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TRUE, LIMINAL AND FAKE PROTOTYPES IN SYNTACTIC TYPOLOGY

1. Introduction[1]

During the last forty years, representations based on the prototype concept appeared for so many categories (cf. [6] for a brief survey of typological works) that it became clear that one needs "to investigate the phenomenon of prototypicality more thoroughly," since "the notion is far from straightforward" [27: 180-181] and the prototype category itself has a prototypical nature [25]. A natural reaction to the wide use of the concept was, for example, Wierzbicka's claims about the "abuse of prototype" as a "thought-saving device", which damps linguists from discovering real boundaries of categories [59: 347].

In this paper, we contrast between different kinds of morphosyntactic phenomena which at first glance manifest prototype-based categories. For some of them, we do indeed observe well-established nuclei called *true prototypes*. Some others are associated with *liminal prototypes*, which are likely to be illusive side effects of true prototypes. Still others turn out to be related to *fake prototypes,* which are only regarded as prototypes by mistake. We illustrate the three situations with relative clause constructions, serial verb constructions and the concept of subject. It is worth noting that this paper is just a brief outline of a more complex conception, and here we cannot go into many details.

The structure of this paper is as follows. In Section 2, we introduce assumptions and notions which constitute the background for further discussion. Sections 3, 4 and 5 describe true, liminal and fake prototypes respectively. The last section draws conclusions and presents our plans for future work.

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2. Assumptions and disclaimers

In general, morphosyntax may show various gradience effects, although we do not insist that this preclude language-specific categories to have sharp boundaries; cf. [1; 2]. In many cases, the gradience effects may be attributed to the diachrony [52]. As Traugott and Trousdale claim, "variation over time involves the emergence of grammatical constructions: a gradual, global process, but one which involves a series of discrete local micro-reanalysis" [57: 39].

However, any typological perspective should accumulate quite different constructions, and this may result in fuzziness of the borders of the phenomenon under discussion. In this case, the range of the data that is considered relevant may vary from one scholar to another. Despite this, determining what is considered relevant and what is not ideally should be theory-independent. The most prototypical instances of a category should be relevant irrespective of the views and hence they should be rooted in the linguistic reality rather than in metalinguistic systems (to the extent that they can be distinguished).

This contrasts such prototypes with canons as used in the Canonical Typology approach, see [8: 11–13] for discussion. The essential part of this approach is plotting deviations from an idealized canon, which is "the best, the clearest, the indisputable" specimen [12: 49]. Crucially, such canons are primarily intended to fit the logic of universal language-independent descriptive systems and are not required to be determined exclusively on the basis of linguistic data. Further, as Corbett puts it, "[g]iven that they have to match up to a logically determined standard, the canon is unlikely to be frequent. It is likely to be rare, and may even be non-existent" [12]. We will see that the situation with true prototypes is exactly the opposite, see also [8: 8].

For our purposes of providing a typologically-oriented account of gradience, we distinguish between several levels of abstraction.

At the lowest level, we have ***tokens***, by which we mean the occurrences of the relevant patterns (which can be syntactically complex) in the real texts. Take adnominal possessives for example. An example of a token of an adnominal possessive is *the occurrences of the relevant patterns* in the first sentence of this paragraph.

The next level includes ***constructions***, which are characterized by their own coding and behavioral properties. The sentences in the preceding paragraph only showed the adnominal possessive construction marked by the preposition *of*. English also has another adnominal possessive construction, namely the one marked with *'s*, and perhaps some others, depending on the domain of investigation. Constructions are language-specific. Below we will think of them as having sharp boundaries, even though sometimes this is disputable [52; 55; 56]. This should not affect our conclusions.

Finally, we will use the term ***domain*** for concepts that abstract away from specific constructions. This is exactly the scholar-dependent range of the relevant data. For example, we may speak of the domain of adnominal possessive constructions, which may include either just the relevant constructions of a given language or even (what is thought to represent) possessives in various languages in general. Alternatively, we may think of the domain as a set of contexts where the relevant constructions are used.

