from *skir-ti* 'to separate' and *kel-as* 'road') ← *Scheid-weg*; *karal-żaisl-is* 'chess, lit. king's toy' (from *karal-us* 'king' and *żaisl-as* 'toy') ← *Koenigs Spiel*; *besd-ůg-es* (pl.) 'elderberries' (from *besd-as* 'elder' and *ůg-a* 'berry', pl. *ůg-os* 'berries') ← *Hollunder Beeren*;

   2.2 Compounds which are only morphologically adapted and not integrated into the word formation system, i.e. they do not include changes in the morphology of the second member of compounds with declensions *-as, -us* (masc.), and *-a* (fem.), e.g. *wyn-kaln-as* 'vineyard, lit. wine's mountain' (from *wyn-as* 'wine' and *kaln-as* 'mountain') ← *Wein-berg*; *malun-rat-as* 'millwheel' (from *malun-as* 'mill' and *rat-as* 'wheel') ← *Muehl-rade*; *balwon-altor-us* 'idol's altar' (from *balwon-as* 'idol' and *altor-us* 'altar') ← *Goetzen Altar*; *atlaid-gromat-a* 'letter of release' (from *atlaid-a* 'release' and *gromat-a* '(official) letter') ← *Erlassjahr Brief*;

3. Establishment of a competition between the two patterns, e.g. *skers-wagg-is // skers-wagg-a* 'cross-furrow' (from *skers-as, -a* [adj.] 'cross' and *wagg-a* 'furrow') ← *Quer Furche*; *pażand-kaul-is // pażand-kaul-as* 'jawbone' (from *pażand-e* 'jaw' and *kaul-as* 'bone') ← *Kinn Backen*; *kiaul-ůg-es* (pl.) *// kiaul-ůg-a* (sg.) 'lit. pig's berries/ berry' (from *kiaul-e* 'pig' and *ůg-a* 'berry', pl. *ůg-os* 'berries') ← *Schwein Beeren/ Beere*. The said competition shows an ongoing development towards integration of two-stem nominal compound calques into the word formation system of the 18th c. Lithuanian.

The following facts show that a convergent Germanic influence on Lithuanian compounding in the 18th century was not strong:

a) the existence of only two-stem compound calques in the dictionary by Brodowski;
b) a tendency towards full integration of compound calques into the word formation system of Lithuanian;
c) the rendering of German compounds in most cases by non-compounds in Lithuanian.

References

Drotvinas, Vincentas (ed.). *Jokūbas Brodovskis. Lexicon Germanico-Lithvanicum et Lithvanico-Germanicum*. Manuscript dictionary of the 18th century. Documentary edition containing a facsimile, transcript and word register. Vol. 1-3. Vilnius, 2009.

Haugen, Einar. The process of borrowing. In: Idem. *The Norwegian Language in America*. Vol. 2. Philadelphia, 1953, p. 383-411.

Wohlgemuth, Jan. *A Typology of Verbal Borrowings*. Berlin-New York, 2009.

Borrowed roots, borrowed compounds – Portuguese data

Alina Villalva

(Faculdade de Letras da Universidade de Lisboa)

The Portuguese lexicon has a Latin matrix, complemented by a fuzzy set of traces from substrata languages (namely Basque and Phoenician) and a roughly documented contingent of vocabulary from Germanic and Arabic superstrata. From Renaissance to the 18th century, the Portuguese lexicon was reshaped by a literary Latin source, either directly by the hand of writers, scholars, and translators (cf. Carvalho 1984, Silva 1931), or indirectly, mainly by the adoption of Castilian words brought up to light by an identical intervention (cf. Castro 2011).

A similar process took place from the 17th century onwards, now mostly based on an Ancient Greek lexical heritage (hence the name of neoclassical roots for these loans). This new source of lexical enrichment is not bound to the political borders of any given language – it is a process shared by all the languages that used Latin for scientific writings. These borrowings usually correspond to Ancient Greek (and sometimes Latin) clippings that brought ancient words back to life, centuries after their original existence and in a different language, as semantic equivalents to vernacular words. These clips form a kind of parallel lexicon that is easy to accommodate in any of the above-mentioned languages.

In this paper, I will mostly look into Portuguese data (cf. Villalva & Silvestre 2014), though probably no major differences are likely to be found in other languages. This paper's underlying research is based on the framework of morphological analysis presented by Villalva & Gonçalves (2016) and the typology of Portuguese roots drawn by Villalva & Silvestre (2014).

Portuguese so-called neoclassical roots behave quite differently from vernacular roots. In fact, they display a quite systematic complementary distribution: the latter are used in simple words derivatives and compounds (cf. 1a), the former occur in neoclassical derivatives and compounds (cf. 1b-1c); vernacular roots are predominantly language specific, even though they may share a common origin (cf. 1a), neoclassical roots are frequently shared by different languages (cf. 1b-1c):

(1)   a.   vernacular root *peix-* *peixe* Eng. *fish*, Fr. *poisson*
                vernacular root derivatives   *peixeiro*   Eng. *fishmonger*, Fr. *poissonier*
                vernacular word compounding *peixe-espada*   Eng. *swordfish*, Fr. *espadon*

        b.   Latinate root *pisc-*
                derivatives from the Latinate root   *piscine* Eng. *swimming pool*, Fr. *piscine*
                compounds from the Latinate root   *piscicultura* Eng. *fish farming*, Fr. *pisciculture*

        c.   Hellenistic root *icti-*
                derivatives from the Hellenistic root   *ictiose* Eng. *ichthyosis*, Fr. *ichthyose*
                compounds from the Hellenistic root   *ictiofobia* Eng. *ichthyophobia*, Fr. *ichtyophobie*

Derivation is a quite familiar word formation process in Romance languages, hence also in Portuguese. Neoclassical derivation merely comprises a set of recently introduced suffixes (such as *–ose*, in *ictiose*, or *–ite*, in *rinite* 'rhinitis'), but these suffixes quickly acquire the capacity to select vernacular bases (cf. *avari(a)* 'damage'-> *avariose* 'syphilis'; *amendoim* 'peanut' -> *amendoinite* 'stomach pain due to an exaggerated ingestion of peanuts'). So, in time, neoclassical affixes became normal affixes.

Neoclassical compounding is fairly different. The adjunction of a root to another root is well known since Vulgar Latin, by means of prefixation. The set of prefixes includes the diachronic output of Latin and Ancient Greek prepositions, adverbs and eventually adjectives. Neoclassical compounding added nouns to this list, but from a structural and functional point of view they're not that diverse:

(2)   a.   *subcave* 'subbasement'   *cave* 'basement'
       b.   *hipónimo* 'hyponym'

So, the introduction of this 'innovative' word formation resource may have found a smooth path into the Portuguese language through the similarity with prefixation, but, most probably, it was the afflux of neoclassical compounds coming from other languages that helped to consolidate its conformity to Portuguese. In fact, modern intellectuals and scientists have probably found neoclassical compounding rather handy to name whatever substance, phenomenon or category they discovered – spreading the knowledge entailed spreading the words. Consider the case of *psicologia* 'psychology'. It is first attested in Portuguese in the 19th century[29], but it is certainly a loan. Krstic (1964) discusses the original coinage and use of a Latin version of the word:

In technical and encyclopaedic literature one can find somewhat different information about when the word "psychology" was formed and who was the first to use it. In the main psychological and philosophical dictionaries, textbooks, and leading world encyclopaedias there are for the most part three different opinions of the origin of this term which, as the word denoting scientific or philosophic dealing with the phenomena of psychic (subjective, conscious) life, has now come into very wide use. All the three names connected with the formation of the term "psychology" are the names of the people of German origin from the 16th century. Two of them are of little significance: Rudolf Göckel and Otto Casmann, while the third is very famous and generally known: Filip Melanchton [...]
However, in a document known for years there is a detail which has unfortunately remained unnoticed until now and which fully entitles us to a complete revision of the established opinion on the first appearance of the word "psychology" in the scientific language of Europe. At least 66 years before Gockel (and also a few years before the publication of Melanchton's lectures "on the soul"), the term "psychology" was used by our great humanist, the poet of "Judita", Marko Marulic (1450-1524) in one of his Latin treatises not as yet found but whose title "Psichiologia de ratione animae humanae" is preserved in a list of Marulic's works given by the poet's fellow-citizen, contemporary, and friend Bozicevic-Natalis in his "Life of Marko Marulic from Split".

Each of these neoclassical terms tells a story, not always easy to reach and often related to epistemological issues, but in this case we may locate the appearance of the latinate word *psychologia* in central Europe, in the beginning of the 16th century. Its arrival to the Portuguese lexicon was delayed by three centuries and by a number of different languages, but it ultimately, arrived.

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[29] Silvestre Pinheiro Ferreira is the author of *Noções Elementares de Filosofia Geral e Aplicada às Ciências Morais e Políticas (Ontologia, Psicologia, e Ideologia)*, a book published in Paris, in 1839. This may be the first, or one of the first, occurrences of the word in Portuguese.

In a way, borrowed roots in borrowed compounds triggered the borrowing of a new word formation process. An early testimony is provided by the word *antroponímia*. According to etymologists (cf. Machado 1977), a Portuguese anthropologist (see Leite de Vasconcelos (1931: 3)) coined this word in 1887, to refer to the 'study of the names of human beings'. He could have used some vernacular expression, but the replacement of 'pessoas' by *antrop-* and 'nomes' by *onom-* was certainly meant to bring some *gravitas* to this recent discipline. Then, according to the *Trésor de La Langue Française*, the French word *anthroponimie* was borrowed from the Portuguese word - the same may have happened in other languages.

Finally, the vitality of neoclassical compounding in Portuguese is sustained by compounds that use vernacular roots, such as *raticida* 'rat poison' or *luso-descendente* 'descendent of Portuguese'. Thus, neoclassical compounding made way to the rise of a new word formation process - morphological compounding. I will talk about these compounds, particularly regarding the preservation of the phonetic individuality of each root and of the linking vowel, and also the fact that the choice of the linking vowel ([ɔ] vs [i]) is interconnected with the syntactic type of the structure and the etymology of the roots.

References

ATILF = CNRS (2016) *Le Trésor de la Langua Française Informatisé*. URL: http://atilf.atilf.fr/dendien/scripts/tlfiv4/showps.exe?p=combi.htm;java=no;

Carvalho, J. G. H. de (19849 Contribuição de *Os Lusíadas* para a renovação da língua portuguesa. In *Estudos Linguísticos* III (77-125). Coimbra.

Castro, I. (2011) A língua de Camões. In V. A. e Silva, ed. (2011) *Dicionário de Luís de Camões* (461b-469a). Lisboa: Caminho.

Krstic, K. (1964) Marko Marulic -- The Author of the Term "Psychology". *Acta Instituti Psychologici* Universitatis Zagrabiensis 36 (7-13). [http://psychclassics.yorku.ca/Krstic/marulic.htm].

Leite de Vasconcellos, J. (1931). *Opuscúlos. III. Onomatologia.* Coimbra: Imprensa da Universidade. [http://cvc.instituto-camoes.pt/conhecer/biblioteca-digital-camoes/etnologia-etnografia-tradicoes.html].

Lüdeling, A. (2005) Neoclassical word-formation. [http://edoc.hu-berlin.de/oa/bookchapters/reh PAFQQrDr6A/PDF/26OqlnUAo7rtE.pdf].

Machado, J. P. (1977) *Dicionário Etimológico da Língua Portuguesa.* Lisboa: Livros Horizonte.

Silva, C. E. C. (1931) *Ensaio sobre os latinismos dos Lusíadas*. Coimbra: Imprensa da Universidade [https://archive.org/details/CORREADASILVAENSAIOSOBREOSLATINISMOSDOSLUSIA DAS].

Villalva, A. & C. A. Gonçalves (2016) The phonology and morphology of word formation. In Leo Wetzels, Sergio Menuzzi & João Costa, eds. (2016), *Handbook of Portuguese Linguistics*. Wiley-Blackwell.

Villalva, A. & J. P. Silvestre (2014). *Intodução ao Estudo do Léxico. Descrição e Análise do Português*. Petrópolis: Vozes.

(Pseudo-)Anglicisms as new classificatory and naming compounds in Italian

Silvia Cacchiani
(University of Modena and Reggio Emilia)

Over the last decades, speakers of Italian as a receiving language have become the agent of borrowing (Winford 2010) from socio-culturally dominant English (Matras 2009). Whereas the core vocabulary of Italian comprised very few Anglicisms in the 1980s, all earlier borrowings, more recent Anglicisms from the 1950s and newer words have now gained ground among the most frequent words of the Italian core vocabulary (De Mauro 2016), standard Italian and media language in particular (e.g. Dardano 1986; Adamo, Della Valle 2006, 2009; Iacobini 2015, Cacchiani 2016).

Importantly, words that entered Italian as compounds in the 19th and early 20th century have been reintroduced or used on a large scale and reduced to their left-most constituent in the sixties (e.g. *nightclub/night*, *water closet/water* /ˈvater/). Popular borrowings from the early sixties only retain their left-most constituent, for example *scotch* (< En. *scotch tape*), which has actually caused one casualty (It. *nastro adesivo*) in its shift from En. complex Name/classificatory Noun into a simplex Noun in Italian. And, third, more recent borrowings retain both constituents and may coexist with loan translations and reductions to the left constituent in Italian. Some examples are It. *(il) jazz*, *pop*, *punk (rock)* (for trends and cultural movements) and, since the 80s, *(la) dance*, *la musica dance* or *la dance music*, and classificatory examples such as *kitesurf/kite* and *windsurf* (where reduction to **il wind* is barred from *wind* in standard Italian).

Coining of pseudo-Anglicisms in Italian appears to be at least partly contact-induced. Examples here are complex nominal pseudo-Anglicisms such as *tenager* (<*ten + teenager*, for *tween*; 2015; occasionalism), or *baby park* (also *Baby park*); and, for trademarks, brand names and the likes, *slow food* (1996; paradigmatically related to *fast food*), *Stefanel Kids*, *Foto discount*, *Halloweek* (2016). In this context, we shall carry out a primarily qualitative investigation into recent and new (pseudo-)Anglicisms as (extra-)grammatical compounds (Masini, Scalise 2012; Radimský 2015) in Italian. More specifically, it is our purpose to assess whether and to what extent institutionalized core vocabulary and frequent Anglicisms (e.g. *baby*, *boy*, *city*, *day*, *point*, *story*; backformations such as *cine* or *foto*) form series of analogues with similar semantics (see Jackendoff 2009, 2010), which specify given schemas and subschemas (Booij 2010). The focus is onto recent and new (extra-)grammatical compounds intended for naming (Anderson 2007) and/or classificatory purposes, generated for use in media language and the press in particular (Adamo, Della Valle 2006, 2009; *Neologismi Treccani online*, *Osservatorio neologico della lingua italiana*; *Nuovo De Mauro*, *loZingarelli2017*, *il Devoto-Oli digitale 2017*, *Vocabolario Treccani*) as well as in marketing, e.g. for registered trade marks and copyrights (*Ufficio italiano brevetti e marchi*, or the Italian Intellectual Property Office).

> # WORKSHOP 24

Vowel reduction and loss and its phonological consequences

Cormac Anderson & Natalia Kuznetsova

(Department of Linguistic and Cultural Evolution, Max Planck Institute for the Science of Human History, Jena & Institute for Linguistic Research, Russian Academy of Sciences, St. Petersburg)

Vowel reduction and loss is a cross-linguistically frequent phenomenon, but its full typological properties are yet to be discovered. In many language descriptions, this phenomenon is simply stated as a fact, with little further interrogation of its causes, phonetic mechanisms or consequences. However, ongoing reduction can be a challenge for the synchronic phonological description of a language, especially a non-standardized one without a literary tradition. For some major language groups (Slavic, Romance, Germanic, Greek, Finno-Ugric) there exists a long and active tradition of phonetic and phonological research on reduced vowels, within which their phonotactic properties, acoustic features and relation to stress and full vowels have been studied.

Works taking a cross-linguistic and general theoretical approach to vowel reduction and loss are scarce. There are few comparative phonetic studies in this field (but see Delattre 1969, Loporcaro 2015). Existing phonological surveys (Crosswhite 2001, 2004, Barnes 2006) mostly tackle qualitative, but not quantitative reduction. Vowel reduction is typically defined as the positional neutralization of a vowel contrast in unstressed positions. However, reduction does not necessarily result in neutralization. For example, a contrast of long and short vowels can be transformed into a contrast of reduced and short vowels. Not yet enough is known about the exact changes in the structure of a phonetic pool of variation during ongoing reduction, as well as the correlation between production and perception/categorization of reduced vowels (cf. van Bergem 1995, Verkhodanova and Kuznetsova 2016 exploring this topic). How exactly does shrinkage of the overall vowel space typically take place (cf. Padgett and Tabain 2005)?

Much work remains to be done on the typology of the consequences for phonology and morphology of vowel reduction and loss. It is not yet fully understood what types of vocalic systems are likely to emerge in languages which have undergone strong reduction and/or widespread loss of vowels (see for example the survey of minimal vowel systems in Anderson 2016). Which types of consonantal systems can emerge as a result of this? For example, what effects might this have in terms of the development of secondary localisation or changes in laryngeal features? One can also ask why, under the same phonetic conditions, we often observe asymmetries in the outcomes of the loss of vowels of different quality (as in Russian or Irish).

There is also still no consensus about the physiological origins and phonetic mechanisms of vowel reduction. Is formant undershoot always a function of decrease in vowel duration (as suggested in Lindblom 1963)? Is there a conflict between the need to reduce prominence and the need to enhance contrast or not (Crosswhite 2001, Harris 2005)? One could also discuss the balance between the speaker, who wants to communicate quickly and with little effort, and the listener, who needs enough information to process the message, during the course of reduction (cf. Trudgill 2009).

The workshop aims to address these issues. We especially invite papers which interrogate the phenomena of vowel reduction and loss in a cross-linguistic and/or general theoretical perspective. The topics include, but are not limited to:
— the phonetic causes and mechanisms of vowel reduction and loss;

— the phonological contexts in which it is most likely to occur;

— the typical and atypical trajectories of vowel reduction and systematic constraints which favour reduction or prevent it from occurring;

— typological, areal, or diachronic explanations for the cross-linguistic distribution of reduction;

— asymmetries in the reduction and loss of vowels of different quality;

— perception and categorisation of reduced vowels by L1 and L2 speakers;

— challenges for the description of languages with ongoing vowel reduction;

— the consequences of vowel reduction and loss for phonology and morphology (the gain and loss of phonemic contrasts, innovative phonotactic patterns and morphonological alternations).

References

Anderson, C. 2016. Consonant colour and vocalism in the history of Irish. PhD thesis, ms. Poznań: Adam Mickiewicz University in Poznań.

Barnes, J. 2006. Strength and weakness at the interface. Berlin: Mouton de Gruyter.

van Bergem, D. R. 1995. Perceptual and acoustic aspects of lexical vowel reduction, a sound change in progress. In: Speech Communication 16, 329-358.

Crosswhite, K. 2001. Vowel reduction in Optimality Theory. New York & London: Routledge.

Crosswhite, K. 2004. Vowel reduction. In: B. Hayes, R. Kirchner, and D. Steriade (eds.). Phonetically based Phonology. Cambridge: Cambridge University Press, 191–231.

Delattre, P. 1969. An acoustic and articulatory study of vowel reduction in four languages. In: International Review of Applied Linguistics in Language Teaching, 7(4), 295-325.

Harris, J. 2005. Vowel reduction as information loss. In: Ph. Carr, J. Durand and C. J. Ewen (eds.). Headhood, elements, specification and contrastivity. Amsterdam: Benjamins. 119–132.

Lindblom, B. 1963. Spectrographic study of vowel duration. In: The Journal of the Acoustical Society of America 35 (11), 1773-1781.

Loporcaro, M. 2015. Vowel length: From Latin to Romance. Oxford: Oxford University Press.

Padgett, J. and M. Tabain. 2005. Adaptive dispersion theory and phonological vowel reduction in Russian. In: Phonetica 62, 14-54.

Trudgill, P. 2009. Greek dialect vowel systems, vowel dispersion theory, and sociolinguistic typology. In: Journal of Greek Linguistics 9, 80-97.

Verkhodanova V. and N. Kuznetsova. 2016. Difference in development of consonantal palatalization and labialization: Evidence from the Finnic varieties of Ingria. In: 49th Annual Meeting of the Societas Linguistica Europeae: Book of Abstracts. Napoli, 445-446.

Vowel shift and the rise of neutralization in North Russian

Alexander Krasovitsky
(University of Oxford)

The paper investigates diachronic mechanisms leading to the rise of vowel reduction and to the deterioration of phonological contrasts in North Russian, one of the two major Russian regional varieties. One example is the transition from consistent discrimination of low and mid vowel phonemes, /a/ and /o/, to their obligatory neutralization in unstressed syllables, a development previously unattested in North Russian (e.g. Avanesov & Bromlej 1986; Vaahtera 2009). Due to the rapid nature of this change, we find dialects where different diachronic stages are presented as

synchronic variation across speakers: archaic idiolects with a discrimination of low and mid vowels, as in (1), co-exist with innovative individual systems where neutralization is obligatory in unstressed positions, as in (2), and with transitional idiolects which present a competition between these two models.

	Stressed syllables	**Unstressed syllables**
(1) Archaic	s [a] m 'myself' masc	s [ɐ] m á OR s[ə]má 'myself' fem
	s [o] m 'cat-fish', sing.nom	s [o] m á 'cat-fish', sing. acc/gen
(2) Innovative	s [a] m 'myself' masc	s [ɐ] m á OR s[ə]má 'myself' fem
	s [o] m 'cat-fish', sing.nom	s [ɐ] m á OR s[ə]má 'cat-fish', sing. acc/gen

We investigate the rise of stress-dependent neutralization using data from a North Russian dialect spoken in the Archangelsk Region. Samples representing all three types of idiolects, archaic, transitional and innovative, have been recorded from local residents born between mid-1930s and mid-1990s and analysed with respect to (i) acoustic and articulatory properties of vowels and (ii) fluctuations in vowel duration in stressed and unstressed syllables. The analysed samples represent six individual systems (approximately 160 tokens per speaker) and are based on the same word list.

A comparative analysis of articulatory vowel space for the three types of idiolects (modelled using F1–F2 normalised average values for each vowel type) shows that a shift of articulatory zones of the phonemes /a/ and /o/ in innovative dialects is a key factor contributing to the loss of contrast in unstressed syllables. Thus, in the archaic system the articulatory zones of /a/ and /o/ are clearly separated, which ensures that the phonological contrast between the two phonemes is preserved by ruling out the possibility of a gradual transition from one articulatory zone to the other. Acoustically, this translates into a significant difference in each vowel's respective formant values and thus an obvious perceptual contrast. Idiolects which permit /a/ and /o/ neutralization in unstressed syllables are, by contrast, characterised by overlapping of the stressed allophones' articulatory zones. For a number of rounded vowels (in particular for mostly advanced outliers) this shift to the centre implies impaired labialization (Ladefoged & Maddieson 2002:358; Grawunder, Simpson & Khalilov 2010:234). This affects speakers' perception of phonological contrasts, giving rise to phonological change (Clements & Ridouane 2006) and, in combination with a considerable quantitative reduction, drives the development of neutralization in unstressed syllables. At the same time, our analysis rules out quantitative reduction as the sole factor at play, as consistent discrimination of low and mid vowels can be shown to occur in a system with a strong quantitative reduction of unstressed syllables.

References

Avanesov R. I. & S. V. Bromlej (eds). *Dialektologičeskij atlas russkogo jazyka: Centr Evropejskoj časti SSSR*. Vol. 1: Fonetika. Moscow, 1986.

Clements G. N. & Rachid Ridouane. Quantal phonetics and distinctive features: a Review. In Antonis Botinis, ed., *Proceedings of the ISCA Tutorial and Research Workshop on Experimental Linguistics*, 28-30 August 2006, 17-24. Athens: University of Athens, 2009.

Grawunder, Swen, Adrian Simpson and Madzhid Khalilov. Phonetic characteristics of ejectives – samples form Caucasian languages. // Fuhs, Susanne, Martine Tode and Marzena Żygis (eds). *Turbulent sounds. An interdisciplinary guide*. Berlin: Mouton de Gruyter, 2010.

Ladefoged, Peter & Ian Maddieson. *The Sounds of World's Languages*. Blackwell, 2002. l

Vaahtera, Jouni Mikael. 2009. *Èvoljucija sistemy glasnyx fonem v nekotoryx govorax Vologodskoj oblasti*. Slavica Helsingiensia 37. Helsinki.

Modeling vowel reduction by BiPhon – the case of Lunigiana dialects

Edoardo Cavirani

(Meertens Institute, KNAW)

Diachronically, the unstressed vowels occurring in Lunigianese dialects (Norther-Italy) first centralized and then disappeared (Cavirani 2015). When applying to word-final vowels, though, vowel reduction (VR) seems to be conditioned by morphosyntactic constraints. Indeed, depending on the dialect, the proto-Romance f.pl feature bundle, $-e_{f.pl}$, is spelled out as $-i_{pl}-a_f$, $-a_f$ or $-\emptyset$ (Maffei Bellucci 1977; Loporcaro 1994; Cavirani *in press*).

(1)   Carrarese   Colonnatese   Ortonovese   Pontremolese

phonetics   [ˈdɔn-e]   [ˈdɔn-j-a]   [ˈdɔn-a]   [ˈdɔn-∅]
                              /\   / \   \
phonology $|\underline{I}|_{pl}|A|_f$ $|I|_{pl}|\underline{A}|_f$ $|I|_{pl}|\underline{A}|_f$ $|I|_{pl}|\underline{A}|_f$
                              | | | | | | | |
morphosyntax   [N[pl[f]]]   [N[pl[f]]]   [N[pl[f]]]   [N[pl[f]]]

Assuming the minimalist perspective according to which the morphosyntactic derivation is universal and the variation resides in the Lexicon/PF (Chomsky 2001), the morphosyntactic structure of f.pl nouns can be argued to be the same in all the varieties in (1).

The difference is in the spell-out system: f and pl are spelled out syncretically in Carrarese (see Passino 2009 for a similar proposal concerning Standard Italian) and analytically in Colonnatese. Ortonovese spells out just f and Pontremolese spells out none on the noun (pl's exponent can though surface on the determiner: [l ˈɔk-a] 'the goose' *vs* [al-i ˈɔk-∅] 'the geese').

The Bidirectional Phonetics and Phonology model (BiPhon; Boersma 2011) provides the necessary formal tools, insofar as it allows a detailed formalization of (a) the phonetics-phonology interface, (b) phonologization and (c) the phonology-morphosyntax interface. The crucial components of the analysis are: (a) Structural constraints (*(N |str|)μ), which aim at simplifying element structures in unstressed nuclei (N), (b) Cue constraints ([[x Hz]] |X|), which map acoustic objects (i.e. formants) onto phonological objects (i.e. elements; Backley 2011) and (c) Phonological Recoverability constraints (express-$|X|_μ$), which favour the spell-out of a given morphosyntactic head (van Oostendorp 2007).

Under this view, the synchronic variation in (1) can be understood in terms of phonological licensing: in the *-e* case, (the floating) $|\underline{A}|_f$ and $|\underline{I}|_{pl}$ are spelled out by the same word-final nucleus. In the case of *-ja*, $|\underline{A}|_f$ and $|\underline{I}|_{pl}$ cannot be licensed by the same nucleus (because of the stage reached by this variety along the diachronic VR trajectory). As a consequence, $|\underline{I}|_{pl}$ is linked to the onset preceding the $|\underline{A}|_f$ nucleus. In the case of *-a*, the word-final nucleus cannot license a complex structure, but $|\underline{I}|_{pl}$ is not allowed to land on the preceding onset and doesn't surface (the Pontremolese case cannot be accounted for here due to space limitation).

Note that this approach possibly accounts for the Mirror Principle violation of *-ja*. Indeed, if (a) $|\underline{I}|_{pl}$ is a floating element spelling out a head that is merged after *n* (which can be considered a phase head; Marantz 2007), b) it cannot be linked to the word-final nucleus already 'saturated' by $|\underline{A}|_f$ because of its licensing deficiency and c) no other C or V slot follows the $|\underline{A}|_f$ nucleus, then $|\underline{I}|_{pl}$ has no other

chance than either failing to be linked and spelled out (Ortonovese *-a*) or landing on the preceding onset (Colonnatese *–ja*).

