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This is a contribution from *Transitivity: Form, Meaning, Acquisition, and Processing*.

Edited by Patrick Brandt and Marco García García.

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Lability and spontaneity

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The present paper focuses on labile verbs – lexemes which can behave transitively or intransitively without a formal change. Haspelmath (1993a) and Comrie (2006) claim that the semantic spontaneity is the crucial factor for the distribution of inchoative/causative alternations, based on data of the causative and the anticausative formal types. In contrast, my analysis of labile verbs across languages shows that for lability, another factor is crucial, namely, the semantic classification of verbs. In particular, the groups as motion verbs, destruction verbs, and phasal verbs tend to be labile across languages.

1. Introduction

In the present paper, I discuss the cross-linguistic distribution of labile verbs – lexemes which can behave transitively or intransitively without any formal change:

- (1) a. *John is boiling water* (transitive use).
- b. *The water is boiling* (intransitive use).

Though this formal type of verbs has been mentioned and described both in descriptive research (e.g. Bokarev 1949; Gišev 1968; Rothemberg 1974) and in typological work by Nedjalkov (1969), Haspelmath (1993b), Ljutikova (2002), and Dixon (1980), it has rarely been the subject of specialized typological research. Labile verbs, along with causatives, anticausatives, suppletion and equipollent oppositions (see below) constitute one of the formal types of transitivity alternation introduced by Nedjalkov (1969) and Haspelmath (1993a).

In modern typology, syntactic transitivity is supposed to be related to verb semantics and to express asymmetric relations at the semantic level (cf. the relation between the agent and the patient in Hopper & Thompson 1980). This semantically-based analysis of transitivity types and oppositions can be divided into two broad approaches.

1. The first of them can be called ‘lexical transitivity’. In this line of research, the semantic grounds of lexical (in)transitivity of particular lexemes is analyzed.

Hopper and Thompson (1980) show that the fact that some verbs are transitive whereas others are intransitive results from their semantic properties. For instance, according to Hopper and Thompson (1980), although both the verb *see* (*a child*) and the verb *beat* (*a man*) are syntactically transitive, the degree of their semantic transitivity differs. The situation ‘beat a man’ is semantically more transitive than ‘see a child’, because the former, but not the latter, includes a patient that is affected by the situation, and situations with a patient object are considered to be semantically more transitive than situations with an object-stimulus.

2. In the second line of research, formal types of transitivity alternations (i.e. formal relations between the transitive and the intransitive variants of the same situation) are analyzed. The starting point for this approach is Nedjalkov’s influential work (Nedjalkov 1969): the author shows that the pairs of the type ‘break/be broken’, where the transitive verb is semantically a causative of the intransitive verb, can be divided into five formal types, depending on which situation is designated with the base verb. These types are *anticausative* (the intransitive verb is formally more marked than the transitive one, see (2)); *causative* (the transitive verb is formally more marked than the intransitive one, see (3)); *equipollent* (both members of the pair are marked morphologically, see (4)); *suppletive* (the transitive and the intransitive members have different roots, see (5)) and *labile* (the same verb can be used as transitive or intransitive without any formal change, see (6)):

- (2) Russian (Slavic): *razbit* ‘break’ (transitive verb) ~ *razbit’-sja* ‘break’ (intransitive verb).
- (3) Adygehe (West Caucasian): *K_wen* ‘go’ (intransitive verb) ~ *be-K_wen* ‘lead, make go’ (transitive causative verb).
- (4) Tiriyo (Cariban): *karauta* ‘make angry’ ~ *karauma* ‘get angry’ (Meira 1999).
- (5) Russian: *umeret* ‘die’/ *ubit* ‘kill’.
- (6) Tunisian Arabic: *zed* ‘increase’ (transitive/intransitive).

In the second line of research (see Nedjalkov 1969, and also Haspelmath 1993a and Ljutikova 2002), following the same approach, the authors do not pose the question why a particular lexeme is transitive or intransitive. The key question is why a particular pair of situations (e.g. ‘break/be broken’ or ‘die/kill’) is expressed with a particular formal type of pair.