3. True syntactic prototypes: a story of relative clause constructions

While investigating the domain, sometimes we find certain contexts where the relevant grammatical patterns are felt to be especially salient. We hypothesize that this nucleus is characterized by the smallest variance of tokens, high productivity, various frequency-related effects (also described as effects related to unmarkedness and grammaticalization), compositional transparency and diachronic stability. These features may be taken as theory-independent manifestations of a true functional prototype of the domain.

Consider the domain of relative clause constructions (RCCs). As is well-known since Keenan & Comrie's classical paper [34], syntactic roles differ in their relativizability. In particular, relativization of subjects and direct objects (or absolutive and ergative arguments in ergative languages) illustrated in (1)-(2) is easier and more frequent than relativization of other arguments such as, for example, possessors (3).[1] We suspect, then, that the prototype of RCCs is associated with relativization of core arguments[2] (although this is clearly not the only component of this prototype).

(1) the man who made the world's first personal computer
(2) the girl whom you described as smart
(3) a grammarian whose book has been an important part of my life for the last eight years

It has been argued that the constructions serving syntactic prototypes are more grammaticalized [41]. This seems to hold for RCCs. Dedicated grammatical means such as participles and relative pronouns are typically associated with the

[1] The frequency of relativization of different roles is discussed, for instance, in [32; 51; 16; 23; 28] for various stages and registers of English (Indo-European), in [5] for Arabic (Afroasiatic), [15] for Archi and Udi (Northeast Caucasian). Reports of psycholinguistic experiments on the accessibility of different arguments for relativization can be found, for example, in [35].

[2] We deliberately do not discuss the issue of ranking of the core arguments, since this issue is by no means clear. For some discussion see [42: 211ff; 23; 45].

relativization of core arguments: for example, in Russian participles are only used for relativization of subjects. In addition, relativization of the core arguments is often accompanied by grammatical deranking, i.e. semantically non-expected grammatical restrictions [13: 203].

The notion of *compositional transparency* was introduced by David Dowty, who defined it as "the degree to which the compositional semantic interpretation of natural language is readily apparent (obvious, simple, easy to compute) from its syntactic structure" [18: 30]. As argued in [60; 41], (true) syntactic prototypes are the most compositionally transparent. In the domain of RCCs, we find that relativization of core arguments usually involves a means which makes it possible to unambiguously determine what argument is relativized, be it a case-marked relative pronoun (as in (1)-(3)), a specific participle or a gap. The picture may be different in other cases: sometimes the role of the relativized argument is understood exclusively due to the context or the lexical semantics of the elements of a construction. In the following example, the role of the relativized argument is determined by the lexical semantics of the head:

(4) the way he will come

Finally, syntactic prototypes are highly stable, and new constructions develop from non-prototypical contexts [10]. Not surprisingly, the oldest RCC patterns are often restricted to the relativization of the core arguments. In some Austronesian languages (e.g., Chamorro), the archaic highly-developed voice system retained only in RCCs, which originally could relativize only subjects, and in certain related structures such as questions (see [17] for details). The development of a new RCC from periphery towards the prototype is described for English, where the pattern involving wh-pronouns (illustrated in (1)-(3) above) appeared to be able to relativize subjects later than less relativizable arguments [51; 16].

There are many syntactic prototypes that can be determined in this way. For example, transitive constructions [31], passives [53], possessives [38; 41] all seem to have syntactic prototypes of this kind. Moreover, the prototype effects related to the distinction between nouns and verbs [14], and to the notions of word and clause are probably related to similar prototypes. Importantly, such prototypes seem to be theory-independent but as such they need careful empirical substantiation (cf. Martin Haspelmath's critics of prototype-based approaches to the concept of word [29: 64]).

4. Liminal syntactic prototypes: a story of serial verb constructions

Not all constructions have their own true prototypes, even if it is tempting to describe them using the same techniques. In this case, we can observe side effects of true prototypes: deviations from them may be accompanied by a mass extinction

of the relevant properties, and the absence of these properties may look like a prototype appropriate for a deviating phenomenon.