References

Backley P. (2011). *An introduction to element theory*. Edinburgh University Press.

Boersma P. (2011). A programme for bidirectional phonology and phonetics and their acquisition and evolution. In A. Benz & J. Mattausch (eds.), *Bidirectional Optimality Theory*. Amsterdam: John Benjamins, pp. 33-72.

Cavirani E. (2015), *Modeling phonologization. Vowel reduction and epenthesis in Lunigiana dialects*. Utrecht: LOT publishing [Dissertation, Leiden University and Pisa University].

Cavirani E. (in press), The spell-out of gender and number in Lunigiana nominal expressions. In R. D'Alessandro and D. Pescarini (eds.), Advances in Italian dialectology. Sketches of Italo-Romance grammars. Leiden: Brill Publisher.

Chomsky N. (2001). Derivation by Phase. In M. Kenstowicz (ed.), Ken Hale: *A Life in Language*. Cambridge, MA: MIT Press, pp. 1-52.

Hall N. (2006). Cross-linguistic patterns of vowel intrusion. *Phonology*, 23, pp. 387-429.

Hamann S. (2009). The learner of a perception grammar as a source of sound change. In P. Boersma & S. Hamann (Eds.), *Phonology in Perception*. Berlin: Mouton de Gruyter, pp. 111-149.

Loporcaro M. (1994). Sull'analisi del plurale femminile la dǫṇia 'le donne' nei dialetti della Lunigiana. *L'Italia Dialettale*, 57, pp. 35-42.

Maffei Bellucci P. (1977). Lunigiana. In M. Cortelazzo (ed.), *Profilo dei Dialetti Italiani*, vol. 9/1. Pisa: Pacini.

Marantz A. (2007). Phases and words. In Sook-Hee Choe (ed.), *Phases in the theory of grammar*, 191-222. Seoul: Dong In.

van Oostendorp M. (2007). Derived environment effects and consistency of exponence. In S. Blaho, P. Bye & M. Krämer (eds.), *Freedom of analysis?* Berlin: Walter de Gruyter, pp. 123-148.

Passino D. (2009). An Element-based Analysis of Italian Inflection. In F. Montermini, G. Boyé and J. Tseng (eds.), *Selected Proceedings of the 6th Décembrettes*. Somerville, MA: Cascadilla Press, pp. 63-75.

Voiceless vowels and syncope in older Indo-European?

Martin Joachim Kümmel

(University of Jena)

While vowel reduction is a well-known phenomenon in many later IE languages, it is normally considered to be less frequent in the earliest attested stages of IE (around 3000 BP), and Szemerényi's (1964) attempt at establishing many cases of "irregular" syncope was not altogether successful. However, when we look more closely into those oldest stages, we can find some rare cases of "irregular" vowel loss, always involving high vowels in the context of voiceless obstruents (especially fricatives), which could be explained by the assumption of vowel devoicing, recalling the voiceless vowels of Japanese (Tsuchida 2001) or Comanche (Armagost 1985). A more precise description and explanation of such cases has not yet been given.

In Old Iranian Avestan, etymologically expected *u* and *i* are absent in at least three words: instead of expected **xšušt(w)a-* we find *xštuua-* 'sixth', and likewise *xšma-* 'you (pl.)' for **ušma-* and *(ā/fra-*

)xšta- 'to stand' beside *hišta-* (cf. Hoffmann & Forssman 2004: 73; 184). It seems possible that the unaccented high vowels *u* and *i* have been devoiced here to such an extent that they were eventually lost, apparently conditioned by a preceding voiceless environment and a following adjacent postalveolar sibilant.

Similar cases can be found in Hittite, where complete vowel loss is otherwise rare. In two cases we find a hitherto unnoticed alternation of stem-final *i/j* with zero: the middle verb stem /χʷetti-/ 'to pull, to draw' alternates with /χʷett-/ before voiceless consonants, cf. 3s *huetti-ari* vs. 1s *huettᵃ-hhari*, likewise *pars(i)-* 'to break': 3s *parsⁱj-a* vs. 1s *parᵃs-ha*. A possible explanation could be that stem-final *i* was lost between voiceless consonants, probably via devoicing. Such a process also may explain forms like 3s /tarχʷtsi/ 'overcomes' (cf. Kloekhorst 2008: 835-8), which must go back to older *t(e)rχu-*, implying loss of *u* as a segment, probably via devoicing. This helped to give rise to a new phoneme /χʷ/, probably already in Proto-Anatolian (cf. Kloekhorst 2006).

Some other potentially relevant cases are related to earlier development of IE "laryngeals": The famous "metathesis" of original *iH/uH* may in fact be explained by vowel reduction with subsequent vowel epenthesis, viz. *gHi-tó- > *gHⁱtó- > *gⁱHtó- > *giHtó-* 'sung' (cf. Kümmel 2016: 218). A similar process may explain variation in some "enlarged" IE roots ending in "laryngeal" + *i/j* (cf. Rasmussen 1989), e.g., Iranian dublets like *wi-kāy-a- >* Avestan *vīkaiia-* and *wi-kā-θa- >* Parthian *wigāh* 'witness' show alternation between *-kāy-* and *-kā-* depending on the following sound (for the root *kʷeh₁i-* see Weiss 2016). The cumulative evidence suggests that *i*-less variants were regular before (voiceless) obstruents while the longer form was preferred elsewhere, i.e. before vowels and sonorants. Devoicing and subsequent loss of *i* between voiceless obstruents might be the reason for that alternation. Both alternations had morphological consequences, leading to confusion between roots with rhymes in *°eH-*, *°eHi-*, and *°eiH-*.

Phenomena like this could indicate that even in languages with little vowel weakening, voiceless environments could still favour vowel reduction.

References

Armagost, James L. 1985. On predicting voiceless vowels in Comanche. *Kansas Working Papers in Linguistics* 10/2, 1-15.

Hoffmann, Karl & Forssman, Bernhard. 2004. *Avestische Laut- und Formenlehre*. 2., durchgesehen und erweiterte Auflage. Heidelberg.

Kloekhorst, Alwin. 2006. Initial Laryngeals in Anatolian. *Historische Sprachforschung* 119, 77-108.

Kloekhorst, Alwin. 2008. *Etymological dictionary of the Hittite inherited lexicon*. Leiden / Boston.

Kümmel, Martin. 2016. Zur „Vokalisierung" der Laryngale im Indoiranischen. In: Dieter Gunkel, Joshua T. Katz, Brent Vine, Michael Weiss (eds.), *Sahasram Ati Srajas. Indo-Iranian and Indo-European studies in honor of Stephanie W. Jamison*, 216-226. Ann Arbor.

Rasmussen, Jens Elmegård. 1989. *Studien zur Morphophonemik der indogermanischen Grundsprache*. Innsbruck.

Szemerényi, Oswald. 1964. *Syncope in Greek and Indo-European and the Nature of Indo-European Accent*. Napoli.

Tsuchida, Ayako. 2001. Japanese vowel devoicing. *Journal of East Asian Linguistics* 10/3, 225–245.

Weiss, Michael. 2016. Gk. τίω 'I honor' and τιμή 'honor'. In: Ivo Hajnal, Daniel Kölligan & Katharina Zipser (eds.), *Miscellanea Indogermanica. Festschrift für José Luis García Ramón zum 65. Geburtstag*, 875-886. Innsbruck.

Vowel reduction in Bamana disyllabic feet

Valentin Vydrin

(INALCO — LLACAN, Paris)

Bamana (< Manding < Wastern Mande < Mande < Niger-Congo; also Bambara, spoken by some 14,000,000 people, mainly in Mali) has three types of disyllabic metric feet: (a) neutral, where both syllables have equal weight (CVCV); (b) trochaic, with a long vowel of the first syllable (CV:CV); (c) iambic, whose initial syllable vowel tends to undergo reduction (C^{v}CV). Vowel reduction takes place only in the iambic feet. This reduction is both quantitative (the vowel is shortened and can even be elided) and qualitative (only the opposition of front vs. back vowels is kept, all other phonemic oppositions are neutralized; and even the front:back opposition can be neutralized too).

Belonging of each particular foot (most often equal to a root word) to the neutral or iambic type is often predetermined by the consonantal frame (the types of consonants surrounding the vowel of the initial syllable) and by the combination of the vowels of both syllables of the feet. However, there are no rigid rules, and similar combinations of consonants and vowels can be found in neutral and iambic feet.

In some Bamana dialects, vowel reduction is much more advanced than in "Standard Bamana" (SB): some "neutral" feet of SB correspond to iambic feet in these dialects; iambic feet tend to transform to quasi-monosyllabic structures of the CCV type, and further on, to CV: SB *t̀le* 'sun, day' — Segu Bamana *tlè* — Beledugu Bamana *ɫè*. In many Bamana dialects, vowel reduction has a side effect of consonantal dissimilation: in a iambic foot of the T^{v}LV structure, the initial alveolar consonant is replaced by a velar consonant in some northern dialects (**dùlɔ* 'beer' > *glɔ̀*) or by a labial consonant in some southern dialects (**dùlɔ* 'beer' > *blɔ̀*).

Understanding of the mechanism of vowel reduction in Bamana may help to explain diachronic changes in many other Mande languages. The questions touched upon in the presentation will be:
— theoretical relevance of coexistence of three different types of metric feet in Bamana; cf. attempts to represent the Bamana metric foot as uniformly left-headed in (Green 2010, 2013, 2015);
— phonological contexts where the vowel reduction takes place in Bamana (surrounding consonants, the non-reduced vowel of the foot) and lack of correlation with the tonal system;
— a short survey of similar vowel reduction models in other Mande languages and relevance of the vowel reduction for the proto-language reconstruction (at various chronological levels).

References

Downing, L. J. What African languages tell us about accent typology. *ZAS Papers in Linguistics* 37, 2004, 101–136.

Green, Christopher R. 2010. *Prosodic phonology in Bamana (Bambara): Syllable complexity, metrical structure, and tone*. PhD dissertation. Indiana University.

Green, Christopher R. 2013. Formalizing the prosodic word domain in Bambara tonology. *Journal of West African Languages* 50, 61-84.

Green, Christopher R. 2015. The foot domain in Bambara. *Language* 91(1), e1-e26.

A phonological and phonetic approach of vowel reduction in Coratino: where is schwa in the acoustic signal?

Jonathan Bucci & Jean-Luc Schwartz
(Univ. Grenoble Alpes, [GIPSA-lab] F-38040 Grenoble)

The goal of this talk is to describe and analyze the vowel reduction process that operates in the dialect of Corato with two different, yet complementary, approaches: both phonological and phonetic. It will be interesting to see if and how phonetics can shed light on phonological theory. Consequently, this work is situated at a phonological/phonetical interface because the vowel reduction process is a meeting point between phonetics and phonology.

Coratino is a southern Italian dialect, where all unstressed vowels /i, e, ɛ, u, o, ɔ/ are reduced to schwa in unstressed syllables - apart from /a/ (D'Introno & Weston 2000). Some cases are shown in 1.

1. "whell" [rˈo̱tə]   "small whell" [ro̱tˈɛddə]

   "file"   [lˈi̱mə]   "to file"   [lˈə̱ma]

   "lip"   [lˈɛ̱bbrə]   "small lip"   [lə̱bbrˈut͡sə]

Another characteristic of this system is that vowels are not reduced in unstressed position either if they are at an initial position in the word or when they are adjacent to a consonant with which they share a melodic feature (palatality for front vowels and velarity or labiality for back vowels) (see 2).

2. "stamp"   [bˈu̱llə]   "small stamp"   [bu̱llˈinə]

   "poor"   [pˈɔ̱vərə]   "small poor"   [po̱vərˈiəddə]

   "girl"   [fˈi̱ɟɟə]   "to give birth"   [fi̱ɟɟˈa]

   "fold"   [cˈɛ̱kə]   "to fold"   [ce̱kˈa]

   "tincture" [kˈɔ̱nd͡zə]   "tanner"   [ku̱nd͡zatˈorə]

This system was extensively analyzed in the framework of theoretical phonology, capitalizing on the assumption that a vowel which shares melody with a consonant segment is a branching structure which protects the vowel from reduction (Honeybone 2005). The present study attempts to explore the phonology-phonetics interface in the context of this vowel reduction phenomenon. Indeed, phonological vowel reduction is a discontinuous/binary process while phonetic vowel reduction is continuous/gradient and largely predictable from the duration of the reduced vowel. We analyzed a corpus of vowel reduction for three speakers of Coratino, asking three questions:

1. Are there discontinuous effects in vowel reduction clearly showing the existence of phonological reduction to schwa?
2. Are there other gradient reduction effects related to phonetic reduction?
3. Are there phonetic cues in the acoustic signal suggesting why /a/ escapes from phonological reduction?

We obtained three major results:

1. There are indeed clear formant shifts, almost discontinuous, from /i, e, ɛ, u, o, ɔ/ to schwa. These shifts cannot be predicted by vowel duration. Hence they signal the existence of a phonological reduction process not explainable by phonetic reduction.

2. Surprisingly, there seems to exist in the formant structure of the schwa clues to the identity of the underlying vowel, that is F1 in schwa seems to depend on the melody of the vowel before phonological reduction.
3. There are phonetic reduction phenomena, which could provide a phonetic motivation for the special status of the vowel /a/, which stays substantially longer than the others when it is unstressed.

Such vowel reduction phenomena hence appear to provide a very important window on the phonology-phonetics interface at hand in language description.

References

D'Introno, F., et Weston, R. M. 2000. Vowel Alternation, Vowel Consonant Assimilation and OCP Effects in a Barese Dialect. Phonological Theory and the Dialects of Italy, In L. Repetti (Ed.) Current Issues in linguistic theory. 212, 89-110. Amsterdam: Benjamins.

Fodor, J. A. 1983. The modularity of mind: An essay on faculty psychology. MIT press.

Honeybone, P. 2005b. Sharing Makes Us Stronger: Process Inhibition and Segmental Structure. Headhood, elements, specification and contrastivity: phonological papers in honour of John Anderson, In P. Carr, J. Durand & C. J. Ewin (Eds.), 167-192. Amsterdam: Benjamins.

Larsen, B. U. 1998. Vowel Length, Raddoppiamento Sintattico and the Selection of the Definite Article in Italian. Langues et Grammaire. 87-102. Paris: Université Paris 8.

Lindblom, B. 1963. Spectrographic study of vowel reduction. The journal of the Acoustical society of America, 35(11), 1773-1781.

Lowenstamm, J. 1991. Vocalic Length and Syllable Structure in Semitic. In Semitic Studies in Honor of Wolf Leslau on the occasion of his 85th birthday. 949- 965. Wiesbaden: Harrassowitz.

Lowenstamm, J. 1999. The beginning of the word. Phonologica, In J. R. Renison & K. Kühnammer (Eds.), 153–166. The Hague: Thesus.

Scheer, T. 2012. Direct Interface and One-Channel Translation. A Non-Diacritic Theory of the Morphosyntax-Phonology Interface. Vol. 2 of A Lateral Theory of phonology. Berlin: Mouton de Gruyter.

Vowel loss and dispersal asymmetries in Propontis Tsakonian as contact-induced features

Nikos Liosis

(Institute of Modern Greek Studies, Aristotle University of Thessaloniki)

Vowel reduction and dispersion are usually approached as instances of internally-motivated language change, or as shifts in the balance between conflicting articulatory and perceptual needs of a more or less universal nature. The aim of this paper is to draw attention to an aspect of these phenomenona that is often overlooked: cross-linguistic presence of vowel reduction and of changes in distribution of the vowels within the vowel space can be contact-induced or even the result of areal convergence. Therefore, this is an approach from the point of view of contact linguistics and, more specifically, of areal linguistics, and the main research question would be how we can explicitly show that in some cases a contact / areal explanation of reduction and dispersion is indeed more preferable than an internal / indepedent or universal explanation. The data come from a qualitative analysis of all

available written sources in Propontis Tsakonian (PrTs), a now-extinct subdialect of Tsakonian which was spoken from the 18th century to the beginning of the 20th century on the north-west coast of Asia Minor. There it came into intense contact with the local Modern Greek, Bulgarian and Turkish dialects of Thrace and Bithynia, and was heavily influenced by them on all levels of linguistic analysis (Liosis 2015). The Modern Greek Thraco-Bithynian dialects (MGTB) generally belong to what are known as the Northern or Semi-northern dialects of Modern Greek. The basic characteristic of the Northern dialects is that they categorically delete the unstressed high vowels /i, u/ and raise the unstressed mid vowels /e, o/ to /i, u/, while the Semi-northern dialects show only the first characteristic (Newton 1972, Kontossopoulos 1994), as is also the case with PrTs. In addition, in the MGTB dialects we find the morphophonological phenomenon of loss of unstressed final /e/ in the inflectional paradigm of the verb, which in PrTs has been extended to unstressed final /o/. Comparable examples of vowel reduction and loss are found in many eastern Balkan languages and dialects (e.g. in south-eastern Macedonian dialects, in eastern Bulgarian dialects etc.), and the phenomenon is considered a basic phonological characteristic of the Balkan Sprachbund (Sawicka 1997, Friedman 2006). Therefore, the expected result of this investigation is that the loss of unstressed mid and high vowels in PrTs should be considered a Balkanism that diffused to PrTs by way of the Thraco-Bithynian dialects (cf. Tzitzilis 2001, which makes reference to the existence in Tsakonian of several Balkanisms, mainly of a morphosyntactic nature). Contact with the latter dialects also led to the adoption of a front, near-open /æ/, and thus to the creation of a typologically rare asymmetrical six-vowel system (/i, u, e, o, æ, a/; cf. Maddieson 1984:248–51; Trudgill 2009:170–2).

Selected references

Baltazani, M. 2006. "Prosodic rhythm and the status of vowel reduction in Greek". *Selected Papers from the 17th international symposium on theoretical and applied linguistics.* 1:31–43. Thessaloniki: Department of Theoretical and Applied Linguistics.

Friedman, V. 2006. "Balkans as a Linguistic Area". In Keith Brown (ed.) *Encyclopedia of Language & Linguistics*. 1, 657–672. Oxford: Elsevier.

Kontossopoulos, N. 2000. Dialekti kai idiomata tis neas ellinikis. Athens: Ekdoseis Grigori.

Liosis, N. 2015. "Systems in disruption: Propontis Tsakonian". Paper presented at the *12th International Conference on Greek Linguistics (Berlin, 16–19 September, 2015).*

Loukina, A. 2008. *Regional Phonetic Variation in Modern Greek*. Unpublished PhD dissertation. University of Oxford.

Maddieson, I. 1984. *Patterns of sounds*. Cambridge: Cambridge University Press.

Newton, B. 1972. *The generative interpretation of dialect: a study of Modern Greek phonology*. Cambridge: Cambridge University Press.

Sawicka, I. 1997. *The Balkan Sprachbund in the light of phonetic features*. Warsaw: Energeia.

Trudgill, P. 2003. "Modern Greek Dialects: a preliminary classification". *Journal of Greek Linguistics* 4, 45–63.

Trudgill, P. 2009. "Greek dialect vowel systems, vowel dispersion theory, and sociolinguistic typology". *Journal of Greek Linguistics* 9, 80–97.

Tzitzilis, Ch. 2001. Balkan Linguistics and dialects: the case of Tsakonian. Paper presented at the *3rd International Conference of the Balkan-Commission*, Sophia.

Interaction of Tone and Vowel Height in BCS Vowel Reduction

Jelena Stojković
(University of Leipzig)

Aim. I present an unattested pattern of vowel reduction in Bosnian variety of Serbo-Croatian (henceforth: BCS) in which mid vowels are skipped if they are associated with a High tone. I show this opacity to be a case of a gang effect (in terms of Harmonic Grammar, cf. Smolensky & Legendre 2006): deletion of both [-high] and a H tone is more expensive for the grammar than the loss of [+high] and a H tone.

Data. As shown in (1), the reduction affects short non-low vowels in open medial syllables. The mora can surface a) assigned to the preceding sonorant, yielding its syllabicity, or b) empty, later filled with a schwa at the phonetic level (Polgardi 1996). Some selected examples of the data in (1), excerpted from descriptive literature, show that in this system with five vowel-phonemes /i, e, a, o, u/ non-low vowels are subject to reduction iff unmarked – short, unstressed, non-initial or not a single morpheme. While mid vowels are skipped if they are associated with a H tone (1-b), high vowels are always affected (1-c).

(1)

	Dictionary forms	Colloquial	gloss
a.	'Sara:jevo	'Sara:jəvo	(N.proper)
b.	'ʤi^{H}ge^{H}rica	'ʤi^{H}ge^{H}rca	'liver'
	'de^{H}te^{H}lina	'de^{H}te^{H}lna	'clover'
	'vo^{H}lo^{H}vima	'vo^{H}lo^{H}vəma	'ox' Instr.Pl
c.	go'vo^{H}ri^{H}li	go'vo^{H}rli	'speak' PastPart.Masc.Pl
	ma'ga^{H}ri^{H}ca	ma'ga^{H}rca	'donkey' Fem
	'po^{H}ku^{H}pe:	'po^{H}kəpe:	'pick up'(Perf) Pres.3Pl

The analysis is based on two approaches: first I offer an OT account, with reliance on contextual Licensing constraints Lic-Q/β (Crosswhite 2001) and Positional Faithfulness Ident-*Position*(F) (Beckman 1998). This can account for the data iff we assume three trigger constraints, two referring to vowels specified by [–low], (Lic[-low]/S(tress) and Lic[-low]/$\mu\mu$) and one referring to the feature [–high] (Lic[-high]/H). The number of syllables remains unchanged, and here the syllable structure constraints produce a well-formed output by syllabifying sonorants and the phonotactics of the language fills the empty slots at the phonetic level with an only non-phonemic vowel of BCS – [ə].

(2)   The Crosswhite (2001) system

/'vo^{H}lo^{H}vima/	IDENT-σ'(F)	IDENT-σ_1(F)	MAX-MS	Lic[-HIGH]/H	Lic[-low]/S	Lic[-low]/$\mu\mu$	MAX-μ	SYLMARG	Lic-μ	NUCLEUS
a. 'vo^{H}lo^{H}vima					**!	***				
b. 'vo^{H}l$^\mu$v$^\mu$ma				*!	*	***			*	*
☞ c. 'vo^{H}lo^{H}v$^\mu$ma					*	**			*	*
d. 'vo^{H}lo^{H}vim		*!	*		**	***	*			

Formulated this way, the analysis in (2) is straightforward, but unwieldy, and still the issue of the triple trigger is difficult to explain. Therefore I offer an alternative account in Harmonic Grammar, by observing the reduction as a case of OO-Correspondence (McCarthy & Prince 1995) with Prosodic Faithfulness (McCarthy 2000), I show that the opacity in BCS vowel reduction comes from a gang effect: violations of lower-ranked constraints are more expensive for the grammar than violating a single trigger constraint *[-low], as shown in (3) and (4).

(3)   A solution in HG – mid H-toned vowel

e_μ^H	*[−low]	Max-μ	Lic-μ	Max-[−high]	Lic-H	Max-H	Max-[+high]	Max-[−low]	H
Weights	9.0	5.0	4.0	3.0	3.0	2.0	1.0	1.0	
☞ a. e_μ^H	−1								−9
b. $_\mu^H$			−1	−1	−1			−1	−11
c. $_\mu$			−1	−1		−1		−1	−10

(4)   A solution in HG – high H-toned vowel

i_μ^H	*[−low]	Max-μ	Lic-μ	Max-[−high]	Lic-H	Max-H	Max-[+high]	Max-[−low]	H
Weights	9.0	5.0	4.0	3.0	3.0	2.0	1.0	1.0	
a. i_μ^H	−1								−9
b. $_\mu^H$			−1		−1		−1	−1	−9
☞ c. $_\mu$			−1			−1	−1	−1	−8

This paper makes a contribution to the under-researched area of tone and vowel quality interactions. There are only so many reports on relations of tone and vowel height; Becker and Jurgec (2017) report on an interaction of tone and ATR that occurs on mid vowels also. The grounds of this notion have been noticed more in the acoustic literature, where it is said that higher vowels have higher intrinsic F0 than lower vowels (Ohala 1978). In that sense, vowels would be phonetically lowered with the H tone, but a H-toned high vowel would still be too high for the system.

References

Becker, M. 2007. Tone licensing and categorical alignment in Serbo-Croatian.

Becker, M. & P. Jurgec. 2017. Interactions of tone and ATR in Slovenian.

Beckman, J. 1998. Positional Faithfulness

Crosswhite, K. 2001. Vowel Reduction.

Halilović, S., Tanović I. and A. Šehović 2009. Govor grada Sarajeva i razgovorni bosanski jezik.

Jovanović, M. 2007. Neke osobenosti prozodijskog i vokalskog sistema govora na tromeđi Srbije, Crne Gore i Bosne i Hercegovine u odnosu na književni jezik.

Polgárdi, K. 1996. Constraint ranking, Government Licensing and the fate of final empty nuclei.

McCarthy, J. & A. Prince. 1995. Faithfulness and identity in prosodic morphology

McCarthy, J. 2000. Faithfulness and prosodic circumscription.

Ohala, J. J. 1978. Production of Tone.

Smolensky, P. & G. Legendre. 2006. The Harmonic Mind: From neural computation to Optimality-Theoretic grammar.

Ćurković, D. 2014. Govor Bitelića.

Zec, D. 1999. Footed tones and tonal feet.

Zec, D. 2000. Struktura slogova u srpskom jeziku.

Zec, D. 2007. Slogotvorni glasovi u srpskom jeziku.

Evidence for Coptic vowel reduction from L2 Greek usage

Sonja Dahlgren

(University of Helsinki)

In this paper I study Coptic vowel reduction through L2 Greek usage in Egypt from the Roman period onwards, concentrating on a corpus especially abundant with Egyptian-induced variation (O.Narm.)[30]. Greek was the language of government with mostly Egyptian scribes; this caused orthographic variation induced by Coptic phonology. Evidence of Coptic vowel reduction is not easily obtained language internally, although dialectal forms contribute to a degree, for instance in determining the position of stress (Peust 1999: 270). Therefore, Coptologists argue e.g. whether the long and short vowel graphemes borrowed from the Greek alphabet represented vowel quantity or quality (e.g. Loprieno 1995 for quantity; Peust 1999 for quality). Given the amount of vowel reduction in misspellings of Greek words, it seems unlikely that this kind of stress-timed language, prone to vowel reduction (Girgis 1966: 73; Peust 1999: 270ff.) would have had a noticeable quantity distinction; therefore Peust (1999) is followed here in assuming a difference in quality.

To date, it remains unclear what the Coptic unstressed vowel inventory included. Haspelmath (2015: 124), following Loprieno (1995: 50), limits the unstressed vowel inventory to schwa and /a/, while Peust (1999: 250-254) and Girgis (1966: 81-82) consider it to consist of /a, e, i, u/. I discovered a more precise pattern for Coptic vowel reduction in my phonological analysis of L2 Greek misspellings: there is a significant consonant-to-vowel coarticulatory effect visible in most instances, utilising all vowels except /o/ in unstressed syllables.

It seems that in Coptic, consonants conditioned the quality of adjacent vowels, perhaps in order to give immediate acoustic cues of the quality of the consonants through the adapted quality of the vowels. This has been studied by Traunmüller (1999) in relation to other consonant-rich languages. The phenomenon in Coptic is more prominent in word-medial misspelled vowels, while word-final vowels tend to reduce to schwa. This could be linked to the longer duration of schwa word-finally as studied by Flemming (2009: 79-86; 89-91), giving it time to reach its target, while word-medially the shorter duration of schwa leaves it vulnerable to assimilation to the quality of the adjacent phonemes. For instance in <kerasen> from *kérason* (O.Narm. 115), the <e> in the misspelled form probably denotes word-final schwa as per Coptic orthographic practices (Loprieno 1995: 48; Peust 1999: 250).

On the other hand, /e/ was word-internally consistently susceptible to consonantal assimilation, ranging between [ɛ~e~ẹ~i]. Consider e.g. <mɛtropoli> from the standard *mẹtropóli* (O.Narm. 110; retraction of /ẹ/ after the bilabial; see Flemming 2009 for bilabials retracting close vowels) and <kˢylopolis> from *kˢylopólẹs* (O.Narm. 21; raising of /ẹ/ to /i/ in between coronals). A similar phenomenon, although apparently not tied to the stress position, is witnessed in contemporary Arabic, another Afroasiatic language: particularly short and close vowels are often unstable and influenced by consonantal quality (Bellem 2007: 174-175).[31]

References

Bellem, Alex. 2007. Towards a comparative typology of emphatics. University of London, doctoral dissertation.