Moreover, this second line of research mainly builds on data of the causative and anticausative type, which are by far the most frequent types cross-linguistically. Nedjalkov (1969) proposes that the crucial factor for the distribution of these two types is the parameter of *spontaneity*. Some events, states and processes, such as

melting or drying, tend to take place spontaneously, that is, without an external agent or force. In contrast, some other situations, for instance, breaking or spilling, are usually caused by an external agent. According to Nedjalkov (1969), the more spontaneous the given situation, the more probable its expression with the causative subtype where the intransitive verb is basic. Situations with low spontaneity, in contrast, tend to be expressed with the anticausative subtype; the transitive verb is basic as the transitive non-spontaneous event is more prototypical for this sort of situations. Based on Nedjalkov's results, Haspelmath (1993a: 104) puts forward what I call the "spontaneity scale", reproduced below in the form of a list of situations, which are ordered according to their degree of spontaneity. The initial position is occupied by the pair of situations 'boil (transitive)'/ 'boil (intransitive)', whereas the position at the end is occupied by 'split (transitive)'/ 'split (intransitive)'. The scale includes 30 situations and the pair 'die/kill', which is placed separately.^{1,2}

- | | |
|-------------------|-------------------|
| 1. boil | 16. begin |
| 2. freeze | 17. spread |
| 3. dry | 18. roll |
| 4. wake up | 19. develop |
| 5. go out/put out | 20. get lost/lose |
| 6. sink | 21. rise/raise |
| 7. learn/teach | 22. improve |
| 8. melt | 23. rock |
| 9. stop | 24. connect |
| 10. turn | 25. change |
| 11. dissolve | 26. gather |
| 12. burn | 27. open |
| 13. destroy | 28. break |
| 14. fill | 29. close |
| 15. finish | 30. split |
| | die/kill |

1. The pair 'die/kill' has been discussed in linguistics for a long time, and is considered to be unique among all transitive/intransitive pairs. For instance, according to Haspelmath (1993a), in many languages it is expressed with suppletive oppositions (cf. the English pair, as well as Russian 'umeret' 'die'/'ubit' 'kill'). It is not very relevant for Haspelmath's research, though, as it is rarely coded with causative or anticausative oppositions.

2. Note that the numeration of situations in my list does not correspond to the numeration they get in Haspelmath (1993a: 104).

The scale is organized as follows. Haspelmath proposes that each situation under analysis has two semantic variants: spontaneous (not including any external force or an agent which brings about the resulting state of affairs, for instance, *The water is boiling*) and non-spontaneous (presupposing participation of an agent, e.g. *John is boiling the water*) The beginning of the scale contains situations which prototypically take place spontaneously. The closer a situation is to the end of the scale, the more prototypical is its non-spontaneous emergence (i.e. the variant of the situation which includes an external agent). The statistical measure of spontaneity is the ratio between the number of anticausatives and causatives, summing up all languages of the sample: the smaller it is, the more spontaneous is the situation (if the ratio is small, this means that the intransitive variant of the situation is usually morphologically basic, and the transitive variant is derived by causativization). For instance, 'boil' is the first in Haspelmath's (1993a: 104) table and in our list, since the ratio between anticausatives and causatives is the smallest one for the corresponding situation.

The situation denoted by the verb 'boil', which is on the 'spontaneous' extreme of the scale, prototypically takes place spontaneously. In contrast, breakings tend to occur non-spontaneously: usually an object breaks because of some actions conducted by the agent or caused by an external force.

The question why a particular verb is or is not labile is mostly neglected in the abovementioned research. However, this question is particularly interesting for a typologist. If we compare classes of labile verbs in several languages – even if they belong to the same genetic group – we see that these classes often do not coincide or even intersect. For instance, in Russian we observe lability of some motion verbs (*katit'* 'roll (transitive)/drive (intransitive)', *kružit'* 'move around (transitive/intransitive)'), whereas in another Slavic language, Bulgarian, this class of verbs is not characterized by lability – in contrast, phasal verbs which are strictly transitive in Russian are labile in Bulgarian (*započna* 'begin (transitive/intransitive)', *prodolžavam* 'continue (transitive/intransitive)').

Therefore, in order to account for these differences across languages, I need to elaborate a semantic classification of verbs which can explain this complicated distribution of lability among semantic classes.

In the present paper I will try to apply a single logic to account for the cross-linguistic distribution of labile verbs. The principal goal is to find out whether the spontaneity feature explains the distribution of labile verbs across languages. In what follows, I will show that what is crucial in this case is not the parameter of spontaneity.

The paper is organized as follows. In Section 2, I sketch the definition and some particularities of the labile type. In Section 3, I show that the spontaneity

parameter is not illustrative for labile verbs. In Section 4, another semantic feature is proposed as the main factor for the distribution of labile verbs. In Section 5, I try to account for the differences between the labile type and the causative and the anticausative types.

2. Labile verbs

Labile verbs have a long history in linguistic research: they have been analyzed as early as Chicobava (1942) and Jakovlev and Ašhamaf (1941). However, their cross-linguistic distribution has not been a subject of separate research.