We illustrate this with the domain of Serial Verb Constructions (SVCs) exemplified below:

(5) Yoruba (Atlantic-Congo) [7: 529; after 46]
bola se dran ta
bola cooked meat sell
'Bola cooked some meat and sold it.'

SVCs are sometimes defined as verb sequences "which act together as a single predicate, without any overt marker of coordination, subordination, or syntactic dependency of any other sort" [4: 1]. There are also other definitions of SVC, which are generated from certain lists of properties; see, for instance, [49: 290; 50]. Yet all definitions of this kind are far from being satisfactory for all patterns of the domain; see discussion in [47]. For example, the constructions (6) are described as SVCs despite the fact that the imperfective particle *tá* affects the semantics of an expression depending on which verb it modifies. Strictly speaking, it does not seem to be the case that the two verbs in (6) "act as a single predicate".

(6) Saramaccan (English-Portuguese Creole) [50: 239]
a. a tá fáa páu túe
3SG IMPF chop tree throw
'He is felling a tree (he is engaged in the activity of chopping).'
b. a fáa páu tá túe
3SG chop tree IMPF throw
'He is felling a tree (the tree is falling).'

The absence of a strict definition of SVCs made Martin Haspelmath deny the very existence and cross-linguistic importance of this phenomenon [30]. However, one can also observe attempts to describe SVCs via some prototype. In [37: 229-230] we find the following list of the prototypical properties of SVCs:

(7) a. A prototypical SVC contains two or more morphologically independent verbs within the same clause, neither of which is an AUX.
b. There are no conjunctions or other overt markers of subordination or coordination separating the two verbs.
c. The serial verbs belong to a single intonation contour, with no pause separating them.
d. The entire SVC refers to a single (possibly complex) event.

e. A true SVC may contain only one specification for tense, aspect, modality, negation. etc., though these features are sometimes redundantly marked on both verbs.
f. The two verbs in the SVC share at least one semantic argument.
g. Obligatory non-coreference: a true SVC will not contain two overt NPs which refer to the same argument.
h. A prototypical SVC contains only one grammatical subject.

Unfortunately, such prototypes work much worse than true prototypes. The problem is that SVCs show too much diversity. Even if there exists any nucleus of the SVC domain, it seems to be characterized by too much variance. As Aikhenvald notes, "[c]ross-linguistically, and even within one language, SVCs occupy different places on the continuum, between one indissoluble event and a package of subevents all linked together" [4:12].

We hypothesize that the reason for the absence of a stable true SVC prototype is the instability of SVCs themselves. In fact, many constructions of this kind are regarded as illustrating the cross-linguistically recurrent development of certain verbs into certain grammatical elements [47]. Other SVCs tend to lexicalize and turn into non-compositional complexes [19; 4]. It may be not that useful to describe SVC with a prototype-based approach exactly because of this tendency of SVCs to turn into other patterns.

There are factors that favor this instability. One of them is the variation that is sometimes observed between speakers of a language in whether a serial pattern can be used in a given case. The possibility of constructing a SVC sometimes is too dependent on pragmatics. For example, in Alamblak the SVC is acceptable when it describes a conventionalized sequence of subevents (8a), but is not allowed for unexpected combinations, as in (8b), whose unacceptability is "not only because it is unusual for the two events to occur together, but because there is no apparent reason for their close association since stars are observable from the ground" [9: 29]. At the same time, if the link between the subevents is clear enough, as in (8c), the SVC becomes possible again.

(8) Alamblak (Sepik) [9: 29]
a. mɨyt ritm muh-hambray-an-m
tree insects climb-search.for-1SG-3PL
'I climbed the tree searching for insects.'
b. *mɨyt guñm muh-hëti-an-m
tree stars climb-see-1SG-3PL
?*'I climbed the tree seeing the stars.'

c. mɨyt guñm muh-hɨti- marña-an-m
tree stars climb-see-well-1SG-3PL
'I climbed the tree seeing the stars clearly.'

Basing on these examples, Bruce claims that "serialisation of roots in a verb stem is restricted to sequences of events which are commonly associated culturally or for which there is a cultural basis or pragmatic reason for their close association" [9: 30].