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[30] The corpus is available in an online platform of Greek texts, Papyri.info.

[31] Single-spaced, re-paginated version (PDF) made by the author.

Flemming, Edward. 2009. The phonetics of schwa vowels. In Donka Minkova (ed.), *Phonological weakness in English. From old to present-day English,* 78-98. Palgrave Studies in Language History and Language Change. New York: Palgrave Macmillan.

Girgis, W.A. 1966. Greek loan words in Coptic (Part II). In *Bulletin de la Société d'Archéologie Copte* 18. 71-96.

Haspelmath, Martin. 2015. A grammatical overview of Egyptian and Coptic. In Eitan Grossman, Martin Haspelmath & Tonio Sebastian Richter (eds.), *Egyptian-Coptic Linguistics in Typological Perspective.* Empirical Approaches to Language Typology 55, 103-143. Berlin: De Gruyter.

Loprieno, Antonio. 1995. *Ancient Egyptian. A linguistic introduction.* Cambridge: Cambridge University Press.

Peust, Carsten. 1999. *Egyptian phonology. An introduction to the phonology of a dead language.* Göttingen: Peust und Gutschmidt.

Traunmüller, Hartmut. 1999. Coarticulatory effects of consonants on vowels and their reflection in perception. In *Proceedings from the XIIth Swedish Phonetics Conference,* 141-144.

Vowel reduction in Russian academic singing

Maria Konoshenko

(Russian State University for the Humanities)

This paper deals with the phonological patterns of Russian vowel reduction in academic singing, where a conflict arises because of the properties of unstressed vowels, namely their reduced quality and duration, when they are lengthened in sung performance. This issue has been discussed (Sadovnikov 1958; Grayson 2012; Olin 2012), but from a prescriptive rather than descriptive point of view. This paper presents the results of a descriptive study of vowel reduction in sung Russian, based on the recordings of 8 romances written by Russian composers of the 19th century and performed by 28 professional singers (14 women, 14 men, of various voice types), all native speakers of Russian, born from 1872 to 1971.

I discuss two types of vowel reduction in the first pretonic syllable in sung and spoken Russian:

(a) the realization of unstressed /o/ after non-palatalized consonants and word-initially

(b) the realization of unstressed low /C'a/ vowel after palatalized consonants

The main patterns of reduction observed in singing and in spoken language (Avanesov 1956; Kniazev and Požarickaya 2012) are summarized in Table 1.

Table 1. Vowel reduction in spoken and sung Russian

Unstressed /Co/		Unstressed /C'a/	
Sung Russian	Spoken Russian	Sung Russian	Spoken Russian
/Co/→[Ca]		/C'a/ → [C'e] (minor) /C'a/ → [C'a] (dominant)	/C'a/→[C'e] (older norm) /C'a/→[C'i^e] (modern norm)

The underlying pretonic /o/ is invariably realized as [a] after non-palatalized consonants and word-initially both in singing and in spoken language resulting in /o, a/ neutralization, e.g., *гора* /gorá/→ [gará] 'mountain', *сказать* /skazát'/ → [skazát'] 'say'.

The underlying pretonic /a/ tends to be faithfully realized as [a] after palatalized consonants in singing, which is the dominant pattern. However, for some performers born between 1900 and 1940 /C'a/ is reduced to [C'e] yielding /a, e/ neutralization: *гряда* /gr'adá/ → [gr'adá] / [gr'edá] 'ridge', *река* /r'eká/ → [r'eká] 'river'. This minor pattern arguably reflects the so-called "Old Muscovite" pronunciation or the older standard of Spoken Russian (Avanesov 1956:106-113), which was powerful when these singers started their careers. In modern standard spoken Russian, non-high unstressed vowels are realized as [i^e] after palatalized consonants: *гряда* /gr'adá/ → [gr'i^{e}dá] 'ridge', *река* /r'eká/ → [r'i^{e}ká] 'river'.

Crucially, pretonic /a/ is never realized as [i^e] after palatalized consonants in singing, as opposed to spoken Russian. It has been argued that singers follow the orthography in their pronunciation (Reformatskij 1955: 194-195). However, orthographic conventions are violated by consistent /o/→[a] realization after non-palatalized vowels in singing as well as in spoken language. Therefore, vowel realization in singing is not completely governed by orthography.

While the two phonological processes /Co/→[Ca] are /C'a/→[C'i^e] are usually described as similar categorical changes in literature on vowel reduction in spoken Russian (Crosswhite 2000; Padgett 2004; Hermans 2008; Iosad 2012), in this paper I argue that they are in fact phonologically different. The segment [a] occurs both in stressed and unstressed positions, whereas [i^e] can only be unstressed and phonetically reduced. In singing, all vowels are articulated more continuously, hence phonologically "weak" allophone [i^e] is avoided. Based on an experiment with 12 Russian speakers having no singing experience, I demonstrate that this is also true for careful syllabic pronunciation in spoken Russian. Hence, different realization of unstressed /Co/ and /C'a/ is not specific for singing but it reveals a fundamental structural asymmetry between the two types of Russian vowel reduction in general.

References

Avanesov, R. I. 1956. Fonetika sovremennogo russkogo jazyka. Moscow: Izdatel'stvo Moskovskogo universiteta.

Crosswhite, Catherine M. 2000. Vowel reduction in Russian: A unified account of standard, dialectal, and 'dissimilative' patterns. In Catherine M. Crosswhite & Joyce McDonough (eds.), University of Rochester Working Papers in the Language Sciences (Spring 2000), 107–171. Rochester, NY: University of Rochester.

Grayson, Craig. 2012. Russian Lyric Diction: A practical guide with introduction and annotations and a bibliography with annotations on selected sources. PhD. University of Washington.

Hermans, Ben. 2008. Russian vowel reduction with elements and without ease of perception. In Gerhild Zybatow, Luka Szucsich, Uwe Junghanns & Roland Meyer (eds.), Formal Description of Slavic Languages: The Fifth Conference (Linguistik International 20), 92–104. Frankfurt am Main: Peter Lang.

Iosad, Pavel. 2012. Vowel reduction in Russian: No phonetics in phonology. Journal of Linguistics 48: 03. 521–571.

Kniazev, S. V. and S. K. Požarickaya. 2012. Sovremennyj russkij literaturnyj jazyk: fonetika, orfoepija, grafika, orfografija. Moscow: Akademičeskij proekt.

Olin, Emily. 2012. Singing in Russian: A guide to language and performance. Lanham, MD: The Scarecrow Press, Inc.

Padgett, Jaye. 2004. Russian vowel reduction and Dispersion Theory. Phonological Studies 7, 81–96.

Reformatskij, A.A. Reč i muzyka v penii. Voprosy kul'tury reči. 1955, 1. 172–199.

Sadovnikov, V.S. 1958. Orfoepija v penii. Moscow: Muzgiz.

The influence of vowel reduction on grammar (evidence from minor Finnic varieties of Ingria)

Fedor Rozhanskiy & Elena Markus

(University of Tartu, Institute of Linguistics RAS)

Vowel reduction is mostly studied from the point of view of its phonetic properties (Lindblom 1963, Delattre 1969, Lawrence 2011, Padgett, Tabain 2005), or its phonological effects and constraints (Crosswhite 2004, Barnes 2006, Scheer 2010). The effects of reduction on other language levels have not yet received much attention (but see Bethin 2012a, 2012b, who investigates the changes in Russian and Belorussian morphology provoked by vowel reduction).

The main goal of this paper is to demonstrate that the consequences of reduction go far beyond the phonetic level and spread to the morphophonology and morphology of a language.

This study is based on the material of minor Finnic varieties: Votic, Ingrian and Ingrian Finnish. Most of the data come from field recordings made by the authors in 2001-2016. Some data were taken from the materials recently collected and presented by Kuznetsova (2009) and Sidorkevič (2014). The basic phonetic properties of the vowels were analysed with experimental acoustic and statistical methods. The morphological effects were checked with the remaining native speakers and compared to an earlier stage of the language as described in published grammars and dictionaries.

The contemporary Finnic varieties under discussion demonstrate a wide range of vowel reduction types, including quantitative and qualitative reduction, phonetic weakening in fast speech and phonologized vowel change. For example, the apocope can be phonetic (Soikkola Ingrian *peenťtara* [pēntără] 'seedbed') or phonological (Votic *tuttęvə̂* < *tuttava* 'acquaintance'), either with or without a palatalizing/labializing effect on the previous consonant (Siberian variety of Ingrian Finnish *lisä-tt ʷ* < *lisä-ttü* 'add-prt.pass'), see also Kuznetsova 2016.

The paper analyses systematic morphophonological and morphological changes that were triggered by the vowel reduction in these varieties. The main processes to be discussed are the following:

1. Reassignments in the system of declension types caused by the qualitative reduction of the stem-final vowel (Luuditsa Votic: *jaлgę-d* 'foot-pl.nom' vs. *sęna-d* 'word-pl.nom' < **jaлga-d* 'foot-pl.nom', **sęna-d* 'word-pl.nom'; in the latter example the reduction is blocked by the CVCVC structure of the foot).
2. Loss of distinction between two morphological cases (Luuditsa Votic: *tütö-llə* 'girl-ade/all' < **tütö-l(l)e* 'girl-all' vs. **tütö-llä* 'girl-ade').
3. Compensatory lengthening of the stem-final vowel as the result of the final vowel drop (Soikkola Ingrian: *naižee-št* 'woman-ela' < **naiže-šta* 'woman-ela').
4. Spread of case syncretism as the result of reduction of long vowels or long diphthongs (Luuditsa Votic: *кала* 'fish.nom/gen' < **кала* 'fish.nom' vs. **калаа* 'fish.gen'; southern varieties of Soikkola Ingrian: *lafkoĭ* 'shop.nom/ill' < *lafkoĭ* 'shop.nom' vs. *lafkoi* 'shop.ill').

The analysed changes triggered by vowel reduction demonstrate how a purely phonetic process that is usually treated as a language periphery can eventually give rise to changes in a grammatical system.

References

Barnes, J. 2006. *Strength and Weakness at the Interface. Positional Neutralization in Phonetics and Phonology.* de Gryuter: Berlin/New York.

Bethin, Ch. 2012a. Effects of vowel reduction on Russian and Belorussian inflectional morphology. *Lingua* 122 (11), 1232–1251.

Bethin, Ch. 2012b. On paradigm uniformity and contrast in Russian vowel reduction. *Natural Language and Linguistic Theory* 30 (2), 425–463.

Crosswhite, K. 2004. Vowel reduction. In: B. Hayes, R.Kirchner, and D. Steriade (eds.). *Phonetically based phonology*. Cambridge University Press: Cambridge, 191–231.

Delattre, P. 1969. An acoustic and articulatory study of vowel reduction in four languages. *International Review of Applied Linguistics in Language Teaching* 7 (4), 295–325.

Kuznetsova, N. V. 2009. *Fonologičeskie sistemy ižorskih dialektov*. PhD thesis from the Institute for Linguistic Studies, Saint-Petersburg.

Kuznetsova, N. 2016. Evolution of the non-initial vocalic length contrast across the Finnic varieties of Ingria and adjacent areas. *Linguistica Uralica* 52 (1), 1–25.

Lawrence, W. 2011. More on pitch, stress, and vowel reduction. *Gengo Kenkyu* (*Journal of the Linguistic Society of Japan*) 139, 111–119.

Lindblom, B. 1963. Spectrographic study of vowel reduction. *The Journal of the Acoustical Society of America* 35 (11), 1773–1781.

Padgett, J., Tabain, M., 2005. Adaptive dispersion theory and phonological vowel reduction in Russian. *Phonetica* 62 (1), 14–54.

Scheer, T. 2010. *A Guide to Morphosyntax-Phonology Interface Theories: How Extra-Phonological Information is Treated in Phonology since Trubetzkoy's Grenzsignale*. Berlin/New York: de Gryuter Mouton.

Sidorkevič, D. V. 2014. *Jazyk ingermanlandskih pereselencev v Sibiri (struktura, dialektnye osobennosti, kontaktnye javlenija)*. PhD thesis from the Institute for Linguistic Studies, Saint-Petersburg.

Vowel deletion in Muylaq' Aymara
Matt Coler

Vowel deletion occurs frequently in Aymara, a highly agglutinative, suffix-only isolate, with only three underlying vowels, spoken mainly in Peru and Bolivia (Coler, 2014a). In this talk, we explore the phonetic causes and phonological mechanisms in which vowel loss occurs as well as describe those systematic constraints which favor reduction or prevent it from occurring. Accordingly, we thoroughly describe the topologically unusual characteristics of vowel deletion in Aymara, focusing on syntactic and morphemic motivations for the phenomena. Compare the consonant cluster on the first line in (1), with the underlying form in the second[32].

(1)   ¿Munt'ktt?'
        {mun(a)-ct'(a)-ck(a)-ct-t(i)}
        want-MOM-NCPL-1>3SIM-NEG
        'Do I want it?'

Syntactically-motivated vowel deletion occurs when a NP modifier has three or more vowels and loses its final vowel. Consider the difference between the modifier /ʧʼijaɾa/ 'black' (which has three

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[32] Following the convention used by Hardman et al. (2001:67), the subscript -c precedes suffixes that are lexically specified to suppressing the preceding vowel. Vowels given between parenthesis indicate those which are predictably lost.

vowels) and /hanq'u/ 'white' (which has two vowels) when modifying /t'ant'a/ 'bread': [ʧ'ijaɾ(a) t'ant'a] 'black bread' and [hanq'o t'ant'a] ~ [hanq'(o) t'ant'a] 'white bread'.

There is also phrase-final vowel deletion whereby the final vowel in phrases is deleted. Consequently, the nucleus of the -χa topicalizer in utterances like (2) are never realized, regardless of how the next sentence begins:

(2) Tunasaɾsaɾaχaχ.
     {tunasa-ɾ(u)   saɾa-χa-χ(a)}
     cactus.pear-ALL   go-1FUT-TOP
     'I will go to the cactus pears'

As for morphemic vowel deletion, some suffixes always delete the preceding vowel. The class of vowel-deleting suffixes cannot be defined with reference to a shared feature. The tendency to delete the preceding vowel is an idiosyncratic property of each suffix. Note that suffixes beginning with glides, rhotics, and (usually) nasals, never delete the preceding vowel. Homophonous suffixes may be distinguished only insofar as one deletes the preceding vowel while another does not.

(3) /-ct/ 1sg simple
     /-cta/ 2sg simple
     /-t(a)/ ablative
     /-ta/ resultative

Moreover, the accusative is marked with -c∅, i.e. the deletion of the final vowel in the inflected noun, as in (4), except when the direct object is affixed with the declarative phrase-final suffix, as in (5). Subtractive inflection is unusual in the world's languages (Coler, 2014b).

Comparing the variety of Aymara vowel deletion patterns alongside that attested in other languages, will provide more complete account of the phenomena both in Aymara, as well as cross-linguistically.

References
Coler, M. (2014a). A Grammar of Muylaq' Aymara. Leiden: Brill.
Coler, M. (2014b). Inflection in Aymara. In M. Baerman (Ed.), Handbook of Inflection. Oxford University Press.
Hardman, Martha J., Juana Vásquez, and Juan de Dios Yapita with Lucy Briggs, Nora Eng- land, and Laura Martin. 2001. Aymara: compendio de estructura fonológica y gramatical, second edition. La Paz: Editorial ILCA.

MAGLICUNAS vs *Maglocuni*: Obscuration, reduction and loss of composition vowels in Goidelic compound names

Tatyana Mikhailova
(Moscow State University)

The Goidelic stage in the history of Irish is represented by Ogham inscriptions (IV - VII c. AD), consisting of an alphabetic system of straight lines and notches (see McManus 1997). Most inscriptions represent only a name in genitive and the reconstruction of the lemma-form of an Ogham-name is thus potentially problematic.

The majority of inscriptions (appr. 360) are attested in Ireland, but we also have a collection of inscriptions from Wales in which the Ogham inscription is accompanied by one in the Latin alphabet. Of the 40 relatively well preserved bilingual inscriptions in only 11 do the Ogham and Latin text "echo one another more or less exactly" (McManus 1992: 61). These true bilingual inscriptions are very important for tracing steps of the development of the Irish language (see Jackson 1953).

It is tacitly supposed by linguists that Early Irish names have the same morphosyntactic status as in Gaulish and British. So, they 1) are compound; 2) have an unstressed composition vowel, cf. Gaulish *Maglocune* (dat.*)* vs. Ogham MAGLICUNAS (gen.) and the British variant: Maglocuni fili 'Prince-wolf' or 'Prince of the wolfs'. (CIIC N 446; cf. Delamarre 2007). In the Old Irish period this name is attested as *Mailchon* (gen.) with 1) *u > o* by vowel-affection or metaphony, a process in which short vowels in adjacent syllables underwent partial or complete assimilation (**kuna > *kona*-); 2) the obscuration and loss of the composition vowel and apocope of the flexion of the second element. Cf. also CUNAMAGLI (N 501) > OI *Conmál* (nom.) Which 'step' of this development is attested in Latin letters according the perception of a British listener and carver? The reduction of the composition vowel predates its syncope, dating to the middle of the VI c. The neutral schwa in place of the composition vowel could not provoke the vowel affection *u > o*, and the Latin variant of the name doesn't reflect its 'real' phonetic colour, but represent rather a product of an automatic Roman interpretation of a Celtic name. So, Latin variants of Goidelic names do not reflect their real pronunciation, but follow a Latin tradition of rendering Celtic names.

The aim of the present paper is to reexamine Goidelic names in bilingual inscriptions from Wales concentrating on the fate of *-o-/-a-* and *–i-/-o-* alternation as a composition vowel (see Sims-Williams 2013) and, as a second step, to analyze Ogham names from Ireland from this point of view. I will try to demonstrate that some of Oghamic names in their lemma-form represent pre-compound archaic two-element personal names and the composition vowel is rather a shortened genitive flexion: *-conas > -cona*. Cf. Old Irish *Conchobar* – gen. *Conchobair* with *Cú Chulainn* – gen. *Con Chulainn* and *Cú Roi*, so – a non-Indo-European type of name (see O'Brien 1973). The type CUL̲I-DOVI '(having) a black back' (in Uhlich 1993) is another example of a composition vowel pointing to genitive flexion.

References

CIIC – Corpus Inscriptionum Insularum Latinarum. Ed. R.A.S.Macalister. Dublin 1945.

Delamarre X. 2007, *Noms de personnes celtiques dans l'épigraphie classique*. Paris.

Jackson K., 1953, *Langauge and History in Early Britain: a chronological survey of the Brittonic Languages 1ˢᵗ to 12ᵗʰ c. A.D.* Edinburgh, 1953 (repr. 1963, 1971, 1978, 1994).

McManus D. 1991, *A Guide to Ogam*. Maynooth, AnSagart.

O'Brien, M.A., 1973, 'Old Irish personal names', *Celtica*, X, 211-236.

Sims-Williams P. 2013, 'The Celtic Composition Vowel –o- and –io-', in *Continental Celtic Word Formation. The Onomastic Data*. Luis Garsia Alonso (ed.). Salamanca.

Ulich J. 1993, 'DOV(A) and lenited –B- in ogam' *Ériu*, 40, 129-134.

Orthography and phonology in Northern Khanty: the case of reduced vowels

Merja Salo
(University of Helsinki)

In Khanty, vowel inventories vary greatly from dialect to dialect, with the largest inventory in the eastern dialects and the smallest in the northern dialects. The full vowel inventory occurs only in the first syllable of a word. Vowels in subsequent syllables are restricted to a specific subset, which is a common phenomenon in many other Uralic languages, too. Traditionally, the vowels in the Khanty dialects have been described in terms of a quantitative opposition: full versus reduced vowels or long versus short vowels. Northern Khanty has two literary variants, Kazym and Shuryshkary. This paper concentrates on the lesser known Shuryshkary variant used in Northwest Siberia.

In Northern Khanty, distinction in vowel length is phonemic and no diphthongs occur. The new dialectal dictionary of Northern Khanty (Valgamova & al. 2011: 160-161) states that the Shuryshkary dialect has eight vowels (*ā, ă, ɔ, o, ū, u, e, i*) in the first syllable, and five (*ə, a, e, i, u*) in other syllables. These vowel phonemes are realized in the orthography using 10 Cyrillic letters. The analysis is based on Steinitz (1975) and it is similar to Nikolaeva's (1995: 23) analysis of the Ust-Sob subdialect of the Priuralsk (Obdorsk) dialect. This analysis is very close to that of Honti (1984: 22-24) on the dialects of Nizyam, Sherkaly and Berëzovo, and that of Onyina (2009: 14-15) on the Synya dialect. According to Honti and Onyina, *u* occurs only in the first syllable, leaving only three to four vowels for the other syllables.

In the new dictionary (Valgamova & al. 2011), the reduced vowel *ə* has its own letter, which is not as common in the other Khanty orthographies. Usually it is not marked at all, it is misleadingly marked with the full vowel *a*, or it is marked with *ă* if diacritics have been used. During the earlier stages of developing Northern Khanty's orthography, it was sometimes marked with Cyrillic *ы*. Furthermore, when Cyrillic letters are used, they often have more than one reading. For example, the Cyrillic *a* can have three readings (*a* or maybe *ā*, *ă*, and *ə*), the Cyrillic *ă* two readings (*ă* and *ə*), and the Cyrillic *ы* two readings (*ə,* and *i* after a non-palatalized consonant). For this reason, the younger generations of Khanty speakers and literary language users are finding it difficult to tell the Cyrillic *a*, *ă* and *ы* letters apart. In many grammatical forms, *ə* alternates with zero. In the new dictionary (Valgamova & al. 2011), there are some words analyzed as being bisyllabic that were earlier written as being monosyllabic, e.g. *xăməɭ* 'sun; day', usually written *xămɭ* (the plural form in both cases is *xămɭəm)*. In this paper, I will compare the various versions of Northern Khanty orthographies used in newspapers, textbooks, and literature from different periods in order to ascertain what lies behind these heterogeneous solutions, e.g. has Tundra Nenets potentially influenced the orthography due to its proximity? Some native writers tend to use labial vowels after the initial syllable in the vicinity of labial consonants, because they do not hear the reduced vowel there. This has, however, been rejected by university scholars.

Sources

Honti, L. 1984: *Chrestomathia ostiacica.* Budapest.
Nikolaeva; I. A. 1995: *Obdorskij dialekt chantyjskogo jazyka.* Moskva/Hamburg.
Onyina, Sz. 2009: *Szinjai hanti társalgási szótár (nyelvtani vázlattal és szójegyzékkel).* Budapest.
Steinitz, W. 1975: *Ostjakologische Arbeiten.* Band I. Budapest-Berlin-Den Haag.
Valgamova, S. I., N. B. Koshkareva, S. V. Onina & A. A. Shijanova 2011*: Dialektologičeskij slovar' hantyjskogo jazyka (šuryškarskij i priural'skij dialekty).* Ekaterinburg.

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WORKSHOP 25

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What is in a morpheme? Theoretical, experimental and computational approaches to the relation of meaning and form in morphology

Stela Manova, Harald Hammarström & Itamar Kastner
(University of Vienna; Max Planck Institute for the Science of Human History, Jena; & Humboldt University of Berlin)

There are enough examples in science that obvious things are the most difficult to explain: issues such as how inorganic matter turns into organic or how a child learns to understand language. There is a similar problem in morphology: morphemes consist of phonemes but only the former can be associated with meaning (systematically) and it is a non-trivial question how this association happens.

There are three possible ways to approach the relation of meaning and form:

A. Form and meaning emerge simultaneously
B. The association is from meaning to form
C. The association is from form to meaning.

The most important difference between these scenarios consists in the fact that in scenarios B and C meaning may be assigned at the level of word, i.e. one may claim that morphemes do not have meaning of their own or even that there are no morphemes at all (in scenario B). (Information (syntactic/morphological/morphosyntactic) that does not refer to (phonological) form is called 'meaning' herein.)

Theoretical, experimental and computational linguistics approach word structure from different perspectives and seem to diverge with respect to which is the "right" scenario. Theoretical linguistics is interested in generalizations over meaning (features) (scenarios A and B), both within languages and typologically: e.g., only a language with plural can have dual (Greenberg 1963). Experimental linguistics researches perception, parsing, processing and production of word structure; computational linguistics is focused on parsing and distribution of word structure. Consequently, both experimental and computational linguistics follow scenario C and their findings seem to contradict theoretical linguistics. Nevertheless, theoretical linguists (seem to) agree that speakers have somewhat reliable intuitions about n-gram frequency over sub-word units. Thus, the goals of this workshop are threefold: to encourage interdisciplinary discussion; to clarify and unify assumptions; and to pave the way for collaboration.

Let us illustrate the different scenarios. *Minimalist Morphology (MM)* (Wunderlich 1996) is an example of **scenario A**. In MM, a morpheme has form and meaning; (inflectional) morphemes are heads; a morpheme minimally includes a representation of its phonological form, a specification of the base's category and an output specification:

(1)   German: /st/; [+min]; [+2]/+V   (Stiebels 2011)

[+min] indicates that the form is a morpheme; [+2] = 2 person; "+V" indicates that *-st* attaches to verbs; the slash / stands for "output/input".

In *Realizational Morphology (RM)*, theories such as *Paradigm Function Morphology (PFM)* (Stump 2001) and *Distributed Morphology (DM)* (Halle & Marantz 1993), meaning and form are modeled separately and semantic derivation precedes formal derivation, the so-called late insertion (**scenario B**). Roughly, one can predict form based on meaning, while the opposite does not hold and therefore the form-to-meaning direction is not activated in RM.

PFM manipulates morphosyntactic property sets:

(2) $PF(\langle L,\sigma\rangle) = \langle R,\sigma\rangle$ (Stewart & Stump 2007)

The value of the paradigm function (PF) of a paradigm cell $\langle L,\sigma\rangle$ (L=lexeme) is the pairing of this cell's realization R with the morphosyntactic property set σ. Such a theory does not necessarily need morphemes.

DM relies on syntactic structures and 'morpheme', [past] in (3), is an abstract unit that refers to a syntactic terminal node (Infl in this case) and its content, not to the phonological expression of that terminal:

(3)   Vocabulary of English (fragment) (Bobaljik 2015)
           a. [past] ↔ -t /]$_V$ _ ; where V ∈ {*dream, dwell* etc.}
           b. [past] ↔ Ø /]$_V$_ ; where V ∈ {*run, hit, fly* etc.}
           c. [past] ↔ -d /] $_V$_

To explain the fact that in DM syntactic structure derives morphological structure, Müller (2016) refers to the meaning-form dichotomy as two different dimensions of a linguistic unit: a representational and an algorithmic one respectively.

The assumption that meaning precedes exponence is claimed to make RM superior in comparison to incremental theories of morphology that follow scenario A because in RM derivation takes place at an abstract level and is always compositional, while exponence often entails idiosyncrasies.

On the other hand, affixes are directly accessible through their form (**scenario C**) and can be identified and processed even without having a contentful stem to attach to, as evidenced by recent *psycholinguistic studies*. Crepaldi et al. (2016) demonstrates that prime non-words facilitate lexical decisions to target words ending with the same suffix and that the priming effect depends on the affix position in the non-word. Lázaro et al. (2016) uses suffixes as primes and shows that the prime suffix facilitates the recognition of words ending with that suffix. Both studies conclude that the priming effect of suffixes is not orthographic but morphological. Similar findings are reported in Beyersmann et al. (2016). Manova & Brzoza (2015) shows that if provided with a list of existing and non-existing suffix combinations without stems, native speakers can judge which combinations exist and which do not.

A subfield of *Computational Linguistics* called *Unsupervised Learning of Morphology (ULM)* is concerned with learning natural language's morphology from unannotated text corpora. Since form is given (but meaning is not), to segment words into morphemes, ULM relies on comparison, grouping and weighting of substrings (of letters) and their frequencies (see Hammarström & Borin 2011 for an overview of ULM research). Semantic representations of extracted form-based morphemes may also be inferred using the principle that semantically related morphemes tend to occur in similar contexts (e.g., Baroni et al. 2002).