Dixon (1980) and Kibrik et al. (2000) divide the class of labile verbs into two subclasses: A-labile and P-labile verbs. A-labile verbs (e.g. *eat*) have two uses, one of them transitive, the other one intransitive. Both uses are agentive (in other words, the agent is retained in both uses). The patient of the transitive use is eliminated in the intransitive use:

- (7) a. *John eats meat.*
 b. *John eats.*

In contrast, P-lability presupposes that both uses have a patient, whereas the agent is present only in the transitive use:

- (8) a. *John broke the cup.*
 b. *The cup broke.*

Kazenin (1994) showed that P-lability and A-lability characterizes different semantic groups of verbs. However, this issue is beyond the scope of the present paper. I will consider only P-labile verbs, just as Haspelmath (1993a) and Ljutikova (2002) have chosen to do. In Letuchiy (2006) I argued that A-labile verbs are not semantically labile, because the patient is semantically obligatory both in the transitive and the intransitive use: for instance, the sentence *John eats* entails that 'there is something that John eats, though its precise features are irrelevant for the speaker'. In contrast, most P-labile verbs are semantically labile. However, P-labile verbs like *cook* are not semantically labile: the sentence *The soup is cooking* usually means that there is somebody (an agent) who is cooking the soup. Thus, I decided to propose a semantic criterion for lability. In Letuchiy (2009) I propose that the crucial criterion of canonical lability is subject properties. I call 'canonically labile' verbs which have semantically different subjects in the transitive and the intransitive use (either the transitive subject is an agent, and the intransitive one a patient, as with verbs like *break* or the subject of the intransitive use is co-referent with the object,

as with verbs like *wash* which are reflexively labile). A-labile verbs are not labile in this sense because the variation does not affect the subject, the syntactically most privileged argument of the verb.

Let us say a few words about the typological distribution of labile verbs. They have mostly been observed in Caucasian languages and in some European languages, such as English and French. In fact, almost all linguistic regions have languages with large classes of labile verbs. According to Nichols et al. (2004), lability is widespread in Africa and Oceania, and a bit more rare in the Americas, though some languages, such as Olutec (Mixe, Mexico, Zavala 2000), Trumai (isolate, Brasil, Guirardello 1999) and Warekena (Arawak, Brazil, Aikhenvald 1998) have large groups of labile verbs:

- Olutec (Mixe-Zoque, Mixe; Zavala 2000: 78)
- (9) a. $\emptyset=jik-pa$ *seme tuk.*
 3.ABS=become_dirty-INCOMPL very one³
 ‘One gets very dirty.’
- b. $?i=jik-pe$ *kay+an.*
 3.ERG=make_dirty-INCOMPL food
 ‘He is making food dirty.’

In African languages, the most widespread type of lability is “passive lability” (see Letuchiy 2006). The intransitive use of a labile verb does not signal reference to a spontaneous situation, the agent is present in the semantics of the situation. However, in the intransitive use (“be buried (by somebody)”) the agent cannot be expressed, or is expressed with an oblique NP:

- Kabylie (Berber, Chaker 1983: 294)
- (10) a. *mDl-n t ukSar.*
 bury-3PL.M him down
 ‘They buried him below.’

3. Abbreviations:

1, 2, 3	1st, 2nd, 3rd person	O	object
ABS	absolutive	PL	plural
COMPL	completive	REMOTE	remote past
ERG	ergative	S	subject
INCOMPL	incompletive	SG	singular
IRREAL	irrealis	TR	transitive verb
M	masculine		

- b. *Ugi-n ad y-mDl ukSar.*
 refuse-3PL.M IRREAL 3SG-bury down
 ‘They did not want him to be buried below.’

Below I will not consider this type of lability.

3. Labile verbs and spontaneity

In what follows, I will analyze two alternative approaches to the distribution of labile verbs. Let me make a small remark concerning the data. I use the statistical data borrowed from Haspelmath (1993a). However, Haspelmath’s data is not typologically balanced: for instance, he does not include data of any Amerindian languages. I add to his sample data of Maltese (Semitic) (see also Comrie 2006), Awa Pit (Barbacoan, Curnow 1997), Warihio (Uto-Aztecan, Armendáriz 2005), Olutec (Mixean, Zavala 2000); Adyghe (West Caucasian, author’s field data) and Agul (Nakh-Daghestanian, Daniel et al. in press).

As I have already said, Nedjalkov (1969) and Haspelmath (1993a) noted the existence of the labile type. However, when they propose spontaneity as the crucial semantic factor for the distribution of the five formal types, they demonstrate its validity only for the anticausative and the causative type. Even in Ljutikova (2002), with a particular focus on labile verbs, the applicability of the spontaneity parameter to labile verbs is not statistically tested.