We may think that the SVC is just a transitional stage in the development of a combination of two clauses denoting two events towards the clausal prototype, which is presumably associated with reference to a single event. SVCs clearly deviate from the prototype of a clause, but they do not satisfy any prototype of a complex sentence either. Still, when deviations are no longer random and sporadic and begin to resemble a system, they may look similar to the prototypes.

While such patterns probably may be described as *mixed categories*, we prefer the treatment of SVCs as *liminal categories*. The latter notion ascends to the anthropological works by Arnold van Gennep [26] and Victor Turner [58] devoted to the characteristics of the ritual subject during the the "liminal phase" of *rites de passage* characterized by passing "through a cultural realm that has few or none of the attributes of the past or coming state" [58: 95]. Daniel Everett [20] proposed to use the term *liminal category* for entities that share properties of words and complex phrases and also presupposed a kind of diachronic instability, which is crucial for us. Yet in our perspective, the concept of liminal category may be broadened to unstable "frontier" phenomena characterized by deviations from prototypes in general. In this sense, we may think of liminal prototypes, which are unstable and do not govern any direction of diachronic processes but result from simultaneous deviations in multiple parameters.

Another possible liminal prototype is related to clitics. Several attempts have been made of formulating the set of criteria that should distinguish clitics from other affixes and autonomous words; see [63; 3; 54] for discussion. It seems, however, that any clitic prototype will be liminal, for it does not necessary determine the distribution of clitic tokens across the word-affix scale.

Note that liminal prototypes may make sense for a given language, but they do not necessarily have universal force. Cross-linguistically, for every syntactic phenomenon the stage of grammaticalization should be recognized first, and mostly stability and the rate of changes can help to allocate the construction core in a given language.

5. Fake syntactic prototypes: a story of subject

Fake prototypes are also based on some sets of properties. The main problem with these sets is that they easily allow distribution of correspondent properties across several candidates.

Perhaps the most well known fake prototype is related to a discussion of the notion of subject by Keenan, who proposed a number of features intended to point to the subject of the sentence [33]. These features were supposed to determine the degree of subjecthood of a given argument. Later this "multi-factor approach" was thought to present a prototypical subject, which should fit all the relevant features (cf., for instance, [6]). Bernard Comrie suggested that the prototype of subject is the intersection of agent and topic properties, but this prototype was mainly based on the same features [11].

Keenan's list of subject properties is too big to put it here, but just for readers innocent in these matters we copy a similar (yet smaller) list provided by Falk [21: 6], which at least makes clear the (sub)domains where the subject is discussed:

(9) Agent argument in the active voice
Most likely covert/empty argument
The addressee of an imperative
Anaphoric prominence
Switch-reference systems
Shared argument in coordinated clauses
Controlled argument (PRO)
Raising
Extraction properties
Obligatory element
"External" structural position
Definiteness or wide scope
Discourse topic

However, the features identified by Keenan and Falk by no means always work for subjects, even though they can point in this direction. One thing is that the lists such as (9) are obviously more oriented to syntactically accusative languages than to syntactically ergative languages: Keenan definitely presupposes that normally the most likely subject in transitive clauses is the most agentive one. There are clear problems with this, though.

Consider, for instance, the control of reflexives (mentioned in (9) as "anaphoric prominence"). According to Keenan, if there is a coreference relation between the subject and some other NP, it is the subject that should serve as the antecedent, which is why in English it is possible to say *John loves himself* but not **Himself*

loves John. Yet later it was argued that not (only) subjecthood but the relative agentivity may play a role in the choice of the antecedent in this case.

For example, in West Circassian and Kabardian, the ergative languages which constitute the Circassian branch of the Northwest Caucasian family, the antecedent of the reflexive is the most agentive argument. In transitive constructions, the antecedent is the ergative argument, but there are also patterns where the construction is intransitive but the indirect object controls the reflexive absolutive cross-reference prefix. Moreover, if both arguments show low agentivity, as with the intransitive verb 'be forgotten', the antecedent may be either the indirect object (the one who forgets) or the absolutive argument (the argument forgotten); cf. the following Kabardian examples (see also [44] for West Circassian data):

(10) Kuban Kabardian (Northwest Caucasian; Yury Lander's field notes)
a. sə-z-ŝə-ʁ^{w}əpŝe-ž'-a
1SG.ABS-RFL.IO-LOC-be.forgotten-RE-PST
b. zə-s-ŝə-ʁ^{w}əpŝe-ž'-a
RFL.ABS-1SG.IO-LOC-be.forgotten-RE-PST
'I forgot myself.'