The workshop will provide a platform for exchange of ideas and for an interdisciplinary discussion of the meaning-form issue in morphology. The questions to be addressed include, but are not limited to, the following:

1. What information is encoded in a morpheme?
2. Does an analysis with emphasis on either meaning (scenario B) or form (scenario C) provide evidence for a (complete) separation of form and meaning in the morpheme?
3. Could it be that a morpheme relates meaning and form and semantic stimuli activate derivation through meaning, while formal stimuli activate access through form?
4. How does morphology "emerge" in fieldwork, i.e. how does a fieldworker decide that something is a morpheme, is it according to A, B or C?
5. How does morphology "emerge" in child language?
6. What exactly does a language borrow when it borrows morphological structure such as, e.g., a plural nominal marker, if that language already has plural and its speakers are not expected to be able to perform a morpheme analysis of the donor language's words?
7. If important generalizations are (necessarily) stated over either meaning or form, how are the two types of generalizations related to one another; and are they both needed for an adequate characterization of speakers' knowledge of their language?
8. Can a computational analysis based on n-gram frequency distributions and distributional semantics account for the kinds of generalizations that interest theoretical linguists and motivate the B (or A) perspective?

As an alternative, non-linguistic source of inspiration, we would like to turn your attention to the following video on how computers learn to understand pictures: https://www.youtube.com/watch?v=40riCqvRoMs (the speaker, Fei-Fei Li, is an Associate Professor of Computer Science at Stanford University). Computer vision is one of the most important areas of research in machine learning and many striking analogies with linguistic analyses can be made.

References

Baroni, M., J. Matiasek & H. Trost (2002). Unsupervised discovery of morphologically related words based on orthographic and semantic similarity. In Mike Maxwell (ed.), *Proceedings of the Workshop on Morphological and Phonological Learning of ACL/SIGPHON-2002*, 48-57. East Stroudsburg PA: ACL.

Beyersmann, E., J.C. Ziegler, A. Castles, M. Coltheart, Y. Kezilas & J. Grainger (2016). Morpho-orthographic segmentation without semantics. *Psychon Bull Rev* 23(2): 533-9.

DOI: 10.3758/s13423-015-0927-z.

Bobaljik, J. (2015). Distributed Morphology. Ms. University of Connecticut. Available at: http://bobaljik.uconn.edu/papers/DM_ORE.pdf

Crepaldi D., L. Hemsworth, C. J. Davis & K. Rastle (2016). Masked suffix priming and morpheme positional constraints. *Q J Exp Psychol (Hove)* 69(1): 113-28.

DOI: 10.1080/17470218.2015.1027713.

Greenberg, J. H. (ed.) (1963). *Universals of Human Language*. Cambridge, Mass: MIT Press.

Halle, M. & A. Marantz (1993). Distributed morphology and the pieces of inflection. In Hale K. and S. J. Keyser (eds.), *The view from building 20*, 111-176. Cambridge, MA: MIT Press.

Hammarström, H. & L. Borin (2011). Unsupervised Learning of Morphology. *Computational Linguistics* 37(2): 309-350.

Lázaro, M, V. Illera & J. Sainz (2016). The suffix priming effect: Further evidence for an early morpho-orthographic segmentation process independent of its semantic content. *Q J Exp Psychol (Hove)* 69(1): 197-208. DOI: 10.1080/17470218.2015.1031146.

Manova, S. & B. Brzoza (2015). Suffix combinability and the organization of the mental lexicon. Paper presented at the *10th Mediterranean Morphology Meeting (MMM)*, Haifa, Israel, 7-10 September 2015. Handout available at:
http://homepage.univie.ac.at/stela.manova/uploads/1/2/2/4/12243901/manova_brzoza_mmm2015.pdf

Müller, G. (2016). Minimize Satisfaction in Harmonic Serialism. Paper presented at the workshop *The Word and the Morpheme*. Humboldt University of Berlin, 22.9-24.9.2016. Abstract available at:
https://www.angl.hu-berlin.de/department/staff/artemis_alexiadou/abstracts/muller.pdf

Stewart, T. & G. Stump (2007). Paradigm Function Morphology and the Morphology–Syntax Interface. In G. Ramchand & C. Reiss (eds.), *The Oxford handbook of linguistic interfaces*, 383-421. Oxford: Oxford University Press.

Stiebels, B. (2011). Minimalist Morphology. Ms. University of Leipzig. Available at: http://home.uni-leipzig.de/stiebels/papers/handbook_morphology_stiebels_mm-2011.pdf

Stump, G. T. (2001). *Inflectional morphology*. Cambridge: Cambridge University Press.

Wunderlich, D. (1996). Minimalist morphology: the role of paradigms. In G. Booij & J. van Marle (eds.), *Yearbook of Morphology 1995*, 93–114. Dordrecht: Kluwer.

Morphological priming of Dutch complex verbs is independent of semantic transparency

Ava Creemers, Amy Goodwin Davies, & Robert J. Wilder
(University of Pennsylvania)

This paper provides novel psycholinguistic data suggesting that morphological structure is explicitly represented in memory (cf., Stockall and Marantz 2006; Taft 2004), contra previous claims that morphology should be attributed to mere interactions between form and meaning (e.g., Baayen et al. 2011; Gonnerman et al. 2007). The extent to which morphemes are semantically compositional has been shown to influence morphological decomposition in French and English (Feldman et al. 2004; Longtin et al. 2003; Marslen-Wilson et al. 1994; Rastle et al. 2000), but not in German (Smolka et al. 2014). This paper investigates the role of semantic transparency in the lexical representation of morphologically complex verbs in Dutch, while teasing apart semantic and morphological effects. We show that morphological priming is independent of semantic transparency in Dutch complex verbs, similar to the German results.

Method 32 adult native speakers of Dutch took part in an auditory primed lexical decision experiment which manipulates prime–target pairs with respect to their morphological, semantic, and phonological relatedness. Simplex stems (e.g., *bieden*, 'offer') function as targets, and are primed by prefixed and particle verbs that are either both semantically and morphologically related (MS: *aan-bieden*, 'offer'), only

morphologically related (M: *ver-bieden*, 'forbid'), phonologically related (Ph, *be-spieden*, 'spy'), or unrelated (C: *op-jagen*, 'hurry, rush'). Critical items were distributed over 4 lists according to a Latin square design, so that participants saw each target word only once.

Table 1: Conditions and example critical items in Experiment 1, for the stem (i.e., the target) and the primes in the both Morphologically and Semantically related (MS), purely Morphologically related (M), Phonological (Ph) related, and Control conditions.

Stem	MS	M	Ph	Control
bieden	aanbieden	verbieden	bespieden	opjagen
'offer'	'offer'	'forbid'	'spy'	'hurry, rush'
werpen	afwerpen	ontwerpen	aanscherpen	uitdraaien
'throw'	'throw off'	'design'	'sharpen'	'print out'
houden	behouden	ophouden	aanschouwen	vermijden
'hold, keep'	'retain, keep'	'stop'	'see'	'avoid'

Results Linear mixed-effects models were used to analyze log-transformed response times, which indicate that both MS, M complex verbs significantly facilitate lexical decision of their stem compared to the Control condition ($p < 0.05$), while the phonological condition did not ($p = 0.109$) (Figure 1). In line with the aforementioned German results, this shows that in Dutch complex verbs, semantic relatedness is not a precondition for the occurrence of morphological priming, suggesting that morphological identity is distinct from mere semantic and phonological similarity.

We will also report on follow-up studies that are currently being conducted, which include primes that are semantically but not morphologically related (e.g., *ver-lenen*, 'offer, grant'), and manipulate the number of intervening items between prime and target to further disentangle semantic and morphological effects (cf., Kouider and Dupoux 2009).
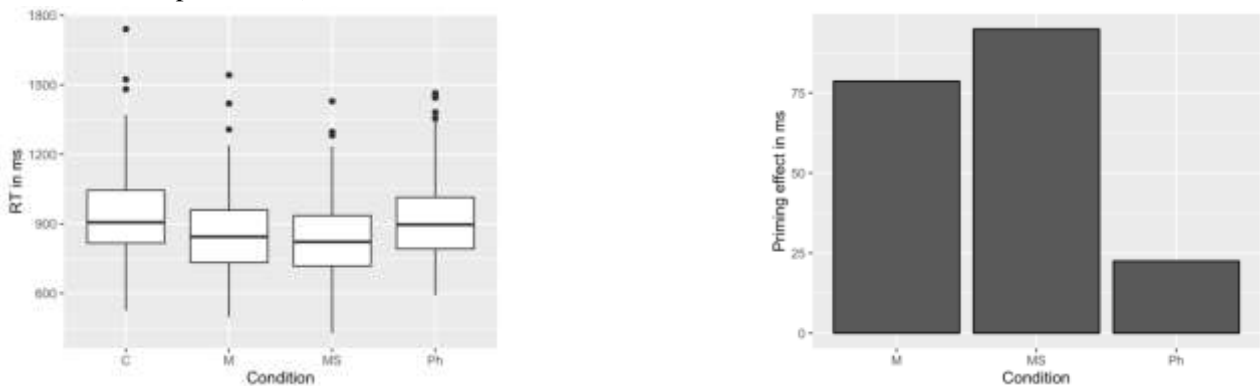
Figure 1: Reaction times Experiment 1 for the Control (C) condition, the purely Morphologically related (M), both Morphologically and Semantically related (MS), and Phonologically related (Ph) conditions.

Figure 2: Priming effects (Control minus M/MS/Ph) induced by purely Morphologically related (M), both Morphologically and Semantically related (MS), and Phonologically related (Ph) prime-target pairs.

References

Baayen, R. H., Milin, P., Durdevic, D. F., Hendrix, P., & Marelli, M. (2011). An amorphous model for morphological processing in visual comprehension based on naive discriminative learning. *Psychological Review*, 118 (3), 438–481.

Feldman, L., Soltano, E., Pastizzo, M., & Francis, S. (2004). What do graded effects of semantic transparency reveal about morphological processing? *Brain and Language*, 90 (1), 17–30.

Gonnerman, L. M., Seidenberg, M. S., & Andersen, E. S. (2007). Graded semantic and phonological similarity effects in priming: Evidence for a distributed connectionist approach to morphology. *Journal of Experimental Psychology: General*, 136 (2), 323–345.

Kouider, S. & Dupoux, E. (2009). Episodic accessibility and morphological processing: Evidence from long-term auditory priming. *Acta Psychologica*, 130 (1), 38–47.

Longtin, C.-M., Segui, J., & Halle, P. A. (2003). Morphological priming without morphological relationship. *Language and Cognitive Processes*, 18 (3), 313–334.

Marslen–Wilson, W. D., Tyler, L. K., Waksler, R., & Older, L. (1994). Morphology and meaning in the English mental lexicon. *Psychological Review*, 101 (1), 3–33.

Rastle, K., Davis, M. H., Marslen-Wilson, W. D., & Tyler, L. K. (2000). Morphological and semantic effects in visual word recognition: A time-course study. *Language and Cognitive Processes*, 15 (4-5), 507–537.

Smolka, E., Preller, K. H., & Eulitz, C. (2014). 'Verstehen' ('understand') primes 'stehen' ('stand'): Morphological structure overrides semantic compositionality in the lexical representation of German complex verbs. *Journal of Memory and Language*, 72, 16–36.

Stockall, L. & Marantz, A. (2006). A single route, full decomposition model of morphological complexity: MEG evidence. *The Mental Lexicon*, 1 (1), 85–123.

Taft, M. (2004). Morphological decomposition and the reverse base frequency effect. Quarterly Journal of *Experimental Psychology Section A*, 57 (4), 745–765.

Effects of animacy on the processing of morphological Number: a cognitive inheritance? A psycholinguistic study

Francesca Franzon, Rosa Rugani, Dunia Giomo, & Chiara Zanini
(University of Padova, Department of Neuroscience; University of Padova, Department of General Psychology; University of Padova, Department of Neuroscience; & University of Padova, Department of Neuroscience)

Introduction. Language encodes into morphology only some of all the possible information present in the referential world. Some features are marked in the great majority of languages, such as the numerosity of the referents that is encoded into morphological Number (Corbett, 2000; Dryer, 2013). Other features do not surface so diffusely in morphological markings, yet they are pervasive in natural languages (Dahl, 2000). This is the case of animacy, that can ground Gender systems as well as constraint the surfacing of Number (Dixon, 1979; Smith-Stark,1974). The diffusion of numerosity and animacy could mirror their biological salience and phylogenetic ancestry at the extra-linguistic cognitive level. Human extra-linguistic numerical abilities can be observed in animal species (Cantlon & Brannon, 2007; Rugani et al., 2015), especially when counting salient animate entities such as social companions (Rugani et al., 2010). Does the saliency of animacy influence the morphological encoding of Number in language processing?

The study. We designed an experiment to test: i) the encoding of morphological Number in language processing and, ii) its interaction with the semantic interpretability of the morpheme with respect to animacy. In Italian, Gender and Number are mandatorily expressed in a fusive morpheme. In some nouns denoting animate referents, Gender encodes the sex of the referents and is semantically interpretable. In some other animate nouns, and in inanimate nouns, Gender is not interpretable at the semantic level (Di Domenico, 1997).

Methods. 20 nouns for each Type were selected: animate nouns with interpretable Gender (Anim_g, gatto - 'cat'), animate nouns with semantically uninterpretable Gender (Anim_i, ghepardo - 'cheetah'), inanimate nouns (Inanim, divano – 'couch'). Each noun was presented in two conditions of Number, namely singular and plural, for a total of 120 experimental trials. Othographic length and frequency of the nouns were controlled. 220 fillers were added.

36 Italian native speakers performed a phrase-completion task. Noun phrases consisting in a demonstrative followed by a noun), appeared on the screen one at a time. One or the other word lacked the inflectional morpheme. Participants had to press a button to insert -o (masculine singular) or another for -i (masculine plural). Experimental trials required completion only on noun; half of the fillers required completion on the demonstrative.

Results. Repeated measures ANOVA on accuracy measures revealed significant effects of: Number (by subject F=6.203, p<.05; by item F=8.819, p<.01), singulars were completed more accurately; Type (by subject F=6.203, p<.05; by item F=3.846; p<.05), Anim_g nouns were completed more accurately; Number xType (by subject F=6.203, p<.05 by item F=4.451; p<.05), revealing no difference between singular and plurals only in the Anim_g condition.

Discussion. It is easier to inflect for Number nouns when the inflectional morpheme is interpretable respect to a semantic feature related to animacy. The primacy of animacy in counting seem to be mirrored in morphological processing, suggesting that morphology is designed to easily express information that is salient from a cognitive point of view.

References

Cantlon, J.F., & Brannon, E.M. (2007). Basic math in monkeys and college students. PLoS Biology 5(12), 2912-2919.

Corbett, G. (2000). Number. Cambridge: CUP.

Dahl, O. (2000). Animacy and the notion of semantic gender. Trends in linguistics studies and monographs, 124, 99-116.

Di Domenico E. (1997) Per una teoria del genere grammaticale. Padova, Unipress

Dixon, R. M. W. (1979). Ergativity. Language 55, 59-138.

Dryer, M.S. (2013). Coding of Nominal Plurality. In: M.S. Dryer, & M. Haspelmath (eds.). The World Atlas of Language Structures Online. Leipzig: Max Planck Institute for Evolutionary Anthropology. Available online at http://wals.info/chapter/33.

Rugani, R., Regolin, L. & Vallortigara, G. (2010). Imprinted numbers: newborn chicks' sensitivity to number vs. continuous extent of objects they have been reared with. Developmental Science 13(5), 790-797.

Rugani, R., Vallortigara, G., & Regolin, L. (2015). At the root of the left–right asymmetries in spatial–numerical processing: from domestic chicks to human subjects. Journal of Cognitive Psychology 27 (4), 388-399.

Smith-Stark, T.C. (1974). The plurality split. M.W. La Galy, R.A. Fox, & A. Bruck, (eds). Papers from the Tenth Regional Meeting, Chicago Linguistic Society. Chicago: Chicago Linguistic Society, 657–671.

Entrenchment in comprehension constrains semantic extension in production

Vsevolod Kapatsinski & Zara Harmon
(University of Oregon)

Zipf (1949) has argued that high frequency of a form-meaning mapping makes the form likely to be extended to novel uses by making the form more accessible. On the other hand, research on language acquisition has suggested that high frequency of a form-meaning mapping makes one more confident that the form is not used for other purposes (entrenchment; Braine & Brooks 1995). In this work, we reconcile these results by showing that high frequency causes semantic extension in production but entrenchment in comprehension. Furthermore, entrenchment in comprehension results in a system of one-to-one form-meaning mappings that can then be transferred to production.

We exposed 136 adult native English speakers to one of two miniature artificial languages, Dan or Nem. Both languages had two plural non-diminutive suffixes and two singular diminutive suffixes. The languages differed only in the identity of the suffix that was more frequent than others: the plural non-diminutive suffix *-dan* in Dan and the diminutive singular *-nem* in Nem. Participants learned the languages through passive exposure to spoken suffixed nouns paired with pictures. They were then tested in production and comprehension. In the production test, participants had to name pictures using one of the suffixes. In the comprehension test, they had to click on the right picture given a suffixed noun. Importantly, the tests included a novel meaning, diminutive plural (DIM.PL), never presented in training.

We varied the order of the two tests. When production preceded comprehension in Experiment I, participants extended the frequent suffix to the novel meaning in production: a form was significantly more likely to be chosen to express DIM.PL when it was frequent during exposure (β=8.46, z=2.89, p=0.00385; based on a logistic mixed-effects model with maximal random effects structure). Out of 70 participants who experienced this order of tests, 49 (70%) were 'extenders'. For these participants, the form used most often for DIM.PL was a form used most often to refer to one of the original meanings. At the same time, the frequent suffix was the least likely suffix to be mapped onto the novel meaning in comprehension; forms were mapped onto DIM.PL significantly less often when they were frequent in training (β=5.883, z=4.00, p<0.0001).

When comprehension preceded production, in Experiment II, the frequent suffix was least likely to map onto the novel meaning in both comprehension and production. In particular, forms were less likely to be used to refer to DIM.PL when they were frequent (β=-8.509, z=-2.633, p=.00846), a reversal in the effect of frequency within the production task relative to Experiment I. Out of the 66 participants in Experiment II, only 14 (21%) were extenders; the others assigned one form to each of the three meanings (a significantly lower proportion of extenders than in Experiment I; $\chi^2(1)$=30, p<0.00001).

We conclude that entrenchment in comprehension can constrain semantic extension of frequent forms by causing participants to settle into a system of mutually exclusive form-meaning mappings.

References:
Braine, M. D. S. & Brooks, P. (1995). Verb argument structure and the problem of avoiding an overgeneral grammar. In M. Tomasello & W. Merriman (Eds.), *Beyond names for things: Young children's acquisition of verbs*. Hillsdale, NJ: Erlbaum.

Zipf, G. K. (1949). *Human behavior and the principle of least effort: An introduction to human ecology*. Addison-Wesley Press.

Morpheme Repair

Roland Pfau
(University of Amsterdam)

Background. In spontaneous speech errors, an erroneous string is sometimes brought in line with grammatical constraints thanks to a post-error repair strategy ("accommodation"; Garrett 1980). Repairs may involve morphosyntactic features (e.g. gender in German), but they may also have an impact on the choice of derivational morphemes. For illustration, consider the examples in (1). In the English stem exchange in (1a), the error element *care* appears with the appropriate derivational suffix, which, however, is different from the suffix present in the intended utterance (Fromkin 1973). Similarly, in the self-corrected German slip in (1b), the stem *erzähl* surfaces with a nominalizing suffix that is not part of the intended utterance.

(1) a. *I think it's **care**-ful to measure with **reason***
          (intended: *it's reason-able to measure with care*)

  b. *er   hat   ein-e **Erzähl**-ung, äh,   ein-en Schwank [...]   erzähl-t*
      he   has   a-f.acc tell-nmlz(f), er,   a-m.acc tale(m) [...]   tell-part
      'He has told a (merry) tale from his youth.'

Research Question. What can the apparent repair of derivational morphemes in speech errors like those in (1) tell us about the relation between form and meaning in morphology?

Account. Based on (mostly German) speech errors, drawn from a corpus of 829 slips, I will argue for a form-follows-meaning approach couched within Distributed Morphology (Halle & Marantz 1993). However, I will depart both from accounts that argue that derivational morphemes are "functional roots" drawn from the Lexicon (Kihm 2005) and accounts that assume late insertion of derivational morphemes at PF (Harley & Noyer 1998; Marantz 2001). I will argue that both views are problematic in light of the speech error data. First, a functional root account would have to assume that the Lexicon is accessed again after the error has taken place in order to select the appropriate derivational morpheme. Second, German nominalizing suffixes are gender-relevant – as is evident from (1b), where the suffix *-ung* contributes the feature [+fem], which is copied onto the determiner. Consequently, morpheme insertion must precede feature copy, i.e. it cannot apply at PF.

  Instead, I will argue that the slip data provide strong evidence for the assumption that derivational morphemes are inserted post-syntactically at the level of Morphological Structure based on the licensing environment in which a root surfaces (e.g. [+d] in (1b)). This account has the advantage that all apparent repairs come for free, as they involve processes that apply in the course of the derivation anyway (i.e. morpheme insertion and gender copy in (1b)).

In addition, I will discuss the complicating fact that for many roots, alternative nominalizations are available. √erzähl in (1b), for instance, might as well combine with the agentive suffix *-er* (yielding *Erzähler* 'narrator'). This suggests that the insertion of a derivational morpheme is further influenced by DP-internal functional structure (Alexiadou 2001; Harley 2009). Actually, the speech error patterns provide intriguing psycholinguistic evidence for the assumption of such additional functional structure.

References

Alexiadou. 2001. *Functional structure in nominals*. Benjamins.

Fromkin. 1973. Introduction. In Fromkin (ed.), *Speech errors as linguistic evidence*. Mouton, 11-45.

Garrett. 1980. Levels of processing in sentence production. In Butterworth (ed.), *Language production*. Academic Press, 177-220.

Halle & Marantz. 1993. Distributed Morphology and the pieces of inflection. In Hale & Keyser (eds.), *The view from building 20*. MIT Press, 111-176.

Harley. 2009. The morphology of nominalizations and the syntax of vP. In Giannakidou & Rathert (eds.), *Quantification, definiteness, and nominalization*. OUP, 321-343.

Harley & Noyer. 1998. Licensing the non-lexicalist lexicon. *MITWPL* 32, 119-137.

Kihm. 2005. Noun class, gender, and the lexicon-syntax-morphology interfaces. In Cinque & Kayne (eds.), *Oxford handbook of comparative syntax*. OUP, 459-512.

Marantz. 2001. Words. Paper presented at *WCCFL 20*, USCLA.

Gereon Mueller

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Doing form and meaning in a field: A few reflections on Buriat and Nenets

Ekaterina Lyutikova & Sergei Tatevosov
(Lomonosov Moscow State University)

Overview. In this paper we address issues surrounding the form-meaning relationship as instantiated in the methodology of field linguistics. The goal of this study is two-fold. First, we want to argue that, despite a few run-of-the-mill examples found in textbooks on field linguistics, morphological patterns of underrepresented languages provide us with excessive evidence that a certain class of semantic generalizations (broadly conceived) can only be properly identified through their formal manifestation and not the other way around. Secondly, we present the results of two case studies that support this argument. One comes from the morphological encoding of event structure, the other concerns a proper representation of the case subsystem of a nominal inflection. Data for the study have been accumulated in the fieldwork on Tundra Nenets (Uralic) and Buriat (Altaic).

Objectives. Standard fieldwork practices (e.g. Crowley 2007) are unequivocally based on the meaning → form techniques. The opposite path in which one first identifies sequences of segments as "morphemes" and then assigns "denotations" to them is not something that fieldworkers normally do.

We want to make a contribution to the discussion by examining two cases where the form → meaning way of doing morphology seems to be necessary not just for arriving to a theoretically attractive analysis, but even for establishing right empirical generalizations about the observed morphological patterns.

Case studies. One case study comes from Tundra Nenets (Samoyedic), where one finds the pattern that looks like unconditioned allomorphy of a Special Finite Stem of inchoatives (Salminen 1997, 1998). Relying on the patterns of stem formation attested elsewhere we argue that the right way treating (1) would be to posit three distinct morphemes that merge on top of the inchoative, as in (2), and force certain operations on the event structure of a verbal predicate.

The pattern in (2) was missed in the previous accounts since due to independent semantic reasons the basic stems -l-ø and -l-∅, unlike the corresponding SFSs, only surface in a limited amount of morphosyntactic configurations.

The other case is nominal morphology of Buriat (Mongolic). The traditional description of case morphology is shown in (3) (Sanzheev 1941). We argue that the right morphological generalization is in (4) and that « case endings » consist of two layers of morphology, the inner one being allocated for the elements {∅, ɛ, i}, the outer one reserved for {∅, n, je}. (4) predicts that the nominal paradigm is the Cartesian product of the two sets, (5), and this prediction is borne out.

In sum, morphological patterns of underrepresented languages provide us with excessive evidence that a certain class of semantic generalizations can only be identified through their formal manifestation and not the other way around. Overall, the less a semantic or functional feature has to do with well-established categories, the more likely it is to require formal clues to be recognized by fieldworkers.

Examples

(1)   Basic stem: -la Special finite stem: -li-, -le-yø-, -l-yø

(2)   a. Basic stem: -l-a   Special finite stem: -le-yø-
        b. Basic stem: -l-ø   Special finite stem: -li-
        c. Basic stem: -l-∅   Special finite stem: -l-yø

(3)   GEN   -ɛ   (4)   GEN   -ɛ-∅
                -in   -i-n
        ACC   -je   ACC   ∅-je
                -ije   -i-je

(5)   ∅   =traditional nominative
                ∅   n   ←not in the traditional description, not attested
                    je   ← an allomorph of traditional accusative
                    ∅   not in the traditional description, attested
        N   i   n ←   = an allomorph of traditional genitive
                    je   = not in the traditional description, attested
                    ∅   an allomorph of traditional genitive
                ɛ   n   not in the traditional description, attested
                    je   not in the traditional description, attested

References

Crowley 2007 — Crowley, Terry. *Field linguistics: a beginner's guide*. OUP Oxford, 2007.

Salminen 1997 — Salminen, Tapani. *Tundra Nenets inflection*. Mémoires de la Société Finno-Ougrienne 227. Helsinki, 1997.

Salminen 1998 — Salminen, Tapani. Nenets. *The Uralic Languages*, London, 1998. Pp. 516—547.

Sanzheev 1941 — Sanzheev, Garma D. *Grammatika buriat-mongol'skogo yazyka* [A reference grammar of Buriat]. Moscow-Leningrad: Academy of Science Publishing, 1941.

Forms with(out) meaning: What can we learn from morphomes?

Borja Herce

(University of the Basque Country & University of Surrey)

The morphological component of grammar is usually conceived as a bridge from meaning to form or viceversa. In an ideal language, we could find only biunique correspondences between meanings and exponents, which would render the form-meaning mappings trivial. (Un)fortunately, in real languages we do not find such straightforward connections exclusively. Instead, we often find inflectional classes, syncretism, deponency and other phenomena which make the mappings between form and meaning either many-to-one or one-to-many. It is these complications that require us to posit an independent morphological component in language (Aronoff 1994).

In order to maintain the bridge-like character of the form-meaning pairings of morphology, frequent solutions have been to either incorporate a greater degree of information/granularity in individual entries (e.g. 3SG.PRES.SUBJ.CONJUGATION3) at the cost of not dealing exclusively with meaning anymore, or to posit homonymous entries whenever we would expect there to be more than one meaning under the same form (e.g. -ibus$_1$: DAT.PL, -ibus$_2$: ABL.PL). Underspecification, rules of referal and analogous mechanisms have also been proposed in morphological theory to accommodate less straightforward form-meaning mappings. Even these, however, are not powerful enough to capture some of the patterns found in natural languages (e.g. in Kayardild, see Round 2016). An alternative would be to abandon the widespred idea of morphology as a mere vehicle for meaning or morphosyntactic features (see e.g. Carstairs-McCarthy 2010) and to acknowledge structures and motivations internal to the morphological domain.