As said earlier, Haspelmath was the one to propose the spontaneity scale. He shows that in the “spontaneous” half of the scale, the proportion of causatives is, indeed, much higher than in the “non-spontaneous” one.

I try to apply the same method to labile verbs. I use Haspelmath’s sample in order to make the results for (anti)causatives and for labile verbs comparable to each other. If spontaneity were also the crucial factor for the distribution of labile verbs, then a particular stretch of the scale should include much more labile verbs than any other part. However, this is not the case.

In 3.1 I list the situations that are most often depicted by use of labile verbs and their place on the spontaneity scale.

3.1 Peaks of lability (situations frequently denoted by labile verbs)

By the term ‘peaks of lability’ I mean pairs of situations from Haspelmath’s scale which are most frequently denoted by labile verbs across languages, counting all languages from the sample. Below I list these situations, accompanied by their

positions on the spontaneity scale in brackets (numbers before the names of situations denote their place by the quantity of labile verbs):

1. 'begin' (16) – 8 labile verbs
2. 'boil' (1) – 6 labile verbs
3. 'burn' (10) – 5 labile verbs
- 4–6. 'freeze' (2), 'change' (25), finish (15) – 4 labile verbs
- ...
- 30–31. 'rise/raise' (20) and 'get lost/lose' (21) – 0 labile verbs

As the numbers show, these situations do not occupy a continuous stretch of the scale: 'boil' and 'freeze' are the most spontaneous; 'begin' and 'finish' are in the middle of the scale; 'burn' is rather spontaneous, but much less spontaneous than 'boil' and 'freeze' (anticausatives occur for 'boil' more often than causatives); finally, 'change' is definitely non-spontaneous.

The same tendency holds for situations which are never or almost never coded with labile verbs in Haspelmath's sample. Though the two situations which are never designated by labile verbs ('rise/raise' and 'get lost/lose') occupy a continuous part of the scale, situations which are designated by labile verbs in *one* language also occur in the spontaneous zone ('dissolve' (11), 'destroy' (13)).

3.2 Average numbers of labile lexemes in the spontaneous and the non-spontaneous zone

Let us now analyze average numbers of labile lexemes in the spontaneous and the non-spontaneous parts of the scale. Of course, if lability is closely related to the spontaneity feature, then we expect that the number of labile verbs should significantly differ in these two parts.

Table 1. Lability of spontaneous and non-spontaneous verbs

Verb class	Average number of labile verbs
Spontaneous	2,93 (15 verbs, 44 labile lexemes)
Non-spontaneous	2,33 (15 verbs, 35 labile lexemes)

This distinction is not at all significant. Bearing in mind that the number of labile lexemes for a situation varies from 0 to 8, there does not seem to be a big difference among the two verb classes.

However, the spontaneity approach gives its results for individual languages. Consider the data of languages with more than one labile verb. As I have said above, I added to Haspelmath's sample the following languages: Maltese (Semitic) (see also Comrie 2006); Awa Pit (Barbacoan, Curnow 1997), Warihio (Uto-Aztecan,

Armendáriz 2005); Olutec (Mixean, Zavala 2000); Adyghe (West Caucasian); Agul (Nakh-Daghestanian, Daniel et al. in press). This enlargement of the data seems to be necessary since Haspelmath generally does not take into account any language of America. The names of languages that do not belong to Haspelmath's sample are written in italics.

Table 2. Labile verbs in the two parts of the spontaneity scale (languages with more than one labile verb in Haspelmath's sample)

Language	Number of labile verbs (1–15)	Number of labile verbs (16–30)	Ratio
<i>Maltese</i> (Comrie 2006)	0	2	0
<i>Warihio</i>	0	4	0
<i>Adyghe</i>	1	3	0,33
<i>Olutec</i>	2	4	0,5
English	12	13	0,92
Hindi	1	1	1
Lezgian	2	2	1
<i>Agul</i>	4	4	1
Awa Pit ⁴	2	2	1
German	6	4	1,5
French	5	3	1,67
Greek	12	7	1,7
Romanian	2	1	2
Udmurt	2	1	2

In the fourth column I give the ratio, which is the number of labile verbs in the 'spontaneous' ('causative') part of the scale divided by the number of labile verbs in the 'non-spontaneous' ('anticausative') part.