These examples suggest that for Circassian languages, then, the reflexive binding should not be counted as a subject property even though it is clearly related to agentivity. Despite this, these languages do seem to privilege some arguments (usually absolutives, see [40; 43]), which probably can be described as subjects or at least as having subject properties.

In the neighboring Northeast Caucasian languages the picture is different. Here in transitive sentences both the ergative and the absolutive arguments sometimes can control the reflexive. Cf. the following examples:

(11) Tanti Dargwa (Northeast Caucasian; Yury Lander's field notes)

a.	musa-li	sa-j	ʕaˁlχ:-un-ne=sa-j
	Musa-ERG	RFL-M(ABS)	NEG+feed-PRS-CVB=COP-M
b.	musa	sun-ni	ʕaˁlχ:-un-ne=sa-j
	Musa(ABS)	RFL-ERG	NEG+feed-PRS-CVB=COP-M

'Musa does not feed himself.'

In (11a) the ergative NP appears to be the antecedent of the absolutive reflexive pronoun, which can be explained by its agentivity (or perhaps by its subjecthood). In (11b), however, the absolutive NP serves as the antecedent of the ergative reflexive, and this cannot be attributed to agentivity. It is not clear what makes possible the second construction. In particular, it is not obvious that this effect is related to subjecthood, rather some pragmatic considerations may be at work here

(see [36: 300-301; 48: 245ff; 24; 22] for discussion of similar examples). The only point is that the reflexive binding need not be related even to agentivity proper but it does not necessarily tells us about subjecthood either.

It is possible that the reflexive binding should be eliminated from the list of syntactic tests for subjecthood. Yet many other tests proposed by Keenan behave in the same way: they may distinguish different arguments in different constructions and contradict to each other. The reason is that although the idea of subject presupposes exceptional prominence of an argument in respect to various grammatical processes, such prominence may have different sources [36]. This diversity of subjecthood sources is sometimes reflected in the distribution of subject properties across the clause. Clearly, this is not related to deviations from any prototype and suggests that the prototypical subject is nothing but a fake.

Subject is not the only concept of this kind. The notion of syntactic head is sometimes understood in a similar way, i.e. through a set of properties which may be detected for different elements of the same construction (cf. [61; 62]). However, it is likely that there are two sources of the syntactic headedness effects, namely the relevance and the compositional obligatoriness [39]. For example, within an NP the (true) determiner is compositionally obligatory, while the noun bears the most relevant information, and hence both of them may have head properties. The criteria used for heads, therefore, need not single out any prototypical head, for there are no special reasons for them to point to the same element.

6. Conclusion

Not everything that is fuzzy is prototyping. Indeed, in this paper we have argued that the categories analyzed through prototype-based approaches may be of different natures. In fact, some of them are wrongly thought to have a prototypically-oriented structure: the prototypes postulated for them are more epistemological phenomena, which, however, may help the linguists to differentiate these categories from others. At the same time, true prototypes appear to be ontological phenomena which reflect the characteristics of linguistic objects. We suspect that studying of true prototypes may help to identify patterns of language change.

As a kind of development of this idea, we are thinking of a model that would plot true prototypes characterized by the maximal probability of the appearance of a token belonging to the domain under discussion. Importantly, this model should consider different diachronic sections in order to define the stage of grammaticalization of different constructions, revealing the categories with the distinguishable core.

Abbreviations

ABS — absolutive; COP — copula; CVB — converb; ERG — ergative; IMPF — imperfective; IO — indirect object; LOC — locative preverb; M — masculine; NEG — negation; PL — plural; PRS — present tense; PST — past; RE refactive/reversive; RFL — reflexive; SG — singular.