If the morphological component is not (solely) a bridge between form and meaning we can systematically expect: i) instances of meaning without form and ii) instances of form without meaning. Concerning i), the concept of 'morphological zero' is well known (e.g. Mel'čuk 2002), as are its problems. Much easier than tracing the existence, distribution and properties of something without a visible exponence is to focus on ii), visible exponents without a (clearcut) meaning. This will be the purpose of the present paper.

So-called 'morphemes' (Aronoff 1994, O'Neill 2013) or also more recently 'meromorphomes' (Round 2013) are exponents with either no meaning of their own or, alternatively, with a meaning which can hardly be delimited on distributional grounds:

	'potato'	'hair'	'bump'
NOM.SG	tac	nh<u>i</u>m	p<u>o</u>ny
GEN.SG	tac-kä	nh<u>i</u>m	p<u>o</u>ny-kä
LOC.SG	tac	nh<u>i</u>m-kä	p<u>o</u>ny-kä

	'grow'		'run'	
	IND	SUBJ	IND	SUBJ
1SG	crez-k-o	crez-k-a	corr-o	corr-a
2SG	crec-es	crez-k-as	corr-es	corr-as
3SG	crec-e	crez-k-a	corr-e	corr-a

Table 1: Noun inflection in Nuer (Frank 1999)   Table 2: Verb inflection in Spanish

Because of their peculiarities, morphomes can help us understand better the nature of morphological exponence in relation to meaning as well as the cognitive foundations and structuring of the morphological component of language as a whole. This may be the reason why the study and theoretical discussion of the phenomenon is becoming increasingly popular (e.g. Luis & Bermudez-Otero 2016).

From the perspective of Canonical Typology (Corbett 2005), my purpose will be to narrow down what precisely counts as a canonical morpheme (by paying attention to meaning, phonological or syntactic conditioning, distribution, type of exponent, allomorphy, type frequency etc.). Empirically, on the basis of the analysis of relevant phenomena from a variety of languages, I will explore which are the most common deviations from the canonical ideal and which properties of morphemes tend to cluster together cross-linguistically.

References

Aronoff, Mark. 1994. *Morphology by Itself: stems and inflectional classes.* Boston: MIT Press.

Carstairs-McCarthy, Andrew. 2010. *The evolution of morphology*. Vol. 14. Oxford: Oxford University Press.

Corbett, Greville G. 2005. The canonical approach in typology. In Zygmunt Frajzyngier, Adam Hodges & David S. Rood (eds.), *Linguistic diversity and language theories* (Studies in Language Companion Series 72), 25-49. Amsterdam: John Benjamins.

Frank, Wright Jay. 1999. *Nuer noun morphology.* PhD diss., State University of New York at Buffalo.

Luis, Ana R. & Ricardo Bermudez-Otero (Eds.). 2016. *The Morphome Debate.* Oxford: Oxford University Press.

Mel'cuk, Igor. 2002. Towards a formal concept 'zero linguistic sign'. In *Morphology 2000: Selected Papers from the 9th Morphology Meeting, Vienna, 25-27 February 2000*, vol. 218. 241. Amsterdam: John Benjamins.

Round, Erich R. 2013. Rhizomorphomes, meromorphomes, and metamorphomes. In Matthew Baerman, Dunstan Brown & Greville Corbett (Eds.), *Understanding and Measuring Morphological Complexity.* 29-52. Oxford: Oxford University Press.

Round, Erich R. 2016. Kayardild inflectional morphotactics is morphomic. In Ana R. Luís & Ricardo Bermúdez-Otero (Eds.), *The Morphome Debate:* 228-247. Oxford: Oxford University Press.

Mining corpora for form-meaning associations: Perspectives for corpus-driven typology

Taras Zakharko
(University of Zurich)

It has been suggested, by typologists and grammar theorists alike, that it is more useful to think of languages in terms of probabilistic patterns rather than absolute universals (Dryer, 1998; Bickel, 2007; Bresnan, 2007). At the same time, typology operates by compressing information: what is known about a language is reduced to a collection of categorical statements. These statements are derived from language data via a long chain of abstractions performed by human researchers. While very

successful, this approach suffers from a number of limitations: a) true variation is often underrepresented, b) it often abstracts away too much, and c) the abstractions often lack transparency. This study attempts to approach these issues by adopting an information-theoretic approach. Here, abstractions are derived directly from annotated corpus data, using a knowledge discovery algorithm of our design. To evaluate viability of the approach, we focus on clause linkage as a particularly complex area of grammar that is closely tied to discourse patterns.

We have annotated a sample of spoken corpora (6000 predicates in total) for three languages: English, Latin and Chintang. Particular care was taken to properly isolate two levels of annotation: form (what analysable structural devices does the language use to convey a message?) and meaning (what is the actual conveyed message by the given linguistic expression in the given context?). To accomplish this, we have designed descriptive models that are able to capture elements of meaning without having to refer to linguistic notions. The annotations described the identity and relative status (e.g. agent-like or patient-like) of event participants, temporal properties, as well as status of the information (e.g. belief, inquiry, assumed common knowledge). The algorithm then examined predicate pairs, identifying statistically conspicuous patterns of associations between form and meaning.

The investigation of the resulting patterns reveals two primary results. First, in every of the investigated languages, the variables exhibited strikingly similar order of importance (in terms of their relevance to pattern discovery):

Morphosyntactic features > event time > assertion/presupposition/coreference > temporal structure > conjunctions > propositional attitude

That is, for all three languages, there were more patterns which were at least partially defined in terms of time specification than patterns defined in terms of propositional attitude or presence of conjunctions etc.. This is surprising, given the substantial differences between the languages. This result suggests that while the actual patterns can be very different between languages, the *information* that is relevant to establishing them is not.

The second result is that the algorithm was able to successfully identify meaningful patterns. The patterns included highly abstract discourse organisation devices (e.g. same-topic-information vs. new-topic-information), constructions with particular function (e.g. communication of intent and/or purpose), as well as syntactic patterns (e.g. converb constructions). Many of the discovered patterns involved non-obvious associations between the annotated variables and did not merely reflect what was annotated in the first place. This leads us to suggest that the language signal encodes more information than what is commonly assumed.

References

Bickel, Balthasar. 2007. Typology in the 21st century: major current developments. *Linguistic Typology* 11. 239–251.

Bresnan, Joan. 2007. Is syntactic knowledge pobabilistic? experiments with the English dative alternation. In Sam Featherston & Wolfgang Sternefeld (eds.), *Roots: Linguistics in search of its evidential base*, Berlin: Mouton de Gruyter.

Dryer, Matthew S. 1998. Why statistical universals are better than absolute universals. *Papers from the 33rd Annual Meeting of the Chicago Linguistic Society* .

WORKSHOP 26

When "noun" meets "noun"

Steve Pepper & Francesca Masini

(University of Oslo & University of Bologna)

Research question

The workshop's goal is to investigate the strategies employed by the languages of the world to create complex denotations by using two (or more) nominals.

Description

Compounding is one of the most widespread methods of word-formation in the world's languages. That being the case, one might expect typological studies of compounding to offer interesting insights into the nature of conceptualization. So far, however, cross-linguistic research has not been very revealing in this regard. Bauer's (2001) investigation of an areally and genetically balanced sample of 36 languages has surprisingly few generalizations to report; Guevara & Scalise (2009), drawing on a database of 80,000 compounds, limit their conclusions to mostly formally defined scales of preference; while Štekauer, Valera & Körtvélyessy (2012) are primarily interested in the presence or absence of different types of compounding in their sample of 70 languages.

Two reasons can be posited for this state of affairs. Firstly, previous studies have aimed to cover the full range of compounding. Given that different types of compound often exhibit different properties (e.g. Mandarin has right-headed nominal compounds and left-headed verbal compounds), this can complicate the typology unnecessarily. Secondly, the purely formal point of departure of these studies leads to issues with cross-linguistic identification and the risk of excluding potentially interesting phenomena from the investigation. For example, while admitting Ger. *Eisen.bahn* [iron.track] 'railway', most definitions of compound exclude Fr. *chemin de fer* [track prep iron] 'railway', even though the constituent meanings, the resultant meaning, and presumably also the underlying cognitive processes, are essentially identical.

This workshop adopts a different perspective, one that involves a simultaneous narrowing and broadening of scope. First of all, instead of examining the whole gamut of compounding, it starts out from the more uniform phenomenon of noun-noun compounding. This represents a narrowing of scope. Secondly, it adopts a functional rather than a formal approach to defining the object of study, which results in a broadening of scope. This is because the *function* of noun-noun compounds – to provide names for complex concepts that involve two entities – is not theirs alone.

Thus, in addition to **noun-noun compounds** (e.g. *Eisenbahn*) and **prepositional compounds** (or "phrasal lexemes", e.g. *chemin de fer*), the same function is carried out by **relational compounds** in Slavic languages (e.g. Rus. *želez.naja doroga* [iron.adjz road] 'railway') and constructions that "compete" with them (Rainer 2013), **izafet constructions** in Turkic (e.g. Tur. *demir yol.u* [iron road.3sg] 'railway'), **construct state constructions** in Semitic (e.g. Modern Hebrew *mesila.t barzel* [track.con iron] 'railway'), and **genitive-like constructions** in many languages from around the world (e.g. Malagasy *lala.m.by* [road.pert.iron] 'railway').

What all of these constructions have in common is that they serve to name a complex concept via the combination of two "Thing-roots" (Haspelmath 2012), between which there is an unstated (or underspecified) relation. They are all *binominal naming constructions* (or "binominals" for short).

Viewing binominals from a functional perspective is an innovation in terms of language typology, but it is not totally without precedent. Three previous studies are especially noteworthy. Levi (1978) includes both nominal compounds and "non-predicative" (i.e. relational) adjective constructions under the cover term "complex nominal". Rainer's (2013) notion of relational adjectives "competing" with nominal compounds, genitives, prepositional phrases and "certain kinds of derivations" comes very close to the present conception of binominals. And so too does the use of the term "adnominal nominal modification" by Bauer & Tarasova (2013) to cover a range of constructions in which a noun is modified by another noun.

The commonality between such binominals can also be viewed in terms of Štekauer's model of onomasiological word-formation, according to which they are all Type 3 naming units (where "the determined (actional) element is not linguistically expressed", Štekauer 1998:10). Adopting this perspective encourages two further refinements, again involving a simultaneously narrowing and broadening of scope. The first is the exclusion of complex nominals of Štekauer's Type 1 and Type 2 that contain an "Action-root". As a consequence, synthetic compounds like *truck-driver* are considered *out of scope*. This is justified on the grounds that the presence of an actional element (here: drive) may be expected to involve different formal and semantic parameters, which (again) would complicate the typology unnecessarily.

The second refinement is based on the recognition that nominalizing affixes, like Eng. *-er* and Slovak *-ica*, and noun classifiers like Bora *-heju* ('hole-like object') can play one of the "nominal" roles in a Type 3 complex nominal. At least in terms of the cognitive processes involved, there is no difference between Eng. *banker* and *bankman*, despite one being formed through derivation and the other through compounding, or between Bora *túú.heju* [nose.cm(hole)] and Indonesian *lubang hidung* [hole nose], both of which mean 'nostril'. Consequently, nominalizing suffixes and noun classifier constructions that fulfil the basic criteria of 'binominal-hood' are considered *in scope*.

This approach to complex denotation cuts across traditional boundaries between morphology and syntax, and between compounding and derivation: it "divides the cake" in a new way that might reveal new insights into language and conceptualization. The goal of this workshop is to explore semantic and morphosyntactic aspects of binominals as defined here, along with frequency, productivity, and competition between different strategies, across a broad range of languages (in particular, lesser-studied and non-SAE languages) and along different dimensions (contrastive, typological, diachronic, acquisitional, cognitive).

References

Bauer, Laurie. 2001. Compounding. In Martin Haspelmath, Ekkehard König, Wolfgang Oesterreicher & Wolfgang Raible (eds.), *Language typology and language universals: an international handbook*,
695–707. Berlin: de Gruyter.

Bauer, Laurie & Elizaveta Tarasova. 2013. The meaning link in nominal compounds. *SKASE Journal of Theoretical Linguistics* 10(3). 2–18.

Guevara, Emiliano & Sergio Scalise. 2009. Searching for universals in compounding. In Sergio Scalise, Elisabetta Magni & Antonietta Bisetto (eds.), *Universals of language today*, 101–128. Amsterdam: Springer.

Haspelmath, Martin. 2012. How to compare major word-classes across the world's languages. *UCLA Working Papers in Linguistics, Theories of Everything* 17, Article 16. 109–130.

Levi, Judith N. 1978. *The syntax and semantics of complex nominals*. New York: Academic Press.

Rainer, Franz. 2013. Can relational adjectives really express any relation? An onomasiological perspective. *SKASE Journal of Theoretical Linguistics* 10(1). http://www.skase.sk/Volumes/JTL22/.

Štekauer, Pavol. 1998. *An onomasiological theory of English word-formation*. Amsterdam: John Benjamins.

Štekauer, Pavol, Salvador Valera & Lívia Körtvélyessy. 2012. *Word-formation in the world's languages: a typological survey*. Cambridge: Cambridge University Press.

Noun+Noun and Noun+Adjective juxtapositions in Polish: Syntactic schemas employed in building phrasal nouns

Bożena Cetnarowska

(University of Silesia)

Juxtapositions in Polish, i.e. multiword expressions (in the sense of Hüning and Schlücker 2015) which consist of a noun followed by a modifying relational adjective (N+A as in 1) or those containing a noun followed by a modifying noun marked with genitive case (N+N.gen, as in 2), belong to the fuzzy border between syntax and morphology.

(1) a. *dom*   *studencki*   b. *pociąg*   *osobowy*
         house.nom   student.adjz   train.nom   person.adjz
         'student dormitory'   'slow train'

(2) a. *dom*   *studenta*   b. *dom*   *kultury*
         house.nom   student.gen   house.nom   culture.gen
         'student dormitory'   'cultural centre; community centre'

N+N and N+A combinations are regarded as syntactic units by, among others, Willim (2001) and Szymanek (2010). Both constituents of multiword units are inflected and they are not linked by a vocalic interfix, which makes juxtapositions different from compounds proper in Polish, such as *gwiazdozbiór* (lit. star-lnk-set) 'constellation'. However, since their function is comparable to that of attributive or subordinate compounds (in the classification by Scalise and Bisetto 2009), juxtapositions are treated as a subtype of compounds by Laskowski (1984) and Nagórko (2016). The partly unpredictable semantic interpretation of multiword expressions, as shown by (1b) and (2b), also implies their compound-hood.

Given the recent work on multiword units, couched within the framework of Construction Morphology (e.g. Booij 2010, Hüning 2008, Masini 2009), it can be argued that in Polish some construction schemas are used both to create (or analyse) syntactic phrases and multiword lexical units (that is, juxtapositions). Some potential problems for such a hypothesis will be dealt with in this paper.

Multiword units with a classifying function exhibit more restrictions on their internal structure than corresponding noun phrases with a descriptive function, cf. the unacceptability of the phrasal noun **dom bardzo pijanego studenta* 'dorm for very drunken students'. Moreover, in noun phrases in Polish the adjectival descriptive modifier typically precedes the head noun (e.g. *piękna kobieta* 'beautiful woman') while in N+A juxtapositions the adjective typically follows the head N. The opposite orders are attested but marked. Furthermore, in (possessive) noun phrases the genitive modifier can occasionally precede the head noun, e.g. *dom dziadka* (house.nom grandpa.gen) 'grandpa's house' and *dziadka dom* (grandpa.gen house.nom) 'grandpa's house'. In contrast, the N.gen+N order is not possible in the case of juxtapositions, as in **kultury dom* (culture.gen house.nom), unacceptable in the intended reading 'cultural centre' (cf. 2b). The lack of reversibility of N+N.gen combinations will be

linked here with another property of phrasal names (as opposed to syntactic phrases), namely their 'kind' reading (Bücking 2010). Syntactic tests will be employed to show that nominal (genitival) modifiers or relational adjectives in attributive juxtapositions refer not to a particular individual (or object) but to a class (i.e. 'kind' or 'type') of individuals.

Selected references

Booij, Geert. 2010. *Construction Morphology*. Oxford: Oxford University Press.

Bücking, Sebastian. 2010. German nominal compounds as underspecified names for kinds. In Susan Olsen (ed.) *New Impulses in Word Formation*, 253-281. Hamburg: Helmut Buske Verlag.

Hüning, Matthias. 2010. Adjective + Noun constructions between syntax and word formation in Dutch and German. In Alexander Onysko and Sascha Michel (eds.), *Cognitive Perspectives on Word formation,* 195-215. Berlin, New York: De Gruyter Mouton.

Hüning, Matthias and Barbara Schlücker. 2015. Multi-word expressions. In Peter O. Müller, Ingeborg Ohnheiser, Susan Olsen and Franz Rainer (eds.) *Word-Formation. An International Handbook of the Languages of Europe*, vol. 1, 450-467. Berlin, München, Boston: De Gruyter.

Laskowski, Roman. 1984. Podstawowe pojęcia morfologii. In Renata Grzegorczykowa, Roman Laskowski, and Henryk Wróbel (eds.) *Gramatyka współczesnego języka polskiego. Morfologia*. , 9-57. Warszawa: PWN.

Masini, Francesca. 2009. Phrasal lexemes, compounds and phrases: A constructionist perspective. *Word Structure* 2(2). 254-271.

Nagórko, Alicja. 2016. Polish. In Peter O. Müller, Ingeborg Ohnheiser, Susan Olsen and Franz Rainer (eds.) *Word-Formation. An International Handbook of the Languages of Europe*, vol. 4, 2831-2852. Berlin, München, Boston: De Gruyter.

Scalise, Sergio and Antonietta Bisetto. 2009. Classification of compounds. In Rochelle Lieber and Pavol Štekauer (eds.), *The Oxford Handbook of Compounding,* 49–82. Oxford and New York: Oxford University Press.

Szymanek, Bogdan. 2010. *A Panorama of Polish Word-formation*. Lublin: Wydawnictwo KUL.

Willim, Ewa. 2001. On NP-internal agreement: A study of some adjectival and nominal modifiers in Polish. In Gerhild Zybatow, Uwe Junghanns, Grit Mehlhorn and Luka Szucsich (eds.), *Current Issues in Formal Slavic Linguistics*, 80-95. Frankfurt/Main: Peter Lang.

Constituent placement in relational adjective constructions in French and Polish

Christina Clasmeier & Inga Hennecke
(Bochum & Tübingen)

In the world's languages, the combination of two (or more) nominal concepts can be realized by very different types of constructions. In our contribution to the workshop, we will focus on A(djective)-N(oun) constructions, in particular, relational compounds in French and Polish, as well as on their binominal translation equivalents of the type NN and N Prep N. While Slavic languages commonly implement the combination of two nominal concepts via relational adjective constructions, Romance languages may also resort to other nominal constructions, such as noun-noun compounds or prepositional compounds.

According to Radatz (2001: 96), derived relational adjectives still contain the semantics of their nouns and may be derived from nouns by different rules and strategies. French appears to differ from other Romance languages and Latin in showing a more fixed position in adjective placement. In the same way, Polish differs from the other Slavonic languages by the much higher frequency of the postposition of a relational adjective (e.g. Polish *administracja państwowa* (NA) vs. Russian *gosudarstvennoe upravlenie* (AN) 'public administration').

The starting point of our talk is the hypothesis by Gawełko (2012), who states the existence of a common development of the AN => NA position in French, Latin and Polish. He characterizes French to be located at a more advanced stage of this development (NA for nearly all relational adjectives and most adjectives of quality), but Polish, in contrast, at the second, „transitional" stage (AN for the adjectives of quality and dominant NA for relational adjectives). However, as demonstrated by the enormous amount of studies on French as well as on Polish adjective placement, the empirical situation seems to be more complex. In French, this is partially due to its great variety of equivalent constructions in the formation of complex nominals.

In our talk, we will present results from a contrastive synchronic study using the French and Polish parts of the Parasol Corpus, a parallel corpus of belletristic texts. We aim at comparing the frequency of different types of AN/NA-constructions in French and Polish in order to test Gawełko's hypothesis. In a second step, we will analyse different types of constructions as translation equivalents to AN/NA-constructions, for instance Polish *rada nadzorcza* and its French N Prep N-equivalent *conseil d'administration*. We will complete our talk by comparing the synchronic results of our analysis to current diachronic studies on the topic.

The crosslinguistic comparison and detection of equivalence patterns aims to shed some light on the preference for different forms to express two nominal concepts, namely AN or NA combinations in Polish and French as well as NN or N Prep N constructions in French. For this purpose, Štekauer's cognitive onomasiological theory (Štekauer 2005) seems to be particularly suited, as it considers different productive types of word formation and different naming units.

In a conclusion, we will discuss the possible realizations of combinations of nominal concepts in French and Polish in this framework.

Selected References

Gawełko, Marek (2012): O szyku przymiotnika polskiego z perspektywy indoeuropejskiej. Poradnik Językowy 5, 30-42.

Hennemann, Anja & Plötner, Kathleen (2015): Das Adjektiv und seine nominalen Nachbarn – Eine korpusbasierte Untersuchung zur Adjektivstellung im Französischen, Spanischen, Italienischen und Portugiesischen. Berlin: Frank & Timme.

ParaSol: A Parallel Corpus of Slavic and other languages: http://slavist.de/ (last access: 12.01.2017)

Radatz, Ingo (2001): Die Semantik der Adjektivstellung. Eine kognitive Studie zur Konstruktion ‚Adjektiv + Substantiv' im Spanischen, Französischen und Italienischen. Tübingen: Niemeyer. Portugiesischen. Berlin: Frank & Timme.

Rainer, Franz (2013): Can relational adjectives really express any relation? An onomasiological perspective. SKASE Journal of Theoretical Linguistics 10(1).

Štekauer, Pavol (2005): Onomasiological approach to word formation. In: Pavol Štekauer & Rochelle Lieber (eds.): *Handbook of Word-Formation*. Dordrecht: Springer, 207-232.

Some morphological peculiarities of Balto-Slavic binominals and nominal derivatives

Arthur Laisis

(École pratique des hautes études – Paris)

Baltic and Slavic languages make an extensive use of binominal compounds. My aim is to survey and compare the history of one particular formation involving a suffix common to both language groups (going back to Proto-Indo-European *-i□o, cp. Latin *pater* 'father' → *patr-ius* 'paternal'). The original meaning of this suffix was possessive, as still exemplified in one-base lexemes (cf. Lithuanian derivative *arkl-ys* '(draught) horse' from *arkl-as* 'ard plough'). In Balto-Slavic, however, it also entered the formation of prefixal and compound nouns; in this case, it has lost its original possessive meaning and is used merely as a compositional suffix, consequently triggering a stem transfer (cp. Old Prussian *grēiwa-kaul-in* 'rib', -i□o-stem, with simple *caul-an* 'bone', o-stem).

The use of this suffix has clear limitations: it only applies to nominal stems (deverbative compounds have other formations) and is most productive in place and time names (e.g. Lithuanian *varda-dien-is* 'name-day' ← *vardas* 'name' + *diena* 'day', Russian *pod-moskov-'e* 'area around Moscow' ← *pod* 'under' + *Moskva* 'Moscow'). Its spread is not uniform among individual Baltic and Slavic languages. Indeed, while some languages, like Sorbian, hardly have any trace thereof, it has become characteristic of almost all types of Lithuanian binominals, replacing at times older competing suffixes; in this language, this morphological feature makes binominal compounds very similar to other nominal formations, such as compound adjectives, prefixed nouns and prefixed adjectives. Gender also happens to be an interesting feature in this formation: while Slavic consistently has neuter forms for all such derivatives (cf. Polish *przed-szkol-e* nt. 'pre-school' ← *przed* 'before' + *szkoła* f. 'school'), Baltic languages favour opposite gender assignment of the base noun gender (e.g. Latvian *pat-skan-is* m. 'vowel' ← *pats* '(one)self' + *skaņa* f. 'sound', Lithuanian *kryž-kel-ė* f. 'crossroad' ← *kryžius* 'cross' + *kelias* m. 'way') quite in a regular manner.

Selected references

S. Ambrazas, 'The formation of the Baltic adjectives', in D. Petit, C. Le Feuvre, H. Menantaud, *Langues baltiques, langues slaves*, Paris, 2011.

A. Holvoet, L. Vaičiulytė-Semėnienė, 'Giminės kategorija' [The Category of Gender], in *Daiktavardinio junginio tyrimai* [Researches on the Nominal Syntagm], Vilnius, 2006.

S. Keinys, *Bendrinės lietuvių kalbos žodžių daryba* [Standard Lithuanian Word-Formation], Šiauliai, 1999.

J. Larsson, 'Nominal compounds in Baltic languages', *Transactions of the Philological Society* 100/2, 2002.

J. Otrębski, *Gramatyka języka litewskiego (III: nauka o formach)* [Grammar of the Lithuanian Language (III: Morphology)], Warsaw, 1956.

P. Skardžius, *Lietuvių kalbos žodžių daryba* [Lithuanian Word-Formation], Vilnius, 1943.

P. Štekauer, S. Valera, L. Körtvélyessy, *Word-Formation in the World's Languages. A Typological Survey*, Cambridge, 2012.

The formal redistribution of binominal naming constructions in Early New High German

Kristin Kopf

(Mainz University)

Old and Middle High German compounds overwhelmingly involved two simple constituents. Compounds with three nouns were unusual and derivationally complex first elements were extremely rare (Carr 1939, Wilmanns 1896). In sharp contrast, present-day German is known for its nearly unrestricted ability to form new compounds (e.g. Schlücker 2012). Compounding is the default mechanism for neologisms and loanword integration (Harlass/Vater 1974, Munske 2009).

In this paper, I'll present corpus data from 1500 to 1710 to show that the rise of compounding in German cannot be discussed independent of change in a number of relevant syntactic structures. As can be seen from the excerpts of 15/16th century Bible translations in (1), the Latin or Greek genitive phrase *in vestitu ovium*/ἐν ἐνδύμασι προβάτων ‚in sheep's clothing' was expressed as either a noun phrase with a relational adjective (1a), a postnominal genitive construction (1b), a prenominal genitive construction (1c) or a compound (1d), yielding four formally different ways to express one binominal naming construction.

(1) a.   in scheff-in   gewande   (Mentelin, 1466)
                in sheep-adj   robe
       b.   in den klederen   der   scape   (Lübeck, 1494)
                in the   clothing   the.gen sheep.gen
       c.   ynn   schaff-s   kleydern   (Luther, 1522)
                in   sheep-gen/le   clothing
       d.   in Schaf-s-kleidern   (Luther, 1545)
                in sheep-le-clothing

Cases like (1c) pose a much-discussed problem (Pavlov 1983, Nitta 1987, Demske 2001, Solling 2012, Kopf 2016): As spelling varies greatly, a clear distinction between compound and phrase is not always possible. I will show that even seemingly obvious indicators (i.e. agreement between determiner and second noun) cannot be relied upon, and propose a comprehensive way to handle such ambiguities.

The discussion of binominal naming constructions in Early New High German has mostly been restricted to reanalysis of prenominal genitive constructions, which gave rise to compounds with linking elements that reflect earlier genitive suffixes (le; 1c > 1d; e.g. Pavlov 1983). I will show that this process set in motion the loss of morphological restrictions in N+N compounds. However, I included not only possible direct precursors to reanalysis (as in 1c) in my data, but also functionally equivalent postnominal genitive constructions (as in 1b), thus most of the expressions that could be used for a binominal naming construction. This allows us to gain insight into a complex process of formal redistribution: Postnominal genitive constructions (which cannot be a source of reanalysis), decline, as do their functional equivalents in prenominal position, while compounds are rising. The data therefore suggests a more general change in expression, shifting the form of binominal naming constructions from phrases towards compounds.

References

Carr, Charles T. (1939): Nominal compounds in Germanic. London.

Demske, Ulrike (2001): Merkmale und Relationen. Diachrone Studien zur Nominalphrase des Deutschen. Berlin, New York.

Harlass, Gertrude & Heinz Vater (1974): Zum aktuellen deutschen Wortschatz. Tübingen.

Kopf, Kristin (2016): Von der Syntax in die Wortbildung. Zur Diachronie der verfugenden N+N-Komposition. Dissertation, Johannes Gutenberg-Universität Mainz.

Munske, Horst H. (2009): Was sind eigentlich 'hybride' Wortbildungen? In: Peter O. Müller (ed.): Studien zur Fremdwortbildung. Hildesheim, 223–260.