There are five languages (French, German, Greek, Romanian and Udmurt) where labile verbs are mainly concentrated in the spontaneous zone. In contrast, in Maltese, Warihio, Adyghe and Olutec they characterize primarily non-spontaneous verbs. This distribution is illustrative for the cross-linguistic study of lability, as it shows that lability correlates with another opposition: namely, the distinction between transitivizing and detransitivizing languages. In a sense, this distinction compensates for the absence of transitivizing or detransitivizing mechanisms in a language. Let me return to the opposition between transitivizing and

4. For Awa Pit, I do count the verb *ii kul-* 'be warm/keep warm' which is not included by Haspelmath (1993a), but is of the same semantic class as 'freeze'. The data of all languages except those which I have added, and Maltese, which is added by Comrie (2006), is from Haspelmath (1993a).

detransitivizing languages briefly. Nichols et al. (2004) show that the languages of the world can be divided into transitivity-increasing and detransitivizing ones. In the former (for instance, in most Caucasian languages), valency increase is primarily grammatically marked, whereas the latter (Indo-European languages) mainly mark valency decrease. Table 2 shows that all languages with labiality in the spontaneous zone are detransitivizing (they do not have productive grammatical means of transitivity-increase, i.e. a grammatical causative marker). Conversely, all languages with labiality in the non-spontaneous zone are transitivity-increasing. This means that labiality plays the role of a compensatory mechanism: languages which do not have any grammatical markers of transitivity increase the use of labiality in the zone where transitivity increase is prototypically marked (see Section 2 on the distribution of the causative and the anticausative type of opposition).

Of course, labiality does not fully compensate for the absence of causative or anticausative markers: in neither of the languages listed in Table 2 does it occupy the whole (anti)causative part. Moreover, labiality is not only a compensatory mechanism: for instance, in Agul – a transitivity-increasing language – labiality characterizes both parts of the scale though it is seemingly “useless” in the spontaneous part (it does not compensate for the absence of a valency – changing derivation since Agul has also a causative). However, the tendency exists, which lets us regard labiality as a compensatory mechanism. When a language has a causative marker, labiality characterizes the anticausative zone, and vice versa. This results in the fact that labiality can characterize any part of the scale, depending on the grammatical system.

Thus, the spontaneity parameter can be statistically significant. However, this does not explain why even in individual languages labile verbs do not occupy a continuous stretch on the scale. Examples like German, Ava Pit and Lezgian lead us to propose that labiality is not regulated by the spontaneity parameter. This will be shown in the next section.

3.3 Labiality in individual languages

I have shown that spontaneity cannot be seen as a crucial factor of the cross-linguistic distribution of labiality. Moreover, it cannot be used to explain the semantics and the distribution of labile verbs in individual languages. Consider, for instance, the German data (the numbers here and below correspond to the places on the scale that are occupied by the corresponding situations):

1. *kochen* ‘boil’
2. *einfrieren* ‘freeze’
3. *trocknen* ‘dry’
8. *schmelzen* ‘melt’
9. *anhalten* ‘stop’

12. *verbrennen* 'burn'
16. *anfangen* 'begin'
18. *rollen* 'roll'
23. *schaukeln* 'rock'
28. *brechen* 'break'

Verbs coding spontaneous situations tend to be labile. However, even through German is a detransitivizing language (see 3.1), the labile lexemes do not form a continuous stretch: the 10 verbs are scattered from the first situation (*kochen*) to the 28th one (*brechen*).

The same is true for many other languages of the sample, for instance, Lezgian and French:

Lezgian:

1. *yugun* 'boil'
12. *kun* 'burn'
28. *xun* 'break'
30. *xun* 'split'
31. *q'in* 'kill'

French:

2. *geler* 'freeze'
3. *sécher* 'dry'
7. *apprendre* 'teach'
12. *brûler* 'burn'
15. *finir* 'finish'
16. *commencer* 'begin'
18. *rouler* 'roll'
25. *changer* 'change'⁵

Thus, even on the individual language level, another feature besides spontaneity is needed in order to account for the distribution of lability.

The feature I propose is the semantic class of the situation. Below I will show that it is superior in accounting for the distribution of labile verbs to the spontaneity parameter, even if it does not apply to the causative/anticausative opposition.

5. The results slightly change if we include the data from Rothemberg (1974); for instance, the verb *casser* 'break' is labile, although its intransitive use is not highly frequent. Its synonym *briser* 'break' is strictly transitive (see also Achard 2006).

Moreover, the semantic classification explains the distribution of labile verbs in languages outside of Haspelmath's sample.

4. Semantic classification

I propose that it is the semantic classification of situation which is responsible for distribution of labile verbs. In order to prove this, I will classify the 31 situations from Haspelmath's scale along the following dimensions:

1. 'destruction and strong property change': situations where the patient is destroyed or significantly changes its properties: 'break', 'boil', 'freeze', 'dry', 'go out', 'melt', 'dissolve', 'burn', 'destroy', 'break', 'split', 'kill/die';
2. 'motion'/spatial configuration': 'roll', 'rock', 'sink', 'spread', 'close', 'open', 'connect', 'rise/raise', 'stop', 'fill', 'turn';
3. 'phase': 'begin', 'finish';
4. 'non-physical effect': 'change', 'improve', 'develop';
5. verbs with an animate patient: 'wake up', 'learn', 'gather'.