References

1. Aarts, B. Modelling linguistic gradience. *Studies in language* 28 (2004): 1-49.
2. Aarts, B. *Syntactic Gradience: the Nature of Grammatical Indeterminacy*. Oxford: Oxford University Press, 2007.
3. Aikhenvald, A. Y. Typological parameters for the study of clitics, with special reference to Tariana. In: *Word: a Cross-linguistic Typology*, ed. by R. M. W. Dixon and A. Y. Aikhenvald. Cambridge: Cambridge University Press, 2003, pp. 42-78.
4. Aikhenvald, A. Y. Serial verb constructions in typological perspective. In: *Serial Verb Constructions: a Cross-linguistic Typology*, ed. by A. Y. Aikhenvald and R. M. W. Dixon. Oxford: Oxford University Press, 2006, pp. 1-68.
5. Al-Zaghir, Z. M. Relativization and accessibility: A corpus analysis of relative clauses in Arabic written text. Ph.D. diss., University of Otago, Dunedin, 2013.
6. van der Auwera, J. and G. Volker. Categories and prototypes. In: *The Oxford Handbook of Language Typology*, ed. by J. J. Song. Oxford: Oxford University Press, 2011, pp. 166-189.
7. Baker, M. C. Object sharing and projection in serial verb constructions. *Linguistic Inquiry* 20 (1989): 513-553.
8. Brown, D. and M. Chumakina. What there might be and what there is: an introduction to Canonical Typology. In: *Canonical Morphology and Syntax*, ed. D. Brown et al. Oxford: Oxford University Press, 2012, pp. 1-19.
9. Bruce, L. Serialization: From syntax to lexicon. *Studies in Language* 12 (1988): 19-49.
10. Company Company, C. Grammaticalization and category weakness. In: *New Reflections on Grammaticalization*, ed. by I. Wischer and G. Diewald. Amsterdam: John Benjamins, 2002, pp. 201-215.
11. Comrie, B. *Language Universals and Linguistic Typology*. Oxford: Basil Blackwell, 1981.
12. Corbett, G. G. Canonical morphosyntactic features. In: *Canonical Morphology and Syntax*, ed. D. Brown et al. Oxford: Oxford University Press, 2012, pp. 48-65.
13. Cristofaro, S. *Subordination*. Oxford: Oxford University Press, 2003.
14. Croft, W. *Syntactic Categories and Grammatical Relations: the Cognitive Organization of Information*. Chicago: The University of Chicago Press, 1991.

15. Daniel, M. and Yu. Lander. Neravnopravie rolej v otnositel'nyx konstrukcijax: materialy po častotnosti reljativizacii v arčinskom i udinskom jazykax. *Semantika jazykovyx edinic raznyx urovnej*. Vyp. 15. Makhachkala: DGU, 2013, pp. 59-78.
16. Dekeyser, X. Relativizers in early modern English: a dynamic quantitative study. In: *Historical Syntax*, ed. by J. Fisiak. Berlin: Mouton de Gruyter, 1984, pp. 61-87.
17. Donohue, M. and A. Maclachlan. What agreement in Chamorro? *Proceedings of AFLA VI. Toronto Working Papers in Linguistics*. Vol. 16, No. 2 (1999): 121-132.
18. Dowty, D. Compositionality as an empirical problem. In: *Direct Compositionality*, ed. by Ch. Barker and P. Jacobson. Oxford: Oxford University Press, 2007, pp. 23-101.
19. Durie, M. Grammatical structures in verb serialization. In: *Complex Predicates*, ed. by A. Alsina et al. Stanford: CSLI Publ., 1997, pp. 289-354.
20. Everett, D. Liminal constructions. Unpublished ms., 2003. (Available online at http://ling.auf.net/lingbuzz/001369, Accessed on 2015-11-22.)
21. Falk, Y. N. *Subjects and Universal Grammar: An Explanatory Theory*. Cambridge: Cambridge University Press, 2006.
22. Forker, D. Are there subject anaphors? *Linguistic Typology* 18 (2014): 51-81.
23. Fox, B. A. The noun phrase accessibility hierarchy revisited. *Language* 63 (1987): 856-870.
24. Ganenkov, D., N. Bogomolova and D. Forker. (Quirky) reflexive constructions in Daghestanian languages. Paper presented at the 46th Annual Meeting of Societas Linguistica Europaea, Split, September 2013.
25. Geeraerts, D. Introduction: Prospects and problems of prototype theory. *Linguistics* 27 (1989): 587-612.
26. van Gennep, A. *Les rites de passage*. Paris: Emile Nourry, 1909.
27. Gilquin, G. The place of prototypicality in corpus linguistics: Causation in the hot seat. In: *Corpora in Cognitive Linguistics: Corpus Based Approaches to Syntax and Lexis*, ed. by S. Gries and A. Stefanowitsch. Berlin: Mouton de Gruyter, 2006, pp. 159-192.
28. Gordon, P. and R. Hendrick. Relativization, ergativity, and corpus frequency. *Linguistic Inquiry* 36 (2005): 456-463.
29. Haspelmath, M. The indeterminacy of word segmentation and the nature of morphology and syntax. *Folia Linguistica* 45 (2011): 31-80.
30. Haspelmath, M. The serial verb construction: Comparative concept and cross-linguistic generalizations. Unpublished ms., 2015. (Available online at https://www.academia.edu/10652772, Accessed on 2015-11-22.)
31. Hopper, P. J. and S. A. Thompson. Transitivity in grammar and discourse. *Language* 56 (1980): 251-299.

