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The Path to Neutralization: Image Schemas and Prefixed Motion Verbs

One of the major difficulties for students of Russian as a foreign language is to understand the use of unidirectional and non-directional motion verbs like идти and ходить. But when they have finally mastered the directionality distinction it comes as a surprise that it only occurs in unprefixed motion verbs. Why is there no distinction between unidirectional and non-directional *prefixed* verbs of motion? In this article, I propose a principled answer to this question in terms of the image schema *path*. I argue that the stem of unidirectional motion verbs like идти provides an abstract *path* which is further fleshed out by the addition of a prefix. It is suggested that the semantic overlap between stem and prefix leads to the neutralization of the directionality contrast in prefixed motion verbs.

After a brief presentation of the Russian motion verbs in section 1, I discuss the *path* and *manner* image schemas in section 2 and the unidirectional-non-directional contrast in section 3. Section 4 shows how image schemas provide a principled account of neutralization in section 4. The implications of an image schematic approach for aspect are analyzed in section 4, before the contribution of the article is summarized in section 5.

1. Russian Verbs of Motion: Three Conceptual Layers

Russian verbs of motion involve three conceptual layers that correspond to the root, stem and prefix. I will refer to these layers as *manner*, *directionality* and *path*. The innermost layer is introduced by the root, which tells us what kind of motion we are dealing with. The root /l'ot/ in летать and лететь conveys the meaning of flying, while the root /polz/ in ползать and ползти indicates crawling. Talmy (1985) uses the term *manner* to capture semantic differences of this type, and this term will be adopted here.

The second, intermediate conceptual layer arises when a suffix is added to the root. In Table 1, I list thirteen pairs of motion verbs, where the members of each pair have the same root, but different suffixes.[1] The verbs to the left describe motion in one direction towards a goal, while the verbs in the middle column do not involve this meaning. I will use the term "directionality" for this intermediate conceptual layer, and refer to the members of the pairs as "unidirectional" and "non-directional" verbs of motion.[2]

Unidirectional verb:	Non-directional verb:	Gloss:
бежать	бегать	'run'
вести	водить	'lead'
везти	возить	'convey, transport'
гнать	гонять	'drive, chase'
ехать	ездить	'travel, ride'
идти	ходить	'go, walk'
катить	катать	'roll'
лезть	лазить (лазать)	'climb'
лететь	летать	'fly'
нести	носить	'carry'
плыть	плавать	'swim, float'
ползти	ползать	'crawl'
тащить	таскать	'drag'

Table 1: Paired motion verbs in Russian

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[1] The pair идти/ходить 'go, walk' displays suppletion and is therefore an exception to the generalization that the members of a pair share the same root. In some of the pairs, there are morphophonological alternations in the roots, e.g. плыть/плавать where the root has the vowel /i/ in плыть, but /a/ in плавать.

[2] In English, the most widely used terms seem to be *determinate/indeterminate* (Foote 1967; Forsyth 1970; Jakobson 1971/1966; Timberlake 2004, Ward 1965) and *unidirectional/multidirectional* (Mahota 1996; Wade 1992). I prefer *unidirectional* to *determinate*, because the former gives a better indication of the meaning of the verbs in question. I will not use *multidirectional*, however, because this term covers only one of the meanings of the relevant verbs. A more precise term would be "non-unidirectional", which corresponds to the Russian term *glagoly neodnonapravlennogo dviženija* employed by the Academy Grammar (Švedova 1980). However, in the following I shall use the somewhat simpler term *non-directional*.

The third and outermost conceptual layer comes into play when a prefix is added to the verb. In (1) the prefix в- denotes movement into, whereas the prefix вы- in (2) indicates the opposite trajectory.

(1) Я пил чай, а на чердак **влетел** артиллерийский снаряд. [Новая газета]

(2) Из соседней комнаты **вылетела** большая темная птица и тихонько задела крылом лысину буфетчика. [Булгаков]

I will follow Talmy (1985) who uses the term *path* for meanings of this sort.

2. Cognition and Typology: The *Manner* and *Path* Image Schemas

The notions of *manner* and *path* are relevant for human cognition and language typology. A key concept in understanding cognition is the image schema, which Johnson (1987:xiv) defines as "a recurring dynamic pattern of our perceptual interactions and motor programs that gives coherence and structure to our experience". Image schemas are proposed as "'embodied' anchors of the entire conceptual system" (Hampe 2005:2). One of the most thoroughly studied image schemas is *path*. What I have referred to as manner is a cover term for a number of roles such as mover, gait, speed, effort, and body part. According to Dodge and Lakoff (2005:68), these roles "collectively constitute what might be called a 'Locomotion' schema for self-motion". For convenience, in the following I will refer to the image schemas as *path* and *manner*.