The classification is partly built on Levin's (1993) classification of English verbs, though it is much rougher, since at the present stage it covers only the 31 verb from Haspelmath's sample. The classification calls for some comments. First of all, I take verbs with an animate patient to code a separate class of situations. This assumption is based on the idea that such situations do not form prototypical inchoative/causative oppositions: situations like 'wake up', 'learn' or 'gather' are not canonical inchoatives (or anticausatives). Each of them is not *spontaneous*, but requires some effort on the part of the patient (this is less obvious for 'wake up', however, which codes a special type of affect that is compatible with animate patients only).

Second, 'sink' is included into the group of motion verbs. In fact, this situation may presuppose the destruction of the patient (*The ship sank* implies that the ship can no more be used), but the core component of meaning is the downward motion, contrasting with what 'drown' codes.

Finally, 'die/kill' are included in the destruction class, and not in the class with an animate patient. The reason is that 'kill' codes a prototypically transitive situation in all respects. In terms of Hopper and Thompson (1980), it has high semantic transitivity: the situation is punctual and the animate patient is destroyed in the course of the situation.

In Table 3, the average numbers of labile verbs for each semantic class are shown (the results are based on the languages from Haspelmath's sample).

Table 3. Average numbers of labile verbs for each semantic class

Verb class	Average number of labile verbs
Phase	6 (2 verbs, 12 labile lexemes)
Destruction	3.09 (11 verbs, 34 labile lexemes)
Non-physical effect	2.33 (3 verbs, 7 labile lexemes)
Motion	1.91 (11 verbs, 21 labile lexeme)
Animate patient	1.67 (3 verbs, 5 labile lexemes)

Let us compare the results in Table 3 and Table 2. I want to find out which of the two parameters (spontaneity or semantic class) is more illustrative. Since our purpose is to find a parameter which is relevant for the distribution of labile verbs, the more relevant parameter is the one which leads to such a classification of situations that the classes differ significantly in the number of labile verbs. If, in contrast, a parameter divides the situations into classes which have equal or almost equal numbers of labile verbs, it means that this parameter is irrelevant for lability.

Following this logic, I submit that the results in Table 3 are more illustrative than those in Table 2. The difference between the spontaneous and the non-spontaneous class is 0.6 verbs per situation. The difference between the semantic classes in Table 3 is much greater: phasal verbs outrank destruction verbs by 2.91 labile verbs per situation type. Destruction verbs in turn outrank the non-physical class by 0.76 verbs per situation type. Therefore, even if we exclude the small class of phasal verbs from our analysis, the difference between the 'destruction' and the 'non-physical' class is still more significant than that between the spontaneity classes. This leads to the conclusion that lexical semantics (or, more specifically, the semantic degree of transitivity and properties of the patient) is more important for the distribution of labile verbs than the spontaneity parameter. In 4.1 I show that this tendency manifests itself also in particular individual languages.

4.1 Lexical semantics and labile verbs in individual languages

Above I have shown that many languages of Haspelmath's sample do not seem to be sensitive to the spontaneity parameter. However, the lexical semantic approach works very well for some of them.

For instance, I have shown that the Lezgian labile verbs cannot be accounted for in terms of spontaneity. They belong to different parts of the scale. On the other hand, the four labile verbs in Lezgian all belong to the destruction class. This tendency is not violated, even if we add verbs from Haspelmath (1993b), such as *qazunun* 'tear' or *aTun* 'tear off'. Thus, the spontaneity account helps us to explain the distribution of Lezgian labile verbs.

In contrast, in Awa Pit we find a class of labile verbs which includes few destruction verbs. Only *kiz-* ‘break’ is a true destruction verb, *kil* ‘dry’ also belongs to situations involving a change with respect to a property. On the other hand, three of the verbs (*alizh kul-* ‘get annoyed, annoy’, *ishkwini-* ‘be startled, scare’ and *kaa* ‘bear/be born’) have an animate patient. Therefore, Awa Pit does not correspond to the general tendency. In this language, the destruction class is represented much less than that of verbs with animate patients, whereas the overall number of verbs with animate patients is in fact lower than that of destruction verbs.

4.2 Verbs with animate patients: Why are they so rare?

First of all, note that the class of situations with animate patients is rarely denoted by labile verbs. This tendency is observed by Nichols et al. (2004) (labile verbs are much more frequent in the “inanimate” part of the tables), but described for in statistic, rather than semantic terms.