32. Keenan, E. L. Variation in Universal Grammar. In: *Analyzing Variation in Language*, ed. by R. Fasold and R. Shuy. Washington: Georgetown University Press, 1975, pp. 138-148.
33. Keenan, E. L. Towards a universal definition of 'Subject'. In: *Subject and Topic*, ed. by Charles N. Li. New York: Academic Press, 1976, pp. 303-333.
34. Keenan, E. L. and B. Comrie. Noun Phrase accessibility and Universal Grammar. *Linguistic Inquiry* 8 (1977): 63-99.
35. Keenan, E. L. and J. Hawkins. The psychological validity of the accessibility hierarchy. In: E. L. Keenan, *Universal Grammar*. New Hampshire: Croom Helm, 1987, pp. 60-85.
36. Kibrik, A. E. Beyond subject and object: Toward a comprehensive syntactic typology. *Linguistic Typology* 1 (1997): 279-346.
37. Kroeger, P. *Analyzing Syntax: a Lexical-Functional Approach*. Cambridge: Cambridge University Press, 2004.
38. Lander, Yu. Varieties of Genitive. In: *The Oxford Handbook of Case,* ed. by Malchukov A. and A. Spencer. Oxford: Oxford University Press, 2008, pp. 581-592.
39. Lander, Yu. Western Indonesian prenominal modifiers and compositional obligatoriness. In: *VIII Meždunarodnaja konferencija po jazykam Dal'nego Vostoka, Jugo-Vostočnoj Azii i Zapadnoj Afriki (Moskva, 22–24 sentjabrja 2009 g.): tezisy i doklady*, ed. by V. B. Kasevich et al. Moscow: Kluch–C, 2009, pp. 242-257.
40. Lander, Yu. Subject properties of the Adyghe absolutive: evidence from relatives. Unpublished ms., 2010. (Available online at https://www.academia.edu/340643, Accessed on 2015–11–23 and http://www.hse.ru/data/2014/02/28/1329602538/09-AdygheAbsolutives.pdf, Accessed on 2015-11-22)
41. Lander, Yu. On how compositionality relates to syntactic prototypes and grammaticalization. In: *Donum semanticum: Opera linguistica et logica in honorem Barbarae Partee a discipulis amicisque Rossicis oblate,* ed. by P. Arkadiev et al. Moscow: LRC Publishers, 2015, pp. 148-157.
42. Lehmann, Chr. *Der Relativsatz. Typologie seiner Strukturen, Theorie seiner Funktionen, Kompendium seiner Grammatik*. Tübingen: Gunter Narr, 1984.
43. Letuchiy, A. Ergativity in the Adyghe system of valency-changing derivations. In: *Ergativity, Valency and Voice,* ed. by G. Authier and K. Haude. Berlin: Mouton de Gruyter, 2012, pp. 323-354.
44. Letuchiy, A. Verb classes in Adyghe: Derivational vs. nonderivational criteria. *Linguistics* 51 (2013): 729-766.