Nitta, Haruo (1987): Zur Forschung der 'uneigentlichen' Zusammensetzung im Frühneuhochdeutschen. In: Zeitschrift für deutsche Philologie 106 (3), 400–416.

Pavlov, Vladimir M. (1983): Von der Wortgruppe zur substantivischen Zusammensetzung. Berlin.

Schlücker, Barbara (2012): Die deutsche Kompositionsfreudigkeit. Übersicht und Einführung. In: Livio Gaeta & Barbara Schlücker (eds.): Das Deutsche als kompositionsfreudige Sprache. Strukturelle Eigenschaften und systembezogene Aspekte. Berlin, New York, 1–17.

Solling, Daniel (2012): Zur Getrennt-, Zusammen- und Bindestrichschreibung von Substantivkomposita im Deutschen (1550-1710). Uppsala.

Wilmanns, Wilhelm (1896): Deutsche Grammatik. Gotisch, Alt-, Mittel- und Neuhochdeutsch. Part 2: Wortbildung. Straßburg.

Compounds in Karachay-Balkar

Aslı Gürer

(Necmettin Erbakan University)

Karachay-Balkar (KB), a Turkic dialect spoken mainly in the south parts of Karachay-Cherkessia and Kabard-Balkar Republics of Russia and cited as an endangered language by Unesco, have Noun-Noun compounds that surface with/out the marker –*sI*.

In KB, -*sI* is optional with compounds the Turkish counterparts of which obligatorily bear –*sI* (Seegmiller 1996, pg. 15, Tavkul 2007, pg. 924).

(1) a. at   arba-(sı)   b. tiş   dohtur-(u)
      horse   car-(sI)   tooth   doctor
      'carriage'   'dentist'

However the appearance of -*sI* with Noun-Noun compounds is not fully optional.

(2) a. caş   can-*(ı)   b. tav   baş-*(ı)
      boy   side-sI   mountain   top-sI
      'boy's side'   'mountain top'

This study aims to (i) find out the groups of compounds that obligatorily or optionally surface with -*sI*, (ii) reveal semantic and syntactic properties of the two groups and (iii) explain the derivational domains for the compounds and the results will shed light on the function of –*sI* in Turkic languages. In Turkish, compounds without –*sI* or phrases differ from compounds with –*sI* in that nouns in compounds with –*sI* mark subordinating relation but not attributive relation (Göksel and Haznedar 2008).

In Karachay-Balkar, even in the absence of *–sI,* subordinating relation is preserved. Hence we suggest that the function of *–sI* cannot be taken as marking subordinating relation. The findings reveal that *–sI* signals the presence of an argument being the head of functional head nP. If the head noun is inherently transitive encoding kinship terms (3a), dependent part whole (3b) or if it is derived from a verb (3c), the argument status of the non-head is signaled via *–sI*. This is similar to the analysis of Öztürk and Taylan (2016) for Turkish; however Karachay-Balkar is even more restrictive in that *–sI* surfaces only with inherently transitive heads obviating the need for type-shifting operators.

(3) a. kız   ata-sı   b. orunduk   kıyır-ı   c. çaç   eşimdi-si
     girl   father-sI   bed   side-sI   hair   braid-sI
     'father of a girl'   'side of a bed'   'hair braid'

–sI follows plural marker and case markers, and the derivational marker *-cI.*

(4) a. tepsi   üs-ler-in-de   surat   bar-dı.
       table   top-PL-sI-LOC   picture   exist-3SG
       'There is a picture on top of the tables'
   b. oram   satuv-cu-su   kel-di.
       street   seller-cI-sI   come-PAST
       'The street vendor came.'

The compounds in KB allow modification of the non-head which indicates that the head and the non-head do not form an opaque domain and the non-head is accessible for syntactic operations.

(5) Ata-m   ((eski   kamyon) şaför-ü-dü).
    father-1SGPOSS   old   truck   driver-sI-3SG
    'My father is an old-truck driver.'

However the compounds differ from phrasal units in that they do not allow insertion of a constituent between the head and the non-head (6a-b) which is possible in phrasal units (6c).

(6) a. *kitap cırtık bet-(i)   b.*oram   bir   kiştig-(i)   c. tögerek bir   tepsi
       book   torn   page-sI   street   a   cat-sI   round   a   table
       Intended: 'a torn book page'   Intended: 'a street cat'   'a round table'

Compounds in KB show word level properties in that it is not possible to insert a constituent between the head and the non-head, but also phrase level properties in that it is possible to modify the non-head excluding the head. However compounds differ from noun phrases in that nouns form a subordinating relation. We propose that morphology is the derivational domain of compounds. However in line with Ackema and Neeleman (2004), we suggest that syntax and morphology are parallel domains in that morphological objects can be inserted in syntactic terminals and syntactic objects can be inserted in morphological terminals. Hence compounds show mixed properties of word level and phrase level constituents.

References

Ackema, P. and Neeleman, A. (2004). *Beyond Morphology: Interface conditions on word formation*.
    Oxford: Oxford University Press.

Göksel, A. & Haznedar, B. (2008). The structure of Turkish compounds: A database study. In Y. Aksan & M. Aksan (Eds.), *Proceedings of the 21st Conference on Linguistics*. Mersin: Mersin University Publications. (pp. 362-364)

Öztürk, B. and Taylan, E. E. 2016. Possessive constructions in Turkish. *Lingua* 182, 88-108.

Seegmiller, S. 1996. *Karachay*. Lincolm.

Tavkul, U. 2007. Karaçay-Malkar Türkçesi. In Ahmet B. Ercilasun (Ed.) Türk lehçeleri grameri. Ankara: Akçağ Yayınları.

Binominal compounds in Enindhilyakwa (AOI, Gunwinyguan, Australia)

Marie-Elaine van Egmond

(University of Greifswald)

This paper introduces two new types of binominal compound (BNC) from Enindhilyakwa, an Aboriginal language spoken in Northern Australia. Like many other Northern Australian languages, Enindhilyakwa is polysynthetic, thus making extensive use of morphology to identify grammatical relations, with agreement throughout the clause. As a result, simply putting two nominals together to build a compound noun - as in the English noun-noun compound *railway*, the French prepositional compound *chemin de fer* [way of iron] 'railway', or the Russian relational compound *železnaja doroga* [iron.adjz road] 'railway' - is not an available strategy in this language.[33] This is because modifiers need to agree with their heads. Enindhilyakwa employs a set of derivational prefixes to achieve agreement: inalienable possession (inalp) and alienable possession (alp), which enable modifiers to agree with the noun class of their head. The two constructions each name a subset of complex concepts, as illustrated in (1, inalp) and (2, alp) (van Egmond 2012), and constitute two additional binominal construction types to the ones identified by the workshop convenors:[34]

(1) a.   *ma-ma+kulya*   *menba*
         veg-inalp+skin veg.eye
         'eyelid'

   b.   *yi-nv-ma+kulya*   *kalkwa*
         masc-m-inalp+skin   coconut(masc)[35]
         'coconut husk'

   c.   *yi-nv-m-eminda*   *yikarba*
         masc-m-inalp-neut.nose   masc.woomera
         'woomera hook'

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[33] This appears to be the case for other languages belonging to the Gunwinyguan family as well: e.g. Bininj Gun Wok (Evans 2003), Wubuy (Heath 1984), Ngalakgan (Baker 2008).

[34] The letter *v* represents the phoneme /ə/; NEUT = neuter noun class; VEG = vegetable noun class; MASC = masculine noun class; F = feminine gender; M = masculine gender; NMLZ = nominalizer. A synchronic morpheme boundary is indicated with a dash (-); a frozen morpheme boundary with a full stop (.), which is not indicated on the lexeme; and bound forms with a plus sign (+).

[35] *Kalkwa* is not overtly marked for noun class because it is a Macassan loanword, and loanwords do not take noun class prefixes.

(2) a.   *envngv-menba*
      neut.m.alp-veg.eye
      'glasses, spectacles' (Lit.: 'neut class item associated with the eye')
   b.   *envng-arrvrra*
      neut.m.alp-neut.wind
      'bicycle pump' (Lit.: 'neut class item associated with wind')

Non-human nominals derived with the inalp prefix refer to components of body parts (1a) or parts of inanimate objects (1b,c), where the noun class of the part agrees with that of the whole. The alp construction (2) has a sense of 'belonging to' or 'associated with', and the derived noun agrees in noun class with the hypernym (introduced objects are usually neut noun class).

    Examples (1a) and (2a,b) are complex concepts from Pepper's (2016) cross-linguistic sample of BNCs in the world's languages. Completing Pepper's list for Enindhilyakwa results in a comparatively low frequency of BNCs: 14% (against an average of 21%). Pepper's data base so far includes only one other Australian language: Gurindji (North Australia, genetically unrelated to Enindhilyakwa), which has an even lower BNC frequency (7%). However, these low numbers are most likely due to the fact that many of the complex concepts in the sample do not exist in (former) hunter-gatherer societies, such as *doorpost*, *flea market*, *breakfast*, *carpenter*, and so on. Only 47% of Pepper's complex concepts are realized in Enindhilyakwa. Furthermore, many of the complex forms from his list are not binominals, but for example nouns derived from verbs (4a) or adverbs (4b):

(4) a.   *a-k-warikaja*
      neut-nmlz-tangle_up
      'vine' (Lit: 'neut class item that is tangled up')
   b.   *me-merrku-wilyarra*
      veg-sun-in_the_middle
      'midday'

    The Enindhilyakwa data thus show us two things: firstly, the frequency of BNCs in a language depends to some extent on the semantic field of the items included in the data base. And secondly, typologically lesser-known languages may reveal new strategies to express complex concepts.

References

Baker, Brett. 2008. *Word structure in Ngalakgan*. CSLI Publications

Evans, Nicholas. 2003. *Bininj Gun-Wok: a pan-dialectal grammar of Mayali, Kunwinjku and   Kune*. Vol. 1 and 2. Canberra: Pacific Linguistics

Heath, Jeffrey. 1984. *Functional Grammar of Nunggubuyu*. Canberra: AIAS

Pepper, Steve. 2016. *Noun-noun compounds and their functional equivalents: The case of Gurindji*. SOAS, London. http://folk.uio.no/stevepe/euroz2016.pdf

Van Egmond, Marie-Elaine. 2012. *Enindhilyakwa phonology, morphosyntax and genetic position.* Unpublished PhD thesis, University of Sydney

How to distinguish between nouns and classifiers in Binominal Naming Constructions? Answers from two Western Amazonian languages

An Van linden & Françoise Rose

(University of Liège and University of Leuven & CNRS/Université de Lyon)

Western Amazonian languages stand out in showing classifiers that – in addition to the well-established classifier environments – also appear as derivational devices on nouns (Payne 1987; Aikhenvald 2000; Seifart & Payne 2007). Since classifiers are commonly assumed to originate in nouns (Aikhenvald 2000), classifier languages confront us with an analytical problem in the domain of Binominal Naming Constructions (BNCs), i.e. how to distinguish between the derivational use of classifiers on nouns (1)-(2) and noun-noun compounds (3)-(4). The present paper addresses this problem on the basis of primary data collected on Harakmbut (isolate, Peru), e.g. (1) and (3), and Mojeño Trinitario (Arawak, Bolivia), e.g. (2) and (4), two unrelated (and not in contact) Western Amazonian languages. While Mojeño Trinitario will be shown to be a multiple classifier language with an extensive set of classifiers, Harakmbut turns out to show (a small set of) classifiers only, in fewer environments. Yet, both languages will appear to behave strikingly similarly in the domain of BNCs.

(1) classifier-derived nouns in Harakmbut
a) *siro-pi* metal-CLF:stick 'knife' (cf. Hart 1963: 1)
b) *siro-pu'* metal-CLF:cylindrical;hollow 'metal tube' (cf. Hart 1963: 1)
(2) classifier-derived nouns in Mojeño Trinitario
a) *yuk(u)-pi* fire-CLF:long;flexible 'candle'
b) *wray(u)-'a* chicken-CLF:oval 'chicken egg'
(3) noun-noun compounds in Harakmbut
a) *ndumba-kuwa* forest-dog 'bush dog' (Helberg 1984: 252; Tripp 1995: 194)
b) *äwït-ku* giant.otter-head 'giant otter's head; person with giant otter's head'
(4) noun-noun compounds in Mojeño Trinitario
a) *mari-chóchoku* stone-river.bank 'stony riverbank'
b) *paku-miro* dog-face 'dog's face; person with dog's face'

   In this paper, we will discuss how noun-classifier derivation compares to noun-noun compounding at the phonological, prosodic, semantic and syntactic levels in both Harakmbut and Mojeño Trinitario. For example, noun-noun compounds consist of clear "Thing-roots" (Haspelmath 2012) in both languages, with one element being the morphosyntactic and semantic head. In noun-CLF formations, however, classifiers do not really denote a "thing", but rather a shape or quality; they do not contain a head.

   As a factor bearing on this analytical problem, we will show that in both languages the noun/classifier distinction is blurred by the fact that there is a class of nouns that share many features with the canonical classifiers. In both languages, these nouns refer to parts of entities, such as bodyparts, cf. (3b) and (4b), or plant parts. Morphologically, these are bound roots, which require affixation to obtain independent nominal status, specifically possessor prefixes in Mojeño Trinitario and (semantically empty) nominalizing prefixes in Harakmbut. Interestingly, in both languages such N-N compounds as (3b) and (4b) can be used as endocentric compounds in their literal sense, but they can also be used exocentrically to refer to a person whose (physical) characteristics resemble those of the referent of the endocentric compound. In Mojeño Trinitario, such exocentric uses take determiners for human referents, whereas neither component noun refers to a human entity (Harakmbut lacks any formal indication for such uses). More generally, we will examine to what extent these bound nouns

can be analysed as incipient classifiers, and formulate diachronic hypotheses informed by our analysis of BNCs.

References

Aikhenvald, A.Y. 2000. *Classifiers. A Typology of Noun Categorization Devices*. Oxford: Oxford University Press.

Hart, R. 1963. Semantic components of shape in Amarakaeri Grammar. *Anthropological Linguistics* 5 (9): 1-7.

Haspelmath, Martin. 2012. How to compare major word-classes across the world's languages. *UCLA Working Papers in Linguistics, Theories of Everything 17*, Article 16. 109–130.

Helberg, H. 1984. *Skizze einer Grammatik des Amarakaeri*. PhD dissertation, Tübingen.

Payne, Doris L.1987. Noun Classification in the Western Amazon. *Language Sciences* 9 (1): 21-44.

Seifart, Frank & Doris Payne. 2007. Nominal classification in the North West Amazon: Issues in areal diffusion and typological characterization. *International Journal of American Linguistics* 73 (4): 381–387.

Tripp, R. 1995. *Diccionario amarakaeri-castellano*. Yarinacocha: Min. de Educación & SIL.

Six ways for nouns to meet nouns in Äiwoo

Åshild Næss

(University of Oslo)

The Oceanic language Äiwoo shows (at least) six possible strategies for combining two nominal roots into a complex referring expression:

1) indirect possessive marking using one of six possessive classifiers; most commonly used for possession proper, but includes what Koptjevskaja-Tamm (2004) calls non-anchoring relations such as purpose: *nabe na nubââ* (bait POSS:FOOD.3MIN shark) 'shark bait'.

2) direct possessive marking indicated by suffix marking directly on the noun (hence the term 'direct'); found mainly with kinship and body-part terms, but the precise borders with strategy 3 are blurry, cf. below.

3) a set of person-inflected prepositions *eä, nä, ngä*, *lä* covering a variety of relations including purpose, origin, part-whole and others (e.g. *nupo eä nubââ* 'shark net, net for sharks', *nyibe lä käi* 'packets of pudding', *sime lä nuumä* 'person from the village'). Wurm (1981) claims a semantic distinction between the different forms of the preposition, but no clear distinctions are apparent in my data; compare e.g. *sime lä nuumä* 'person from the village', *siguwâu eä nuumä* 'young man from the village'

4) full-form bound nouns, which have the phonological shape of an independent noun, but only occur in construction with another noun. This strategy is found mainly with terms for body parts and plant parts, e.g. *nyiluu nuwotaa* 'my hair' (hair my.head), *nula nyenaa* 'branch' (branch tree).

5) reduced-form bound nouns, which take a distinct form when combining with another noun (Næss 2006), typically losing the reflex of the Proto Oceanic article *na which has accreted to many Äiwoo nouns: *nupo* 'net', *nebi* 'bamboo', *po-nebi* 'type of fishing net attached to bamboo sticks', *nyibä* 'basket', *be-nupo* 'string basket'.

6) juxtaposition, e.g. *tou nyiivä* 'stone anchor', *naa nuwale* 'end [of] rope'

Several of the strategies show formal overlaps. For example, some nouns appear directly possessed (strategy 2) in that they only occur with a suffixed marker of possession, but this marker seems to be identical to the preposition *wä/nä/lä* (strategy 3), suggesting perhaps an ongoing process of grammaticalisation for certain nouns. Strategy 4) differs from 6) only in that the nouns found in the former never occur without a nominal modifier; while both of these differ from 5) only in the form of the modified noun as compared to that of a corresponding unmodified noun, where one exists. 5) moreover overlaps to some extent with a set of bound nouns more typically modified by verbs or clauses and showing formal similarities with nominalising prefixes (Næss 2006); that is, drawing the line between noun-noun constructions and constructions with more derivation-like properties is challenging.

Many nouns occur with more than one strategy, meaning that the choice of strategy is only to a limited extent determined by the noun itself, depending instead on the precise relation expressed. In this talk, I will map the semantic relations expressed through the different strategies, and the formal and functional relations between the strategies, to determine how Äiwoo distributes different types of semantic relations between nouns across formal strategies.

References

Koptjevskaja-Tamm, Maria. 2004. Maria's ring of gold: Adnominal possession and non-anchoring relations in European languages. In Kim, Lander and Partee (eds.), *Possessives and beyond: semantics and syntax. University of Massachusetts Occasional Papers in Linguistics 29*, 155-181. Amherst: University of Massachusetts.

Næss, Åshild. 2006. Bound nominal elements in Äiwoo (Reefs): a reappraisal of the 'multiple noun class systems'. *Oceanic Linguistics* 45:2, 269-296.

Wurm, Stephen A. 1981. The possessive class systems in Äiwo, Reef Islands, Solomon Islands. In *Papers in New Guinea Linguistics 21* (Pacific Linguistics A-61), 181-209. Canberra: Pacific Linguistics.

Noun + noun sequences in Lithuanian: Medical and legal discourses

Vilma Zubaitienė & Gintarė Judžentytė
(Vilnius University)

The term 'collocation' was first used by Firth in the 1950s, but only few linguists have researched this phenomenon in scientific Lithuanian. Previous researches were mostly focused on collocations in general Lithuanian and translations (Marcinkevičienė 2010, Volungevičienė 2010). Usually, collocations are studied as lexical units in translation and academic discourse (cf. e.g. Kjær 2007, Miščin 2013, Salazar 2014).

The report deals with NN collocations in medical and legal Lithuanian discourses, specifically lexical collocations (Benson, Benson & Ilson 1986). Lexical collocations are usage-determined or preferred syntagmatic relations between two lexemes in a specific syntactic pattern (Granger & Paquot 2008, 43). *CorALit: the Corpus of Academic Lithuanian* (http://coralit.lt/en/node/18) was used as a corpus. In addition, bilingual dictionaries (English-Lithuanian and German-Lithuanian) were used as additional material to find the most frequent collocations.

The aim of this research is to investigate the most frequent noun collocations, which occur in Lithuanian medical and legal discourses, and to find out what noun is the base of the collocation and which of them is the second element selected by the base (i.e., the collocate).

Next, we classify collocations according to their structure and semantics. The researched legal and medical discourses reveal different types of constructions. The most common are Mod.GEN Head constructions, e.g., *plaučių vėžys* lung-Gen.PL cancer-Nom.SG 'lung cancer', *teismo byla* court-Gen.PL case-Nom.SG 'case'. However, some contexts show N PREP N type, e.g., *derybos dėl susitarimo* negotiation-Nom.PL due to agreement-Gen.PL ('negotiation of an agreement'), *kova su nedarbu* fight-Nom.SG with unemployment-Instr.SG ('fight against unemployment'). In addition, these discourses stand out with N + N sequences of 3 or 4 members, e.g., *Teisingumo Teismo nuomonė* Justice-Gen.SG Court-Gen.SG opinion-Nom.SG ('opinion of the Court of Justice'), *medicinos ekspertizės aktas* medicine-Gen.SG expertise-Gen.SG report-Nom.SG ('medical report'), *teismo nutarimo vykdymo būdas* court-Gen.SG decision-Gen.SG enforcement-Gen.SG mode-Nom.SG ('mode of enforcement'). There are many classifications of semantic relations between nouns (cf. e.g. Rosario et al. 2002; Girju et al. 2005; Turney 2006). It was found that, out of the total 35 relations considered, there were 21 in the case of of-genitive (Moldovan et al. 2004). The most frequently occurring relations are part-whole (*širdies kraujagyslė* heart-Gen.SG vessel-Nom.SG 'cardiovascular', *Teismo narys* Court-Gen.SG member-Nom.SG 'member of the Court'), attribute-holder (*širdies nepakankamumas* heart-Gen.SG failure-Nom.SG 'heart failure', *teismo neveiksnumas* Court-Gen.SG incapacity-Nom.SG 'legal incapacity of the Court'), possession (*paciento širdis* Patient-Gen.SG heart-Nom.SG 'the patient's heart', *teismo turtas* Court-Gen.SG Estate-Nom.SG 'Court Estate'), location (*širdies ertmė* heart-Gen.SG cavity-Nom.SG 'chambers', *teismo salė* Court-Gen.SG room-Nom.SG 'courtroom'), source (*širdies ritmas* heart-Gen.SG beat-Nom.SG 'heartbeat', *teismo sprendimas* Court-Gen.SG judgment-Nom.SG 'judgment of the Court'), and topic (*širdies gydymo metodas* heart-Gen.SG treatment-Gen.SG method-Nom.SG 'heart treatment method', *teismo ekspertizė* Court-Gen.SG expertise-Nom.SG 'forensics').

Therefore, this paper deals with semantic relations between nouns in special legal and medical texts, and with specific legal and medical equivalents (compounds, types of noun phrases) in Baltic (Lithuanian) and Germanic (English, German) languages, e.g., *teismo institucijos* (*courts and tribunals*), *teismo procesas* (*Gerichtsverfahren*). We also establish the list of the most frequent basic nouns in medical and legal discourses on the basis of corpus and vocabulary analysis. We establish why certain nouns occur with a certain noun in a collocation and what semantic fields can be distinguished.

References

Benson, M., Benson, E., & Ilson, R. 1986. *The BBI combinatory dictionary of English: A guide to word combinations*. Amsterdam: John Benjamins.

Girju, R., Moldovan, D., Tatu, M., & Antohe, D. 2005 On the semantics of noun compounds. In *Computer Speech and Language (Special Issue on Multiword Expressions)* 19, 479-496.

Granger S. & Paquot, M. 2008. Disentangling the Phraseological Web. In S. Granger & F. Meunier (eds.), *Phraseology: An Interdisciplinary Perspective*. Amsterdam-Philadelphia: John Benjamins. 27-49.

Kjær, A.-L. 2007. Phrasemes in legal texts. In H. Burger (ed.), *Phraseology. An International Handbook of Contemporary Research*. Vol. i-ii, Berlin: de Gruyter. 506-516.

Marcinkevičienė, R. 2010. *Lietuvių kalbos kolokacijos*. Kaunas: VDU leidykla.

Moldovan, D., Badulescu, A., Tatu, M., Antone, D., & Girju, R. 2004. Models for the semantic classification of noun phrases. In *Proceedings of the HLT-NAACL Workshop on Computational Lexical Semantics*, 60-67.

Miščin, B. E. 2013. Verb Collocations in Medical English, *US-China Foreign Language* 11(8), 609-618.

Rosario, B., Hearst, M. A., & Fillmore, C. 2002. The descent of hierarchy, and selection in relational semantics. In *Proceedings of the 40th Annual Meeting on Association for Computational Linguistics* (ACL'02). 247-254.

Salazar, D. 2014. *Lexical Bundles in Native and Non-native Scientific Writing: Applying a corpusbased study to language teaching*. John Benjamins Publishing Company.

Turney, P. D. 2006. Similarity of semantic relations. *Computational Linguistics* 32, 3, 379-416.

Volungevičienė, S. 2010. Metaforinių kolokacijų vertimo problemos. *Kalbų studijos* nr. 16, 23-27.

Complex nominals denoting instruments: A contrastive perspective (ITA, RUS, CMN, JAP)

Chiara Naccarato & Shanshan Huang

(University of Pavia and University of Bergamo & University of Pavia)

The aim of the present paper is to investigate complex nominals denoting instruments in a contrastive perspective, i.e. to compare the strategies employed to form instrument nouns in genetically and typologically different languages, i.e. Italian, Russian, Mandarin Chinese (henceforth Chinese) and Japanese.

In this study, we adopt an onomasiological approach to word-formation (cf. Štekauer 1998, 2005a, 2005b; Grzega 2009), by comparing "patterns apt to express one and the same function" (Rainer 2013: 27). In particular, we adopt the model by Štekauer (1998, 2005a, 2005b), in which naming units are classified according to their onomasiological structure, which normally includes three constituents, i.e. the determining constituent, the determined (actional) constituent and the onomasiological base. These constituents might be all linguistically expressed, such as in *truck driver* (*truck* = determining constituent, *drive* = determined constituent, *-er* = onomasiological base), or not, thus giving rise to different onomasiological types.

The analysis is based on four manually built corpora (one for each language) containing comparable texts related to the semantic domain of cooking (i.e. recipes from online journals and recipe websites). From each corpus, we extracted complex nominals denoting instruments, such as those in examples (1) to (3). By the term "instrument", we refer to any type of kitchenware that can be used to prepare, cook, serve, or store food.

> (1) 'cutting board'
>> a. ita *tagl-ier-e* [cut-nmlz-m.sg]
>> b. rus *kuchon-n-aja doska* [kitchen-adjz-f.sg board]
>> c. cmn *cài-bǎn* [vegetable-board]
>> d. jap *mana-ita* [fish-board]
>
> (2) 'meat grinder'
>> a. ita *trita-carne* [grind-meat]
>> b. rus *mjas-o-rub-k-a* [meat-lv-grind-nmlz-f.sg]
>> c. cmn *jiǎo-ròu-jī* [grind-meat-machine]
>> d. jap *niku-hiki-ki* [meat-grind-machine]
>
> (3) 'sugar bowl'
>> a. ita *zuccher-ier-a* [sugar-nmlz-f.sg]

b. rus *sachar-nic-a* [sugar-nmlz-f.sg]
c. cmn *táng-guàn* [sugar-vase]
d. jap *satoo-ire* [sugar-holder]

The complex nominals extracted were classified according to two criteria: the type of word-formation process employed, e.g. derivation (1a, 3a, 3b), compounding (1c, 1d, 2, 3c, 3d) or phrasal compounding (1b); and the onomasiological type, e.g. Onomasiological Type 1, when the base, the determining constituent and the determined constituent are all expressed (2); Onomasiological Type 2, when the determining constituent is not expressed (1a); Onomasiological Type 3, when the determined (actional) constituent is not expressed (1b, 1c, 1d, 3).

The occurrence of a certain onomasiological type seems to be correlated with the type of instrument noun that is formed. When complex nominals denote containers or, more generally, instruments that are not used to carry out a dynamic event, Onomasiological Type 3 is preferred, while Onomasiological Types 1 and 2 are employed more frequently to denote instruments that are used to perform some dynamic actions, such as cutting or grinding.

As regards the type of word-formation process, we found that compounding is the most common strategy in Chinese and Japanese, as we expected. On the contrary, Italian and Russian show a higher number of derived words and phrasal compounds, which are not common in Chinese and Japanese.

The analysis also provides insight into language-specific tendencies in word-formation in regards to the lexical field of instrument nouns, e.g. the abundance of synonymous nominals in Japanese resulting from word-formation processes based on different lexical strata (loanwords vs. native words).

References

Grzega, Joachim. 2009. Compounding from an onomasiological perspective. In: Rochelle Lieber and Pavol Štekauer (eds.), *The Oxford handbook of compounding*. Oxford: Oxford University Press. 217–232.