I suppose that this is an effect of the abovementioned fact: pairs with animate patients are not genuine inchoative/causative pairs. Their semantic properties make them similar to reflexives, not only to inchoatives/anticausatives. Only the situation coded by ‘wake up’ seems to instantiate a canonical inchoative/causative opposition. The sentence *John woke Bill up* means exactly ‘John caused Bill to wake up’.

In contrast, the situation ‘gather’ in the intransitive variant presupposes deliberate action of the animate subject. Therefore, this is rather an autocausative in terms of Geniušienė (1987) than a canonical ‘inchoative’. Although the transitive variant is compatible with animate and inanimate patients (cf. *He gathered a crowd* and *He gathered experience*), the intransitive one can only be used with an animate subject.

Finally, the situation coded by ‘hide’ is closer to a reflexive than to an anticausative. The transitive version *I hid money* is not semantically a causative correlate of *John hid* – rather, *John hid* is a reflexive which means the same as ‘John hid himself’.

Note that Native American languages are different in this respect from the European and Asian languages of Haspelmath’s sample. In the Americas, the relative number of labile verbs with animate patients is much higher than in Europe and Asia.

For instance, the only labile verb in Piraha is *xoab* ‘die, kill’:

Piraha (Mura):

- (11) *Káixihí hi xoab-á-há.*
 paca 3 kill-REMOTE-COMPL
 ‘The paca killed it/him.’
 ‘The paca (it) died.’

(Everett 1986)

As we have seen, there are three labile verbs with animate patients among the labile verbs in Awa Pit (Barbacoan). Yanomami (Yanomam) has the labile verbs *aubraI* ‘wash’, *mamo shikirihou* ‘get blind/make blind’, although there is also a class of labile verbs with inanimate patients. In Wai Wai (Carib), there is only one labile verb, which has an animate patient:

Wai Wai (Carib, Hawkins 2002)

- (12) a. *K-ahwo-ka.*
 1S-happy-REV+TP
 ‘I became unhappy.’
- b. *K-ahwo-ka.*
 1+2O-happy-REV+TP
 ‘He made us unhappy.’

This tendency is interesting, because Amerindian languages generally do not have large classes of labile verbs (see Nichols et al. 2004). The fact that they have a type of lability concerning verbs with animate patients makes them particularly intriguing: these verbs are rather rare for Indo-European and Caucasian languages with otherwise large classes of labile verbs.

4.3 Motion and phasal verbs

The overall frequency of motion verbs is relatively low, according to Table 3. However, the crucial fact is that in some languages, lability characterizes almost exclusively the class of motion (and position).

For instance, in colloquial Russian, which has few labile verbs, all of them have to do with motion: cf. *kružít* ‘roll’, *pognat* ‘begin to urge/begin to run’, *lit* ‘pour’ (motion of liquid), *sypat* ‘spill’ (motion of friable substances), *mčat* ‘move (sth) fast’, *kapat* ‘drop’, and so on. The same tendency can be observed in Ancient Greek: contrary to Modern Greek, this language does not have labile verbs of destruction, while the motion class is characterized by lability: *ballō* ‘throw (oneself)’, *bainō* ‘go/lead’ and so on.

Lability of motion verbs is not an exclusively Indo-European phenomenon. In Lavukaleve (Papuan), according to Terrill (2003: 47), the labile class includes mainly verbs of motion and position: *ao* ‘get in, put in’; *fale* ‘stand, stand smth up’; *foa* ‘go down, put down’; *hoi* ‘go in, put in’; *igu* ‘go out, take out’; *kekea* ‘dry (smth.) out’; *lei* ‘be, hang something’ and *vo* ‘come, begin something’. All of these lexemes, except *kekea* ‘dry out’ include the idea of position or motion.

The reason for the lability of motion verbs might be their low transitivity. In fact, it should be obvious from the preceding sections that lability does not always characterize verbs with high transitivity: see for instance the data of Awa Pit.

In Letuchiy (2006) I proposed that for some languages it is verbs with low transitivity that tend to be labile. The reason is that lability is regulated by the following principle (a tendency, rather than a universal), proposed in Letuchiy (2009):

The uses of any labile verb must be semantically as close to each other as possible.

If a given lexeme is prototypically transitive, then the two alternative uses are not close to each other. For instance, the situation coded by ‘break (transitive)’ is agentive, whereas ‘break (intransitive)’ has a patientive subject. In contrast, the two uses of *pognat* ‘begin to urge/begin to run’ are semantically closer to each other. Both uses have agentive subjects, neither of them has a prototypical patient.