45. Liao, H.–C. The Noun Phrase Accessibility Hierarchy revisited: A view from ergative languages. *University of Hawai'i Working Papers in Linguistics* 31 (2000): 121-142.
46. Lord, C. Causative constructions in Yoruba. *Studies in African Linguistics (Supplement)* 5 (1974): 195-204.
47. Lord, C. *Historical change in serial verb constructions*. Amsterdam: John Benjamins, 1993.
48. Lyutikova, E. A. Reflexives and emphasis in Tsaxur (Nakh-Dagestanian). In: *Reflexives: Forms and Functions*, ed. by Z. Frajzyngier and T. S. Curl. Amsterdam: John Benjamins, 1999, pp. 227-255.
49. Muysken, P. and T. Veenstra. Serial verbs. In: *Pidgins and Creoles: An Introduction,* ed. by J. Arends et al. Amsterdam: John Benjamins, 1995, pp. 289-301.
50. Muysken, P. and T. Veenstra. Serial verbs. In: *The Blackwell Companion to Syntax*, ed. by M. Everaert and H. van Riemsdijk. Vol. IV. Malden: Blackwell, 2006, pp. 234-270.
51. Romaine, S. The relative clause marker in Scots English: Diffusion, complexity, and style as dimensions of syntactic change. *Language in Society* 9 (1980): 221-247.
52. Rosenbach, A. How synchronic gradience makes sense in the light of language change (and *vice versa*). In: *Gradience, Gradualness, and Grammaticalization*, ed. by E. C. Traugott and G. Trousdale. Amsterdam: John Benjamins, 2010, pp. 149-179.
53. Shibatani, M. Passives and Related Constructions: A Prototype Analysis. *Language* 61 (1985): 821-848.
54. Spencer, A. and A. Luís. The canonical clitic. In: *Canonical Morphology and Syntax*, ed. by D. Brown et al. Oxford: Oxford University Press, 2012, pp. 123-150.
55. Taylor, J. R. *Linguistic Categorization: Prototypes in Linguistic Theory*. 2nd edition. Oxford: Clarendon Press, 1995.
56. Taylor, J. R. Syntactic constructions as prototype categories. In: *The New Psychology of Language: Cognitive and Functional Approaches to Language Structure,* ed. by M. Tomasello. Mahwah: Laurence Erlbaum Associates, 1998, pp. 177-202.
57. Traugott. E. C. and G. Trousdale. Gradience, gradualness and grammaticalization: How do they intersect? In: *Gradience, Gradualness, and Grammaticalization*, ed. by E. C. Traugott and G. Trousdale. Amsterdam: John Benjamins, 2010, pp. 19-44.
58. Turner, V. *The Ritual Process: Structure and Anti-Structure*. New Brunswick: Transaction Publishers, 1995.

59. Wierzbicka, A. 'Prototypes save': on the uses and abuses of the notion of 'prototype' in linguistics and related fields. In: *Meanings and Prototypes. Studies in Linguistic Categorization,* ed. by S. L. Tsohadzidis. London: Routledge, 1990, pp. 347-367.
60. Winters, M. E. Toward a theory of syntactic prototypes. In: *Meanings and Prototypes. Studies in linguistic Categorization,* ed. by S. L. Tsohadzidis. London: Routledge, 1990, pp. 285-306.
61. Zwicky, A. M. Heads. *Journal of Linguistics* 21 (1985): 1-30.
62. Zwicky, A. M. Heads, bases and functors. In: *Heads in Grammatical Theory*, ed. by G. G. Corbett et al. Cambridge: Cambridge University Press, 1993, pp. 292-315.
63. Zwicky, A. M. and G. Pullum. Cliticization vs. inflection: English *n't*. *Language* 59 (1983): 502-513.