Rainer, Franz. 2013. Can relational adjectives really express any relation? An onomasiological perspective. *SKASE Journal of Theoretical Linguistics* 10 (1), 12–40.

Štekauer, Pavol. 1998. *An onomasiological theory of English word-formation*. Amsterdam/Philadelphia: John Benjamins Publishing Company.

Štekauer, Pavol. 2005a. Onomasiological approach to word-formation. In: Pavol Štekauer and Rochelle Lieber (eds.), *Handbook of Word-Formation*. Dordrecht: Springer. 207–232.

Štekauer, Pavol. 2005b. *Meaning Predictability in Word Formation. Novel, context-free naming units*. Amsterdam/Philadelphia: John Benjamins Publishing Company.

Semantic relations in binominal lexemes: A cross-linguistic survey

Steve Pepper

(University of Oslo)

This presentation discusses the kinds of semantic relations that occur in binominal lexemes. For the purpose of this paper a binominal lexeme (or 'binominal' for short) is defined as a complex nominal consisting primarily of two nominal constituents. This corresponds to Štekauer's (1998) Onomasiological Type 3, in which the base and the determining element (but not the determined

element) are present. More informally, a binominal is a (determinative) noun-noun compound *or its functional equivalent*.

The term binominal lexeme covers a range of construction types, including – but not limited to – [N N], [N prep N], [N.adjz N], [N N.3sg] and [N.con N], exemplified by Ger. *Eisenbahn*, Fr. *chemin de fer*, Rus. *železnaja doroga*, Tur. *demir yolu* and Heb. *mesilat barzel*, respectively, all of which combine the concepts 'iron' and 'road' to denote the concept 'railway', but without stating the nature of the relation between the nominal constituents.

The nature of this unstated relation as far as noun-noun compounds are concerned has been the subject of much research, especially for English (e.g. Levi 1978; Warren 1978; Ryder 1994; Jackendoff 2010), but also for other languages, including Nizaa (Pepper 2010), French (Bourque 2014) and Norwegian (Eiesland 2016) (see also the individual chapters in Hacken 2016). Using Levi's classification scheme, Bauer & Tarasova (2013) show that the same kinds of semantic relation that are found in English noun-noun compounds also occur in other binominal constructions, such as those involving relational adjectives (e.g. *manual labour*), prenominal possessives (*dog's breakfast*), postnominal possessives (*man-of-war*), neoclassical compounds (*hydromancy*) and blends (*paratroops*).

Rainer (2013) poses the question whether relational adjectives can express "any relation" and answers it in the affirmative after an investigation that takes in genitives in Latin and Slavic, compounds in German, prepositional compounds in Romance languages, the attributivizer construction in Hungarian, and the competition between the *nisba* suffix and the *faʿil* pattern used for deriving state adjectives in Arabic. Furthermore, Pepper (2016) shows that in at least one language where there is competition between binominal constructions (in this case, head-initial and head-final compounds), the choice of construction depends on the kind of semantic relation involved.

This paper addresses the question of semantic relations in binominals through a broad cross-linguistic study. The study takes as its starting point a set of 100 complex meanings and investigates the forms used to express them in 100 languages from around the world. Every morphologically complex form is analyzed and all binominals identified. For each binominal, the semantic relation obtaining between its constituents is determined according to the scheme developed by (Bourque 2014), along with the (formal) type of construction.

The following research question are addressed:

1. To what extent do the same kinds of semantic relation occur cross-linguistically?
2. Where there is competition between binominal constructions, does the semantic relation have any bearing on which construction is chosen?

Preliminary results suggest that certain kinds of semantic relation are universal and that there is often a correlation between the relation and the construction used to express it.

References

Bauer, Laurie & Elizaveta Tarasova. 2013. The meaning link in nominal compounds. *SKASE Journal of Theoretical Linguistics* 10(3). 2–18.

Bourque, Yves Stephen. 2014. Toward a typology of semantic transparency: The case of French compounds. University of Toronto PhD dissertation.

Eiesland, Eli-Anne. 2016. The semantics of Norwegian noun-noun compounds: A corpus-based study. University of Oslo PhD dissertation.

Hacken, Pius ten (ed.). 2016. *The semantics of compounding*. Cambridge: Cambridge University Press.

Jackendoff, Ray. 2010. The ecology of English noun-noun compounds. *Meaning and the lexicon: The parallel architecture 1975-2010*, 413–451. Oxford: Oxford University Press.

Levi, Judith N. 1978. *The syntax and semantics of complex nominals*. New York: Academic Press.

Pepper, Steve. 2010. Nominal compounding in Nizaa: A cognitive perspective. School of Oriental and African Studies (University of London) Master's thesis.

Pepper, Steve. 2016. Windmills, Nizaa and the typology of binominal compounds. In Lívia Körtvélyessy, Pavol Štekauer & Salvador Valera (eds.), *Word-formation across languages*. Newcastle: Cambridge Scholars Publishing.

Rainer, Franz. 2013. Can relational adjectives really express any relation? An onomasiological perspective. *SKASE Journal of Theoretical Linguistics* 10(1).

Ryder, Mary Ellen. 1994. *Ordered chaos: The interpretation of English noun-noun compounds*. Berkeley: University of California Press.

Štekauer, Pavol. 1998. *An onomasiological theory of English word-formation*. Amsterdam: John Benjamins.

Warren, Beatrice. 1978. Semantic patterns of noun-noun compounds. *Acta Universitatis Gothoburgensis* 41. 1–266.

Combined concepts in language development: Evidence from Swedish

Maria Rosenberg

(Umeå University)

OBJECTIVE: This study takes a developmental approach to how compounding for expressing combined concepts contrasts with syntactic means (e.g. PPs, APs, Subordinates). Swedish has several patterns for expressing complex nominals that either compete or stand in free variation, and some being more restricted than others (cf. Rainer 2013). Given the assumption that instantiations of available patterns occur in the child's input to different extents, two research questions are posed:

- What complex nominals does the child use to express combined concepts?
- To what extent does the child's use of (novel) compounds for combined concepts contrasts to other available means?

BACKGROUND: Nouns are often claimed to have an advantage in early acquisition (Waxman et al. 2013), and NN compounding emerges early: around age two children decompose NN compounds into head and modifier (Dressler et al. 2010). Children's creativity with language (Gelman & Gottfried 2016) is evidenced by their use of novel word-formation for conceptual combinations. Theoretically, the study agrees with Lynott and Connell (2010) that a conceptual combination is a situated simulation (cf. Barsalou 2003), reconciling linguistic distributional information and embodied information (perception being central), and depends on a wider context for its understanding. Concepts are thus semantically flexible, and their simulations can be more or less deeply grounded (cf. Mahon 2015), with the retrieval of an established compound being less grounded than the constructing of a novel compound. Both head and modifier concepts interact to constrain compound meaning (Lynott & Connell 2010; counter to Gagné & Shoben 1997).

DATA AND ANALYSIS: Spontaneous production data was collected through diary notes from a typically developing, monolingual Swedish child (F), ages 1;9–4;2. As a first step, complex nominals representing combined concepts are extracted from the data and analysed for form and semantics. As a second step, around 300 unique novel word-formations (i.e. non-established), of which most are NN

compounds, are analysed in contrast to other available means for expressing a similar content (web counts control for plausibility).

RESULTS AND CONCLUSION: NN compounds predominate in the data, seemingly to the detriment of other options, such as AN-phrases (that by their preference for the IS relation bear resemblance to NN compounds, as claimed by Krott et al. 2009):

(1)   NN   *blomklänning* (3;0) (990 Google hits)
                    'flower-dress'
(2)   A N   *blommig klänning* (211,000 Google hits)
                    'flowery-dress'
(3)   N P N   *klänning med blommor (på)* (27,600 Google hits)
                    'dress with flower-PL (on)'

Since compounds combine phonology and semantics (e.g. Jackendoff 2009), children's early use of compounding — in languages where compounding is an available and profitable option (cf. Corbin 1987; Bauer 2001) — could be cognitively motivated: this study proposes that it is a simpler option to combine concepts into a compound, with an underspecified relation, instead of using more complex syntactic phrases or derivations. During early stages of language development (around age 2), to concatenate two nouns into a compound could be the preferred pattern. But as their language develops, children will start to use other target-like constructions for combined concepts in parallel to compounding.

References

Barsalou, L. W. (2003). Situated simulation in the human conceptual system. *Language and Cognitive Processes*, 18: 513–562.

Bauer, L. (2001), *Morphological productivity*, Cambridge: Cambridge University Press.

Corbin, D. (1987). *Morphologie dérivationelle et structuration du lexique*, 2 Vol. Tübingen: Niemeyer.

Dressler, W. U., Lettner, L. E. & Korecky-Kröll, K. (2010). First language acquisition of compounds: With special emphasis on early German child language. In S. Scalise & I. Vogel (Eds.), *Cross-disciplinary issues in compounding*, 323–344. Amsterdam/Philadelphia: Benjamins.

Gagné, C. L. & Shoben, E. J. (1997). Influence of thematic relations on the comprehension of modifier-noun combinations. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 23(1), 71–87.

Gelman, S. A. & Gottfried, G. M. (2016). Creativity in young children's thought. In J. C. Kaufman & J. Baer (Eds.), *Creativity and reason in cognitive development*, 2nd ed., 9–32. Cambridge: Cambridge University Press.

Jackendoff, R. (2009). Compounding in the parallel architecture and conceptual semantics. In R. Lieber & P. Štekauer (Eds.), *The Oxford handbook of compounding*, 105–128. Oxford: Oxford University Press.

Krott, A., Gagné, C. L. & Nicoladis, E. (2009). How the parts relate to the whole frequency effects on children's interpretation of novel compounds. *Journal of Child Language*, 36: 85–112.

Lynott, D. & Connell, L. (2010). Embodied conceptual combination. *Frontiers in Psychology*, Volume 1. Article 212: 1–14.

Mahon, B. Z. (2015). What is embodied about cognition? *Language, Cognition and Neuroscience*, 30(4): 420–429.

Rainer, F. (2013). Can relational adjectives really express any relation? An onomasiological perspective. *SKASE Journal of Theoretical Linguistics*, 10(1): 12–40.

Waxman, S.R., Fu, X., Arunachalam, S., Leddon, E., Geraghty, K. & Song, H. (2013). Are nouns learned before verbs? Infants provide insight into a long-standing debate. *Child Development Perspectives*, 7(3): 155–159.

WORKSHOP 27

Why Is 'Why' Unique? Its Syntactic and Semantic Properties

Joanna Blochowiak, Gabriela Soare, Luigi Rizzi, & Ur Shlonsky

(Université de Genève; Université de Genève; Université de Genève/University of Siena; & Université de Genève)

It has been known for about 20 years that 'why' differs from other wh-elements syntactically, semantically and pragmatically: (i) for instance, unlike other wh-elements, 'why' can co-occur with focused elements, and this imposes different conditions on what can count as a possible answer to a why-question (Bromberger 1992), (ii) the latter trigger implicatures which are different from those of non-why-questions (Bromberger 1992), (iii) 'why' does not leave a trace or a copy within the IP, (iv) its peculiar properties extend to the PF interface as it exhibits special intonational contours.

Several authors have argued that unlike other wh-elements, the adjunct 'why' (and its equivalent in other languages) is externally merged in the left periphery of the clause (Rizzi 1990, 2001, Hornstein 1995, Ko 2005, Stepanov and Tsai 2008, Thornton 2008), or that it moves locally within the left periphery (Shlonsky and Soare 2011).

'Why' and 'for which reason' in multiple wh-constructions
One of the main goals of this workshop is to look into the distribution of 'why' and its counterpart 'for which reason' in multiple wh-constructions. Cross-linguistically, they may have distinct categorial status, which then has consequences on their merge positions.

'Why' and locality
Assuming that 'why' is merged in Spec InterrogativeP, it is not sensitive to any intervention effects. However, in long-distance construals, it has been argued that the target of movement of 'why' is FocusP (Rizzi 2001). Hence it is expected to give rise to minimality effects. The workshop proposes to investigate such cases further.

Acquisition of 'why'
In point of acquisition, Thornton (2008) argues that the child acquiring English initially adopts the parametric properties of 'why' of Italian-like languages thus providing an important example of parametric discontinuity, meaning that the child adopts one value and then switches to another one. This raises the question of what determines the initial discontinuity, and the later convergence to the target value.

It has been known for about 20 years that 'why' differs from other wh-elements in point of syntax, semantics and pragmatics. This workshop aims at bringing together researchers working on any of these aspects which single out 'why'.

We welcome contributions exploring the above-mentioned topics and others including (but not limited to) the following research questions:

- How does 'why' behave in wh-in-situ languages? Is there a difference between partial wh-in-situ language like French (in main clauses) and true wh-in-situ languages? How does it behave in other languages?
- If 'why' is externally merged in the left periphery, does one find languages with a dedicated overt particle?
- What properties make 'why' attach to anything unlike other wh-elements (Why this book? Vs. *How/*When this book?) (see also de Villiers 1991, 1996)
- The acquisition results underscoring the specificities of 'why' are related to corpus study. Can one submit the properties of 'why' to experimentation?
- At the PF interface, 'why' has special intonational contours. Work on different languages is further needed to pursue this line of experimental investigation.

References

Aoun J. (1986). *Generalised Binding.* Cambridge, Mass: MIT Press.

Bromberger S. (1992). *On what we know we don't know. Explanation, Theory, Linguistics, and How Questions Shape Them.* Palo Alto, CA: Stanford University.

de Villiers J. (1991). Why questions ? In T. Maxfield and B. Plunkett (eds.) *WH: Papers in the acquisition of Wh.* University of Massachusetts Occasional Papers in Linguistics. 155-173. Amherst, MA: GLSA.

de Villiers J. (1996). "Defining the open and closed program for acquisition: The case of wh-questions." *Towards a genetics of language.* 145-184. Mahwah, NJ: Erlbaum.

Higginbotham J. (1993) "Interrogatives." In K. Hale and S. J. Keyser (eds.) *The View From Building 20: Essays in Linguistics in Honor of Sylvain Bromberger.* 195–227. Cambridge, Mass: MIT Press.

Hornstein N. (1995). *Logical Form: From GB to Minimalism*, Oxford: Blackwell.

Ko H. (2005). "Syntax of *why*-in-situ: merge into [Spec, CP] in the overt syntax." *Natural Language & Linguistic Theory 23*(4): 867-916.

Rizzi L. (1990). *Relativized Minimality.* Cambridge, Mass: MIT Press.

Rizzi L. (2001). "On the position "Int (errogative)" in the left periphery of the clause."

In G. Cinque and G. Salvi (eds.) *Current Studies in Italian Syntax. Essays offered to*

Lorenzo Renzi. 287-296. Amsterdam: Elsevier North-Holland.

Shlonsky U. and G. Soare (2011). " Where's' Why"'. *Linguistic Inquiry 42*(4): 651-669.

Stepanov A. and W. T. D. Tsai (2008). "Cartography and licensing of wh-adjuncts: a cross-linguistic perspective." *Natural Language & Linguistic Theory 26*(3): 589-638.

Thornton R. (2008). "Why continuity." *Natural Language & Linguistic Theory 26*(1), 107- 146.

On some special properties of *why* in syntax and prosody

Giuliano Bocci, Silvio Cruschina, & Luigi Rizzi

(University of Geneva; University of Vienna; & University of Geneva/University of Siena)

Syntactic research over the last twenty years has uncovered numerous peculiarities in the syntactic behavior of *why*, in comparison with other wh-elements. A core property is that, in some languages requiring subject inversion in wh-interrogatives, *why* is exceptional in that it allows the non-inverted

order wh – subject – inflected verb (Rizzi 1997 and subsequent work). This can be illustrated by the contrast between *what* (1) and *how* (2), on the one hand, and *why* (3), on the other hand, in Italian:

(1) ** Che cosa   Gianni dice   a Piero?*
    what   Gianni says to Piero

(2) ** Come Gianni contatterà   Piero?*
    how   Gianni will-contact Piero

(3) *Perché Gianni contatterà   Piero?*
    why   Gianni will-contact Piero

It has been proposed that, while other wh-elements are extracted from the IP, *why* is externally merged in a dedicated position, the Spec of Int(errogative) in the left periphery (LP) (see Rizzi 2001; alternatively, *why* could be taken to move locally to Spec Int from another LP position: Shlonsky & Soare 2011). Int° also hosts the marker of embedded yes-no questions corresponding to English *if*. Int° is inherently endowed with +Q, and does not trigger movement of a verbal element to the LP, contrary to the lower LP position that triggers movement of other wh-elements from the IP.

In order to test whether the syntactic peculiarities of *why* associate with specific prosodic properties, we carried out a production experiment whereby we compared the prosodic behaviour of *why* and other bare wh-elements in direct wh-questions. The results show that, in the presence of other wh-elements, the main prominence is assigned to the lexical verb and never to the wh-element itself. We argue that this reflects the derivational history of the wh-element: main prominence in Italian tracks the intermediate positions of the wh-element, which moves stepwise from a vP (or PredP) internal position to the vP edge, and then to the CP system. This mirrors at the prosodic level what is expressed morpho(phono)logically in "wh-agreement" constructions in languages like Chamorro (Chung 1994) and Welsh (Willis 2000). More specifically, main prominence is assigned to the phase head (most typically, the lexical verb) adjacent to the intermediate position at the edge of vP through which the wh-phrase moves.

A different pattern is observed with *why*: in interrogative sentences introduced by *why*, the main prominence typically falls on *why* itself, as expected if it were directly merged in the left periphery, even though it can alternatively fall on another constituent for independent focalization purposes. We take this prosodic asymmetry to be the direct reflex of the different syntactic derivation of *why*, which, unlike other wh-elements, does not undergo cyclic movement from a clause internal position, but is externally merged in a LP dedicated position.

These empirical findings support the cartographic view that the syntactic structure guides computational processes at the interfaces with meaning and sound (Cinque & Rizzi 2010, Rizzi & Bocci 2016), showing, more specifically, that certain aspects of syntactic structure directly condition phonological processes such as the assignment of prominence.

References

Chung, Sandra (1994). Wh-Agreement and "Referentiality" in Chamorro. *Linguistic Inquiry* 25 (1): 1–44.

Cinque, Guglielmo & Luigi Rizzi (2010). The cartography of syntactic structures. In Heine Bernd & Narrog Heiko (eds), *The Oxford Handbook of Linguistic Analysis*. Oxford: Oxford University Press, 65–78.

Rizzi, Luigi & Giuliano Bocci (2016). *The left periphery of the clause*. In Everaert M. & van Riemsdijk H. (ed.s), The Companion to Syntax, 2nd edition. Oxford: Blackwell.

Rizzi, Luigi (1997). The Fine Structure of the Left Periphery, in Haegeman L. (ed.), *Elements of Grammar*. Dordecht: Kluwer, 281–337.

Rizzi, Luigi (2001) On the Position 'Int(errogative)' in the Left Periphery of the Clause, in Cinque G., Salvi G.P. (eds), *Current Studies in Italian Syntax: Essays offered to Lorenzo Renzi*. Amsterdam: North Holland, 287–296.

Shlonsky, Ur & Gabriela Soare (2011). Where's 'why'?. *Linguistic Inquiry* 42(4): 651–669.

Willis, David (2000). On the distribution of resumptive pronouns and wh-trace in Welsh. *Journal of Linguistics* 36: 531–573.

Why-in-situ in Northern Italian Dialects

Caterina Bonan & Ur Shlonsky
(Université de Genève)

Many studies starting from Munaro 1997 have shown that some Venetan dialects license a wh-element in situ in both root and embedded 'real' questions, just like French. Differently from French though, these dialects systematically combine *insituness* and *subject clitic inversion* (1a-b):

1) a. *Tu as   fait **quoi**?*   (French)
    youCL have done what

  b. *A-tu   fato **che/cossa**?*   (Trevigiano)
    have- youCL done what

Our recent fieldwork showed that in Trevigiano, a variety spoken in the Provincia di Treviso, bare and complex wh-elements display the *in situ-ex situ alternation* to an even higher degree than they do in Munaro's variety of Bellunese. In fact, this language also allows complex wh-elements to sit in situ (2a-b):

2) a. *{**Che vestito**} a-tu sielt {***che vestito**}?*   (Bellunese)
    what dress have-youCL chosen what dress

  b. *{**Che vestito**} a-tu scelto {**che vestito**}?*   (Trevigiano)
    what dress have-youCL chosen what dress

The variation between question formation in French and the Venetan dialects becomes even more interesting when we consider the fact that closely-related Italian does not license insituness and never displays subject clitic inversion.

  Our study focuses on the special behavior of 'why' in Trevigiano. First, we claim that Trevigiano has two different 'why', *parché* and *parcossa*. Then, we show that *parché* is marginal in situ (3a), whereas *parcossa* is perfect (3b):

3) a. *??A-tu magnà **parché**?*   (Trevigiano)
    have-youCL eaten why

  b. *A-tu magnà **parcossa**?*   (Trevigiano)
    have-youCL eaten why

  Our data pose a problem for the widely-accepted view that 'why' and its synonyms are merged in a very high position in the Left Periphery. On the surface, the approach arguing for a 'remnant TP

movement' to a left peripheral position higher than the wh-element (Munaro et al 2001, and subsequent work) might seem to account for the presence of 'why' in situ. However, in Munaro et al's analysis the movement of the remnant TP targets a position right above bare wh-nominals, which means that adverbials and complex wh-elements land in a position higher than that targeted by TP movement and should never be clause-final. This appears not to be the case in Trevigiano, since it licenses both lexically-restricted and adverbial wh-elements as *how* and *why* in the right edge of the clause. If we accept the idea that wh-elements appear cross-linguistically in the same hierarchical positions in the left periphery, the lack of argument/adverbial and bare/restricted asymmetries suggests t a rethinking of the remnant TP movement analysis.

We explain our data by developing an analysis of the above generalization based on Rizzi's 1997 *Relativized Minimality* (and its latest refinements), and we compare it to Poletto&Pollock's 2015 last argumentation in favour of the remnant movement analysis.

References

Munaro, Nicola. 1997. *Proprietà strutturali e distribuzionali dei sintagmi interrogativi in alcuni dialetti italiani settentrionali*. PhD dissertation. Universities of Padua/Venice.

Munaro, Nicola, Cecilia Poletto & Jean-Yves Pollock. 2001. *Eppur si muove: On comparing French and Bellunese wh-movement*. Lingusitics Variation Yearbook I(1). 147–180.

Poletto, Cecilia & Jean-Yves Pollock. 2015. *Arguing for remnant movement in Romance*. In G. Grewendorf (ed.). Remnant movement. Berlin: Mouten de Gruyter. 135–178.

Rizzi, Luigi. 1997. *The fine structure of the left periphery*. In Haegeman Liliane (ed.). Elements of Grammar. Dordrecht et alibi: Kluwer. 281-337.

Why the heck do we need to differentiate? Notes on the Merge position of German *warum*

Nicholas Catasso

(Ludwig-Maximilians-Universität München)

In this paper, data from German, a single *wh*-movement system, are discussed that suggest that *warum* ('why') does, in fact, exhibit the same syntactic behavior as other interrogative *wh*-elements such as *was* ('what') as to its Merge position.

In fact, it seems that *warum* may pied-pipe (multiple) modal particles to the left periphery (cf. Bayer & Trotzke 2015):

(1)   a. Warum denn bloß sollte ich mich anders   verhalten?
          why   PRT PRT   should I   REFL differently behave
        b. Warum denn sollte   ich mich bloß anders   verhalten?
          why   PRT   should   I   REFL PRT differently behave
        c. Warum sollte ich mich denn bloß anders   verhalten?
          why   should I   REFL PRT PRT   differently behave

This indicates that the *wh*-element originates in the middlefield and moves to the left periphery, optionally taking the particle(s) along.

Moreover, *wh*-intensifiers like *zum Teufel* ('the hell') may move together with the *wh*-element to the CP or, in a slightly more marked construction, remain in the lower area as a litmus test of the trace of *warum* in that position.

(2) a. [Warum zum Teufel]$_i$ bin ich [t$_i$] nicht gegangen?
            why   the   hell   am I   NEG gone
      b. [Warum]$_i$ bin ich [[t$_i$] zum Teufel] nicht gegangen?
            why   am I   the hell   NEG gone

Insofar, German apparently represents an 'exception' to Rizzi's (2001) and Shlonsky & Soare's (2011) seminal observations on the cross-linguistic behavior of *why*, implying that e.g. in Italian, English and Romanian this element is merged either in [Spec,IntP] or in [Spec,ReasonP], since the a/m systems disallow *wh*-intensifier split.

Given that there is independent evidence for a Split-CP in German à la Rizzi (1997) and differences in base-generation site are, thus, not necessarily attributable to a reduced CP, such facts may call for a typological investigation implying a classification of languages based on the Merge site of causal interrogatives.

References

Bayer, J. & Trotzke, A. (2015). The derivation and interpretation of left peripheral discourse particles. In Bayer, J., Hinterhölzl, R. & Trotzke, A. (eds.), *Discourse-oriented Syntax*, 13-40. Amsterdam/Philadelphia: Benjamins.

Rizzi, L. (1997): The Fine Structure of the Left Periphery. In Haegemann, L. (ed.), *Elements of grammar*, 281-337. Dordrecht: Kluwer.

Rizzi, L. (2001). On the position of Int(errogative) in the left periphery of the clause. In Cinque, G. & Salvi, G. (eds.), *Current Studies in Italian Syntax*, 287-296. Amsterdam: Elsevier.

Shlonsky, U. & Soare, G. (2011). Where's 'Why'? *Linguistic Inquiry* 42/4: 651-669.

Why there is no non-interrogative *why*

Carlo Cecchetto & Caterina Donati
SFL, CNRS and Paris 8 & LLF, CNRS and Paris Diderot)

An often neglected fact contributes to making *why* the odd one out among *wh*-words: it does not have a non-interrogative adverbial use, unlike *when*, *where*, *if* and *how*.

(1) I am sad when you leave
(2) I went where you told me to go
(3) I will go if you go
(4) I left my job how you left yours
(5) *I left why you left

Attributing the ungrammaticality of (5) to a blocking effect induced by *because* would of course beg the question, since one might ask why English and other languages did not develop non-interrogative counterparts of *how*, *where*, *when* and *if* triggering a similar blocking effect. We will

explain the ungrammaticality of (5) by building on the fact that, as has been proposed for independent reasons in the previous literature (cf. Rizzi 2001 a.o.), *why* is **externally** merged in a dedicated position in the COMP area, therefore it leaves no trace. This is our reasoning: in (1) to (4) the adverbial interpretation is contingent on the presence of a *wh*-trace. For example (1) can be paraphrased by saying that I am sad at any given moment(s) *x* such that you leave at moment *x* (similarly in (2) to (4)). The fact that *why* leaves no trace is responsible for the lack of the parallel meaning in (5), namely "I left for whatever reason *x* such that you left for the same reason *x*". Notice that the reason clause "I left because you left" has a different meaning ("I left as a consequence of your leaving"), which does require a trace.

As we will show, languages like Italian, where *why* and *because* are not lexically distinct, are consistent with this analysis, since the reading contingent on the presence of a *wh*-trace never arises.

In the last part of the talk, we will deal with a related but distinct question. It is well known that adverbial clauses are islands for extraction. It has been proposed that temporal, locative, manner and conditional clauses have the syntax of (free) relatives (cf. Caponigro 2003, Bhatt and Pancheva 2006 a.o.) and therefore are excluded by whatever condition makes relative clauses an island (cf. Cecchetto and Donati 2015 for an explicit implementation). However, since we propose that reason clauses do not contain a trace they cannot be assimilated to relatives. So, why are they strong islands (cf. 6)?

(6) *Who did he get angry [because you insulted *t*] ?

In order to answer this question we will capitalize on the hypothesis that reason clauses are merged in the same structural position where *why* is merged and that, since this position is in the higher portion of the CP field, wh-extraction out of a reason clause is bound to be an illicit case of lowering.

References

Bhatt, R. and R. Pancheva. 2006. Conditionals. In M. Everaert and H. van Riemsdijk, eds. *The Blackwell Companion to Syntax.* 638–687. Oxford: Blackwell.

Caponigro, I. 2003. Free not to ask: On the semantics of free relatives and wh-words crosslinguistically. Doctoral Dissertation, UCLA.