The reason why phasal verbs are frequently labile could be the same: Neither of the uses of these verbs has a prototypical patient. Therefore, the two uses: the transitive one, as in *The teacher began the lesson* and the intransitive one, as in *The lesson began* are semantically very close to each other.

5. Why are labile verbs so different from causatives and anticausatives?

I have argued that the distribution of labile verbs is regulated by other principles than that of causatives and anticausatives. According to my proposal, the crucial factor is the semantic class of verb, and not the spontaneity parameter. In this section, I will try to explain why the labile type of opposition is different from other types.

First of all, I proposed in 3.2 that lability partly functions as a compensatory mechanism: when a language has a causative marker, lability characterizes the anticausative zone, and vice versa. This results in the fact that lability can characterize any part of the scale, depending on the grammatical system. The spontaneity parameter cannot thus be statistically significant. However, this account does not explain why even in individual languages labile verbs do not occupy a continuous stretch of the scale, examples like German, Ava Pit and Lezgian made us propose that lability is not regulated by the spontaneity parameter.

In my view, this difference between lability and (anti)causatives results from the formal difference of these types of oppositions. In the (anti)causative type, one of the members is derived from the other one. According to Haspelmath (1993a), the non-derived member must code the more prototypical, cognitively basic situation. The cognitive simplicity is directly related to spontaneity: the more spontaneous the situation is, the more prototypical is its spontaneous variant.

In contrast, lability is an opposition “inside” the lexical meaning of a lexeme. None of the uses is morphologically derived. Therefore, lability is not expected to be related to cognitive simplicity. It should be noted that my semantic classification

does not have to do with cognitive simplicity of the transitive or intransitive variant of the situation. On the contrary, the semantic class of the situation and semantic properties of the subject and the object are decisive, as lability is not a highly productive type of opposition. The semantic classification I proposed in 4, as well as any semantic classification, including that proposed by Levin (1993), let us distinguish rather narrow classes of verbs, for instance, motion verbs. Lability, as a lexico-grammatical process, depends on the lexical semantic classification: in many languages it characterizes mainly (or primarily) one narrow verb class: verbs of destruction, motion verbs, or phasal verbs.

This fact is reminiscent of the situation in the domain of polysemy. Widespread polysemy patterns are usually formulated in terms of lexical classes: for instance, verbs of motion tend to be grammaticalized to become aspectually characterize a situation (see Majsak 2005). The spontaneity account would not be very useful in this case. The similarity between lability and polysemy, as opposed to the causative and the anticausative type of opposition, suggests that lability is in many respects a sort of polysemy, rather than an unmarked derivation (see further arguments in Letuchiy 2006).

Let us return to the opposition between the lexical transitivity approach and the 'formal types' approach. Lability is apparently an intermediate type of phenomenon which requires both approaches for an explanation of its distribution. On the one hand, lability functions as a compensatory mechanism both in transitivity and in detransitivizing languages which makes it necessary to apply to the formal types approach, more precisely, to the spontaneity parameter. On the other hand, the distribution of lability crucially depends on the lexical class of the verb. Therefore, the semantic transitivity analysis is also inevitable for our analysis.

6. Conclusions

In the present paper, I have analyzed the distribution of labile verbs in the languages of Haspelmath's (1993a) sample and some others. I have argued that the spontaneity parameter is not essential for this distribution, although it can explain the differences observed between 'transitivity' and 'detransitivizing' languages.

What is really crucial is the lexical semantic classification. I have argued that this classification not only makes some relevant cross-linguistic tendencies more clear (for instance, the statistical differences between the classes of phasal verbs, destruction verbs and motion verbs), but also describes the distribution of lability in some individual languages which is not fully accounted for in terms of spontaneity.

The difference between the causative and the anticausative types of opposition regulated by spontaneity and the labile type regulated by lexical semantics results

from the formal differences between these types. Lability is a lexical opposition, intermediate between valency derivation and polysemy, whereas (anti)causatives represent grammatical oppositions. Interestingly, it turns out that the set of transitivity alternations is heterogeneous: not all of them are governed by the spontaneity feature, although it can account for the anticausative and causative types of oppositions. The labile subtype is regulated by the parameter of semantic class, however, rather than spontaneity.

Thus, we see that transitivity-related features can be regulated by different parameters interacting with each other: some of them characterize sets of participants of the given situations (presence/absence of the agent, spontaneity), others are related to lexical semantics proper, to the nature of the situation that is coded.

A question arises naturally: Is the same tendency valid outside the transitivity zone? In other words, is it true that lexical oppositions are regulated by lexical semantic classification, whereas grammatical oppositions are sensitive to broader semantic parameters, such as spontaneity? I have to leave this topic for further research.

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