Cecchetto C. and C. Donati. 2015. *(Re)labelling*. Cambridge: MA, MIT Press

Rizzi, L.. 2001. On the position ''int(errogative)'' in the left periphery of the clause. In G. Cinque and G. Salvi, eds., *Current studies in Italian syntax: Essays offered to Lorenzo Renzi*, 267–296. Amsterdam: Elsevier.

What-as-*Why* questions in Cantonese

Lisa Lai-Shen Cheng

(Leiden University)

Aside from using the regular counterparts of *why,* both Cantonese and Mandarin can express causal *why*-interpretation by using their respective counterparts of *what* (1). Cantonese can further use a sentence-initial *what* to express causal *why* (2).

(1) a. Nǐ   zài   xiào   **shénme**   (Mandarin)

          you   prog   laugh   what

     b. Lei^5 hai^{2}dou^6 siu^3 **mat^1**   aa^3 (Cantonese)

	you	prog	laugh	what	sfp

'Why are you laughing?

(2) Mat[1] Akiu ho[2]ji[3] heoi[3] toi[4]bak[1]ge[2]? (Cantonese)

what Akiu can go Taipei sfp

'Why/how come Akiu can go to Taipei?'

The data in Cantonese raise a number of interesting questions: (i) What is the source of causal readings in (1) and (2)? (ii) Since Chinese languages do not have *wh*-movement, the sentence-initial *mat*[1] is particularly interesting. Is the sentence-initial *mat*[1] base-generated in the left periphery (thus counter Shlonsky and Soare 2011)? and (iii) Is the causal interpretation of (1) and (2) similar or different from the causal interpretation of *why*-questions?

In this talk, I argue that the postverbal *mat*[1] 'what' in Cantonese (and Mandarin) and the sentence-initial *mat*[1] 'what' in Cantonese have different sources. In particular, I argue that the postverbal *what* has an applicative source (cf. Tsai 2011), by comparing sentences such as (1a,b) with data from Bantu languages. I argue that the sentence-initial *mat*[1] 'what' in Cantonese is similar to the split-exclamatives in Dutch and *was*-exclamatives in German, suggesting that the causal reading in (2) is a result of a composition of factivity, surprise and scalar focus.

Reason applicatives

Aside from the typical (high) applicatives such as benefactives (see Pylkkänen 2008), applicatives can have interpretations such as subject matter, purpose and cause (Du Plessis and Visser 1992), as in (3).

(3) a. Ngi-m-thand-*el*-a ubuqotho bakhe (Zulu, Buell 2007)

1s-1om-appl-fv 14.honesty 14.her

'I like her for her honesty.'

b. U-cul-*el*-a-**ni**

2s-sing-appl-fv-what

'Why are you singing?'

Following Cheng and Sybesma (2015), I show that sentences such as (1) have both a subject matter reading (i.e., 'What are you laught *at*?') and a reason-applicative reading.

Initial what-*exclamatives*

I compare the sentence initial *mat*[1] 'what' in Cantonese with *was*-questions in German (and Dutch), which have similar readings (4) (see Ochi 1999, d'Avis 2000).

(4) *was* lachst du (denn)? (German)

what laugh you prt

'Why are you laughing?'

(5) a. Wat heeft Jan een boeken gekocht! (Dutch)

what has John a books bought!

'What a lot of books John bought!'

b. Wat was ze vroeger mooi!

what was she formerly beautiful

'How beautiful she was in the past!'

I argue that *was* in (4) as well as *mat*[1] 'what' in Cantonese are similar to *was* in split-exclamatives in German/Dutch (5) (cf. Corver 1990), as well as the scope-marking sentences (cf. d'Avis 2000). In

particular, I show that sentence-initial *what*-questions in Cantonese, Dutch/German are similar to *how come* questions (Fitzpatrick 2005, Conroy 2006) rather than *why*-questions. I argue that the ingredients of these questions are similar to the ingredients of *wh*-exclamatives, suggesting that sentence-initial *what* occupies a position linked to factivity.

References

Buell, Leston. 2007. Asking *why* in Zulu. Ms. Leiden University.

Cheng, Lisa L.S. and Rint Sybesma. 2015. Transitive psych-predicates. In Audrey Li, Andrew Simpson and Dylan Tsai (eds.) *Chinese Syntax in a Cross-linguistic Perspective*, 207-228. Oxford University Press.

Conroy, Anastasia. 2006. The semantics of *how come:* A look at how factivity does it all. In N. Kazanina, U. Minai, P. Monahan and H. Taylor (eds.) *University of Maryland Working Papers in Linguistics* 14, 1-24.

Corver, Norbert. 1990. *The syntax of left branch extractions.* PhD Dissertation. Katholische Universität Brabant.

d'Avis, Franz-Josef. 2000. On the wh-expletive *was* in German. In U. Lutz, G. Müller and A. von Stechow (eds.) *Wh-scope marking*. 131-156. John Benjamins.

Du Plessis, J.A. and M. Visser. 1992. *Xhosa Syntax*. Via Africa.

Fitzpatrick, Justin. 2005. The whys and how comes of presupposition and NPI licensing in questions. In J. Alderete et al. (eds.) *Proceedings of the 24th West Coast Conference on Formal Linguistics*. 138-145.

Ochi, Masao. 1999. *Constraints on feature checking*. PhD dissertation. University of Connecticut.

Pylkkänen, Liina. 2008. *Introducing arguments*. MIT Press.

Shlonsky, Ur and Gabriela Soare. 2011. Where is 'why'? *Linguistic Inquiry* 42.4: 651-669.

Tsai, Wei-tien Dylan. 2011. Cong *"zhe hua cong he shuo qi?"* shuo qi. [Starting from "From where do we start this conversation"]. *Yuyanxue Luncong* 43.

Norbert Corver

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Why-Marked Rhetorical Questions

Edit Doron & Lavi Wolf

(The Hebrew University of Jerusalem & Ben-Gurion University of the Negev)

The paper offers an analysis of the *why*-marked Rhetorical Question (RQ), a colloquial construction of Hebrew, Arabic and Neo-Aramaic described by Khalaily and Doron (2016), which consists of a *why*-question embedding an additional question Q, yet is interpreted as a single RQ doubly-marked by two *wh*-phrases. We propose that this RQ conventionally encodes the rejection by the speaker of a previous speech act of the addressee.

The following dialogue is in Hebrew (the data consist of attested examples in Hebrew, Neo-Aramaic, and Palestinian Arabic):

(1) A: *le'an laqħu oto ?*
   where they.took him?
  'Where did they take him?
  B: **lama eyfo** *yiqħu*   *oto ?* *bet.mešuga'im*
   why where they.would.take him? loony.bin
  'Where would they take him? (and why assume there might be various alternatives?) To the loony bin.'(from Dan-Benaya Seri, *Dead Fish in Jaffa,* 2003: 87)

Following Caponigro & Sprouse (2007) we assume that RQs have the same semantics as ordinary questions. We adopt the semantic analysis of questions of Karttunen (1977), e.g.

(2) $[[\text{Where would they take him?}]] = \lambda p. \exists x[p= \text{they would take him to } x] \& p(w_0)$

One of the special properties of *why* is that it can be used *metalinguistically* (cf. Ginzburg 2012), a use which, similarly to metalinguistic negation (Horn 1985), targets speech acts rather than propositions. While the standard use of *why* inquires about justifications for [[S]], where S is a sentence, as in (3), the metalinguistic use inquires about justifications for a previous utterance S by the addressee, as in (4):

(3) $[[\text{Why S}]] = \lambda p. \exists x[p= x \text{ is a justification for } [[S]]] \& p(w_0)$
(4) $[[\text{Why SA}_A\text{S}]] = \lambda p. \exists x[p= x \text{ is a justification for } [[SA_A S]]] \& p(w_0)$
  condition: $SA_A S$ describes a previous speech act SA performed by addressee *A* uttering S

 In the *why*-marked RQ, the metalinguistic *why*-question is sluiced: [[Why SA_AS] Q]. We propose that the combination of the metalinguistic *why* with Q yields a speech act which rejects SA_AS by demonstrating that the metalinguistic question is rhetorical. Rhetorical questions are of two types. Type1 is a question emphatically marked (Krifka 1995; Chierchia 2013) which returns an empty set as the answer, termed *challenging* RQ. Type2 depends on the CG (Common Ground) providing a single answer for the RQ (Caponigro & Sprouse, 2007) termed *obvious* RQ. Example (1) contains both RQ types. The doubly marked question in (1B) is composed of (5) and (6):

(5) $[[\text{Why SA}_A\text{S}]] = \lambda p. \exists x[p= x \text{ is a justification for } [[SA_A\text{'(1A)'}]]] \& p(w_0)$
(6) $[[\text{Q}]] = \lambda p. \exists x[p = \text{they would take him to } x] \& p(w_0)$

 The only answer to (6), 'loony bin', is considered obvious in the CG, hence (6) is a type 2 RQ. This renders question (1A) rhetorical as well, since it can only have the single answer of the modal question (6). Asking an information seeking question that already has an answer is unjustifiable – hence (5) is a type 1 RQ, as there is no justification for A's speech act (1A). This is the conventionalized effect of B's utterance.

References
Caponigro, I. and Sprouse, J. 2007, Rhetorical questions as questions, in E. Puig-Waldmüller (ed.), *Proceedings of Sinn und Bedeutung 11*. 121-133. Barcelona: Universitat Pompeu Fabra.
Chierchia, G. 2013. *Logic in Grammar: Polarity, Free Choice, and Intervention.* Oxford: OUP.
Ginzburg, Jonathan. 2012. *The Interactive Stance: Meaning for Conversation*. Oxford: OUP.
Horn, L.R. 1985. Metalinguistic negation and pragmatic ambiguity. *Language* 61: 121-174.
Karttunen, L. 1977. Syntax and semantics of questions. *Linguistics and Philosophy* 1: 3-44.

Khalaily, S. and E. Doron. 2016. 'Colloquial Modern Hebrew Doubly-Marked Interrogatives and Contact with Arabic and Neo-Aramaic Dialects' in E. Doron (ed.) *Language Contact and the Development of Modern Hebrew.* Leiden: Brill. 112-127.

Krifka, M. 1995. The Semantics and Pragmatics of Polarity Items. *Linguistic Analysis* 25: 209–257.

On Postverbal *Why*-questions in Chinese

Wei-Tien Dylan Tsai

(National Tsing Hua University)

It is generally observed across languages that *why*-questions are formed by merging the relevant *wh*-expression high up in the left periphery (cf. Rizzi 1990, 2001, Ko 2006, Stepanov & Tsai 2008, Tsai 2008, Shlonsky & Soare 2011, among others). This paper investigates a class of postverbal *wh's* in Chinese which give unexpected *why*-construals with a touch of "whining" force, as illustrated by the following Mandarin example:

(1)　　Akiu　zài　　kū　　shénme?!　　　　　　　　　　　　[Mandarin whining *what*]
　　　　P. N.　Prg　　cry　　what
　　　　'What the heck is Akiu crying for?! (He shouldn't be crying.)'

Since typical Mandarin *why* evolves from a PP *wei shenme* 'for what', we propose that (1) actually involves an implicit light verb FOR (or a silent applicative head to the same effect), to which the main verb *ku* 'cry' raises in overt syntax, as shown in the following derivation:

(2)　　Akiu　zài　　FOR　　　　shénme kū?!
　　　　P. N.　Prg　　L.V.　　　　what　　cry
　　　　⇒　　Akiu　zài　　kū-FOR　　shenme <kū>?!
　　　　　　　P. N.　Prg　　cry-L.V.　　what　　cry

In fact, it is possible not to delete the lower copy of the raised verb *kū* 'cry' above. The result looks very much like Chinese verb-copying:

(3)　　Akiu　zài　　kū　　shénme kū?!　　　　　　　　　　　[Mandarin whining *what*]
　　　　P. N.　Prg　　cry　　what　　cry

According to Cheng (2007), verb-copying applies at failure to reduce a verb chain, as its lower copy has been fused with an aspect marker. In our case, raising to FOR is more in line with the raising to Foc in the sense of Hornstein & Nunes (2002) and Nunes (2004): That is, it triggers a morphological fusion between the main verb and the light verb, even though the latter category is silent (also cf. Tsai 2014).

Furthermore, the *wh*-in-situ in question must be linked to the Force head in the periphery through unselective binding (or Agree in a broader sense) to give the appropriate pragmatic construal (i.e., whining), as illustrated below:

(4)　　[$_{\text{ForceP}}$ Op$_x$ . . . [Akiu　zài　　kū-FOR　　　shenme(x)　　<kū>]]?!
　　　　　　　　　　　　　　Akiu　Prg　　cry-L.V.　　what　　　　　cry

Our position is further supported by its counterpart in Taiwan Southern Min (henceforth TSM): The copula *sī* normally associated with reason *how* in (5) must also appear to license the postverbal whining *how* in (6):

(5)   Tsuísūn **sī**-ántsuánn   teh   khàu?   [TSM reason *how*]
        P. N.   be-how   Prg   cry
        'Why is Tsuisun crying?'

(6)   Tsuísūn *(**sī**)   teh   khàu   ántsuánn?   !   [TSM whining *how*]
        P. N.   be   Prg   cry   how
        'Why the hell is Tsuisun crying?! (He shouldn't be crying.)'

Here *sī* acts really like a scope marker for postverbal *ántsuánn* 'how' with a twist of force, namely, shifting from interrogative to whining. Our account thus not only explains away the exceptions to the cross-linguistic generalization about the placement of *why*, but also reconstruct the correct cartography of these "ill-behaved" *why*-questions.

Selected References

Cheng, Lisa L-S. 2007. Verb copying in Mandarin Chinese. In *The Copy Theory of Movement on the PF Side*, ed. Norbert Corver and Jairo Nunes, 151-174. Amsterdam: John Benjamins.

Hornstein, Norbert, and Jairo Nunes. 2002. On Asymmetries between Parasitic Gap and Across-the-board Constructions. *Syntax* 5: 26-54.

Ko, Heejeong. 2005. Syntax of *why*-in-situ: Merge into [Spec, CP] in the overt syntax. *Natural Language and Linguistic Theory* 23.4: 867-916.

Ko, Heejeong. 2006. On the Structural Height of Reason *Wh*-adverbials: Acquisition and consequences. In *Wh-movement moving on*, ed. L. Cheng and N. Corver, 319-349. Cambridge MA: MIT Press.

Nunes, Jairo. 2004. *Linearization of Chains and Sideward Movement*, Cambridge, MA: MIT Press.

Rizzi, Luigi. 1990. *Relativized Minimality*. Cambridge, MA: MIT Press.

Rizzi, Luigi. 2001. On the Position "Int(errogative)" in the Left Periphery of the Clause. In *Current studies in Italian syntax: Essays offered to Lorenzo Renzi*, ed. Guglielmo Cinque and Giampaolo Salvi, 267–296. Amsterdam: Elsevier.

Shlonsky Ur and Gabriela Soare. 2011. Where's Why? *Linguistic Inquiry* 42.4: 651-669.

Stepanov, Arthur, and Wei-Tien Dylan Tsai. 2008. Cartography and Licensing of WH-Adjuncts: A Cross-linguistic Perspective. *Natural Language & Linguistic Theory* 26: 589-638.

Tsai, W.-T. Dylan. 2008. Left Periphery and *How-Why* Alternations. *Journal of East Asian Linguistics* 17: 83-115.

Tsai, W.-T. Dylan. 2014. Syntax-semantics Mismatches, Focus Movement and Light Verb Syntax. In *Peaches and Plums* (Language and Linguistics Monograph Series), ed. Huang, James C.-T. and Feng-hsi Liu, 203-226. Taipei: Academia Sinica.

Inter-speaker variation in *how come* questions in English

Yoshio Endo

1. Survey. Zwicky and Zwicky (1973) note that many speakers allow *how come* to be followed by the complementizer *that*. However, a survey I conducted with Andrew Radford shows that most English speakers do not like *how come* immediately followed by *that*. All speakers gave very high scores (mean = 4.9) for *how come+Subject* questions, while only one speaker gave a score above 3 to *how come+Complementiser* structures (mean = 2.0). In addition, when *how come* is not adjacent to the complementizer *that*, 14/20 speakers gave a higher score than for (ii) (mean = 3.4). Independently of this joint survey, I consulted a number of other linguists and found that many speakers allow *how come* to be followed by the complementizer *that* in the presence of an intervening adverbial element. There are three patterns involving *how come* and the complementizer *that* among speakers, as shown below. Here, the letters N, V, etc. denote different linguists that I consulted.

Pattern 1: N and V report that *how come* can be followed by the omplementizer *that* only in the presence of an intervening adverbial element – a judgment shared by many speakers.

Pattern 2: K and L point out that they do not like *how come* followed by *that* even in the presence of an intervening adverbial element.

Pattern 3: R and S note that *how come* may be followed by *that* even in the absence of an intervening adverbial element.

2. Discussion. The first question that I would like to ask is why many speakers (Pattern 1 and Pattern 2) do not like *how come* immediately followed by the complementizer *that* in the absence of an intervening adverbial element. I propose that *how come* directly selects Fin[+N]. Because Fin[+N] does not host the complementizer *that*, *how come* may not be immediately followed by the complementizer *that*:

(1) [$_{INTP}$ *how come* [$_{INT}$ ø] [$_{FINP}$ [$_{FIN[+N]}$ φ/*that] …]]

Why do many speakers (Pattern 1) allow *how come* to be followed by the complementizer *that* only in the presence of an intervening adverbial element. I suggest that the following configuration is created, where Fin[+N] appears above an adverbial element directly selected by *how come* and Fin[-N] appears below the same intervening adverbial element. Here, the complementizer *that* may appear because the ModP housing the adverbial can select a FinP complement headed by Fin[-N], and a non-nominal Fin can be spelled out as *that*:

(2) [$_{INTP}$ *how come* [$_{INT}$ ø] [$_{FINP}$ [$_{FIN[+N]}$ ø] adverbial element [$_{FINP}$ [$_{FIN[-N]}$ that]…]]

Why do speakers like S and R allow *how come* to be immediately followed by the complementizer *that* (Pattern 3). I suggest that for such speakers Fin[+N] may spell-out the complementizer *that*, as shown below.

(3) [$_{INTP}$ *how come* [$_{INT}$ ø] [$_{FINP}$ [$_{FIN[+N]}$ *that*] …

Finally, why do speakers like K and L not allow *how come* to be followed by the complementizer *that* even in the presence of an intervening adverbial element. I suggest that for such speakers the complementizer *that* is exclusively hosted by Force.

Reference

Zwicky, Arnold M. & Zwicky, Ann D. (1971). How Come and What For. In Dale Eliot, Michael Geis, Alexander Grosu, Barry Nobel, Ann Zwicky, and Arnold Zwicky (eds.), *Working Papers in*

Linguistics 8: 173–185. Ohio State University.

Aritz Irurtzun

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Gabriela Soare

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Metacommunicative "why"-fragments and the grammar of the speech act layer

Rebecca Woods & Luis Vicente
(University of Huddersfield & University of Potsdam)

The high left periphery has been proposed by many authors (Rizzi 1997, Speas & Tenny 2003, Krifka 2014 *inter alia*) to contain illocutionary force operators, but the fact that these operators are rarely overtly realised makes them hard to study. We claim that *metacommunicative-why fragments*, as shown in (1B), constitute a novel tool to probe the properties of the proposed speech act layer:

1. A: Is Sally here?
   B: Why? [≈ what is your motivation for asking me that?]

Metacommunicative "why"-fragments are highly restricted in their distribution: they can only be used following root interrogatively-typed information-seeking questions (i.e. not echo questions, rhetorical questions, interrogatively-typed exclamatives, declaratives (*contra* Ginzburg 2012) or embedded questions); they cannot be licensed by pragmatic meaning alone, i.e. they cannot follow indirect questions; they must be used in the turn immediately following the information-seeking question; they may only be used by the addressee of the original question. Such characteristics suggest that metacommunicative-"why" interacts with both interrogative clause-typing and syntactically-represented illocutionary force.

The meaning of these fragments is also very restricted; they query the motivation behind the speaker's question. Note that "why"-fragments may, if uttered in response to a declarative containing an overt modal, query the ordering source of the modal:

2. A: Sally must be home.
   B: Why? [=on what grounds do you conclude that?]
   A: She's not answering her office phone.

We propose that the parallelism between (1) and (2), rather than being accidental, indicates that at least some speech acts are syntactically represented as very high silent modal operators. Based on the facts above, we analyse metacommunicative-"why" fragments as a very high adjunction of *why* above a Speech Act Phrase, headed by a modal QUESTION Speech Act operator that selects for ForceP. The Speech Act head is marked with Merchant's (2001, 2004) [E]-feature, licensing the ellipsis of ForceP.

3. [Why [$_{SAP}$ QUESTION$_{[E]}$ [ForceP is Sally here]]]? (=1B)

We support an ellipsis account of metacommunicative-why using facts from metacommunicative-why stripping. In German, metacommunicative-why-stripping shows classic case connectivity effects:

4. A: Hat er der   Sekretärin gefallen?
    has he the.DAT secretary pleased?
    "Did he please the secretary?"
B. Warum der/#die   Sekretärin?
    why the.DAT/the.ACC secretary?
    "Why the secretary?" [≈ why are you asking about the secretary, as opposed to someone else?]

The height of the speech act operator is also supported by the lack of availability of pair-list answers to metacommunicative-why strips:

5. A. Does everyone hate John?
B. Why John?
A. Because he doesn't have any friends.
A' #Because Tom said that he doesn't have any friends, and Mary said he is rude, and James said…

We propose that the QUESTION operator is a function from a set of propositions (a question set) to an intensional entity (a speech act in the discourse) with the following semantics (assuming a standard semantics of *know* and *want*, an Answerhood operator ans (cf. Dayal 2002), Q is the set of propositions expressed by CP):

6. [[QUESTION]]$_c$ = λQ. λw. Speaker in w wants to know ans$_w$(Q).
7.
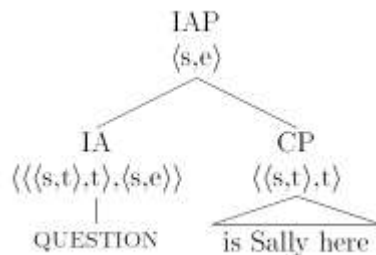
We also present further cross-linguistic evidence to highlight the difference between other uses of *why* (e.g. reason, purpose) and the metacommunicative-why fragments discussed here.

References

Dayal, V. (2002). Single-pair versus multiple-pair answers: wh-in-situ and scope, *LI* 33(3), 512-520.

Ginzburg, J. (2012). *The interactive stance: meaning for conversation.* Oxford: OUP.

Krifka, M. (2014). Embedding illocutionary acts, in. T. Roeper and M. Speas, eds. *Recursion: Complexity in Cognition* (pp. 59-88). Heidelberg: Springer.

Merchant, J. (2001). *The syntax of silence*. Oxford: OUP.

Merchant, J. (2004). Fragments and ellipsis, *Linguistics and Philosophy*, 27(6), 661-738.

Rizzi, L. (1997). The fine structure of the left periphery, in L. Haegeman, ed. *Elements of Grammar* (pp. 272-337). Dordrecht: Springer

Speas, P. and C. Tenny (2003). Configurational properties of point of view roles, in A.M. DiSciullo, ed. *Asymmetry of Grammar, Vol. 1* (pp. 315-344). Amsterdam: Benjamins.

'Why'-interrogatives in (Greek) talk-in-interaction

Theodossia-Soula Pavlidou

(Aristotle University of Thessaloniki)

The use of a 'why'-interrogative – like any question – can in principle be regarded as a request for information (cf., e.g., Stivers & Enfield 2010). Given the meaning of this particular interrogative, the requested information is the reason for something that happened or was said/done prior to its employment. That is why the request for information in this case can easily slip into a blame, complaint, challenge, etc., especially when the 'why' concerns what the recipient said or did. Adopting the framework of Conversation Analysis (cf., e.g., Schegloff 2007), the aim of this talk is to examine the forms and functions of Greek 'why'-interrogatives in real communication from a pragmatic point of view.

While there is by now considerable conversation analytic work on questions, only a few studies within Conversation Analysis turn specifically to 'why'-interrogatives. These studies discuss certain realizations of English *why*-interrogatives as "reversed polarity questions" (e.g. Koshik 2005), examine the functional differentiation of such questions depending on the lexical realization of 'why' (cf. Sterponi 2003 on Italian *perché* / *come mai* and Egbert & Vöge 2008 on German *warum* / *wieso*) or point to the ambivalent nature of soliciting accounts with *why*-interrogatives as both requests for information and as communicating a challenging stance (Bolden & Robinson 2011). Our previous work on Greek *γιατί* ('why') established that the interrogative's functions are contingent on the position it takes within a larger turn. For example, the autonomous *Γιατί;* (i.e. when the interrogative word constitutes by itself a turn-constructional unit or even a whole turn) at turn-initial position is unequivocally a vehicle for disagreement (Pavlidou & Karafoti 2015). Similar conclusions have been reached for full-fledged 'why'-interrogatives, e.g. *Γιατί άργησες τόσο πολύ;* 'Why are you so late?' (Pavlidou 2016).

The present paper focuses on full-fledged 'why'-interrogatives. Such interrogatives do not only indicate that there is some problem with respect to the preceding turn/talk, as autonomous 'why'-interrogatives also do, but make explicit what the source of the problem is as well. The data are drawn from everyday conversations (face-to-face or over the telephone) and TV-interviews with politicians, which are all part of the *Corpus of Spoken Greek* (http://ins.web.auth.gr/index.php?lang=en&Itemid=251). Analysis focuses on the design of the turn containing (or consisting entirely in) the 'why'-interrogative and its impact on the action accomplished, taking into account the addressee's response. It is shown how certain formal features in the design of the interrogative, e.g. particles of opposition or the use of negation, work together with the sequential position of the interrogative, e.g. after a telling or an assessment, towards modifying its function from information-seeking to more disaffiliative actions (for the term disaffiliative see Lindström & Sorjonen 2013). Finally, it is discussed whether (and to what extent) the findings can be accounted for in terms of epistemic considerations, e.g. epistemic status vs. epistemic stance, which are taken to be crucial for the interpretation of an interrogative as requesting information or as doing something else (cf. e.g. Heritage 2013, Hayano 2013).

References

Bolden, G. & J. D. Robinson. 2011. Soliciting accounts with *why*-interrogatives in conversation. *Journal of Communication* 6(1): 94-119.

Egbert, M. & M. Vöge. 2008. *Wh*-interrogative formats used for questioning and beyond: German *warum* (why) and *wieso* (why) and English *why*. *Discourse Studies* 10(1): 17-36.

Hayano, K. 2013. Question design in conversation. In *The Handbook of Conversation Analysis*, J. Sidnell & T. Stivers (eds), 395-414. Malden: Wiley-Blackwell.

Heritage, J. 2013. Epistemics in conversation. In *The Handbook of Conversation Analysis*, J. Sidnell & T. Stivers (eds), 370-394. Malden: Wiley-Blackwell.

Koshik, I. 2005. *Beyond Rhetorical Questions: Assertive Questions in Everyday Interaction.* Amsterdam/Philadelphia: John Benjamins.

Lindström, A. & M.-L. Sorjonen. 2013. Affiliation in conversation. In *The Handbook of Conversation Analysis*, J. Sidnell & T. Stivers (eds), 350-369. Malden: Wiley-Blackwell.

Pavlidou, Th.-S. 2016. [in Greek] 'Why are you so late?' 'Why'-interrogatives in Greek talk-in-interaction. Paper presented at the Symposium on Questions-Answers in Greek Spoken Communication, Thessaloniki, Oct. 13-14, 2016.

Pavlidou, Th.-S. & E. Karafoti. 2015. [in Greek] The autonomous 'why' and its functions in Greek talk-in-interaction. In *Greek Language & Spoken Communication*, Th.-S. Pavlidou (ed.), 81-97. Thessaloniki: Institute of Modern Greek Studies.

Schegloff, E. 2007. *Sequence Organization in Conversation: A Primer in Conversation Analysis.* Cambridge: Cambridge University Press.

Sterponi, L. 2003. Account episodes in family discourse: The making of morality in everyday interaction. *Discourse Studies* 5(1): 79-100.

Stivers, T. & N. J. Enfield. 2010. A coding scheme for question-response sequences in conversation. *Journal of Pragmatics* 42: 2620-2626.