Talmy (1985) has shown that the *manner* and *path* image schemas are valuable in language typology. Some languages tend to represent *path* in the verb root, while *manner* may be expressed by optional adverbial or gerundive constructions. Talmy's (1985:69) examples from Spanish illustrate this:

(3)   La botella entró a la cueva (flotando).
      'The bottle moved into the cave (floating).'

(4)   La botella salió a la cueva (flotando).
      'The bottle moved out of the cave (floating).'

The verb forms *entro* and *salio* specify opposite *paths*, but do not say anything about *manner*. In order to express the fact that the bottle in both examples is floating, we have to add the optional constituent *flotando*.

English is a good example of the opposite pattern, where *manner* is expressed in the verb root. Consider one of Talmy's (1985:68) examples:

(5)   I rolled the keg into the storeroom.

Here, the verb indicates the *manner* of movement. The *path* is expressed by the preposition *into*, which could be replaced by *out of* if we wanted to specify the opposite *path*. In English, *path* plays second violin; while *manner* is expressed in the verb root, path is realized by optional elements, such as particles and prepositions.

How does Russian fit into this typology? Although Talmy (1985:124) is well aware of the differences between Russian and English, he places Russian in the same group as English. This is justified since Russian, as shown in the previous section, specifies *manner* in the root, while *path* is expressed by optional prefixes. However, there is one problem with this classification. While it takes into account the inner and outer conceptual layers, which express *manner* and *path*, respectively, the classification has nothing to say about the intermediate conceptual layer described in the previous section. The question therefore arises as to how the intermediate conceptual layer fits into Talmy's typology. We turn to this question in the next section.

3.   Unidirectional vs. Non-directional Verbs

In order to understand the semantic contribution of the intermediate conceptual layer, we need to consider four types of situations.[3] The first

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[3] I will not discuss repeated actions, which may be analyzed as a fifth type.

involves movement in one direction towards a goal. As can be seen from the following examples, unidirectional motion verbs are reserved for situations of this type:

(6) Поэтому он **бежит** в кино, чтобы в темноте отдышаться. [Измайлов.]

(7) Костя и Нюра **идут** к бабушке. [Дубов]

(8) Лиса **ползла** к ним с подветренной стороны. [Мамин-Сибиряк.]

The second type of situation involves movement along a path to a goal, and then movement back again to the starting point. In order to describe movement of this sort, non-directional motion verbs are used, as shown by the following examples:

(9) Борисюк **ездил** в Австралию? [Аргументы и факты]

(10) Вчера он **ходил** в кино и должен был показать местным, как одеваются нормальные люди. [Болмат]

(11) Еще будучи на гастролях в Риге весной 1959 года, я **летал** в Москву, где репетировал в "Современнике" первую свою роль в спектакле "Взломщики тишины" [Козаков]

Movement with no particular direction represents the third situation type. As suggested by the term, non-directional verbs are used in such situations. Consider these examples:

(12) Он **ходит**, точно **летает**; его будто кто-то **носит** по комнате. [Гончаров.]

(13) Известно, что он много **ездил** по Европе и побывал даже в Америке. [Российская музыкальная газета]

The fourth situation type comprises examples that specify somebody's ability to move. As can be seen from the following examples, non-directional verbs are used:

(14) Он забыл, что не умеет **плавать**, и, естественно, утонул. [Амурский Меридиан]

(15) А мои дети, Тиша и Тоша, всюду вместе, один еще **ползает**, а другой уже **ходит**. [Петрушевская]

(16) Видор научился **летать** по-настоящему. [Семья]

This brief discussion suggests that the opposition between unidirectional and non-directional motion verbs is privative (in the sense of Trubetzkoy 1939:67). The unidirectional verbs contribute the meaning of motion in one direction towards a goal, while non-directional verbs do not involve a corresponding meaning, which allows them to be used in a wide variety of situations as shown above. We are dealing with an opposition between the presence vs. absence of unidirectionality.

We are now in a position to address the question as to how the intermediate conceptual layer, i.e. the contrast between unidirectional and non-directional verbs, relates to Talmy's typology. The meaning "motion in one direction towards a goal" is clearly not related to *manner* as it does not say anything about what kind of motion is involved. Instead, I propose that unidirectional verbs specify a highly *schematic path*. By "schematic" I mean a "course-grained representation" providing relatively little detail (cf. Langacker 1991:552).[4] When the suffix /e/ is added to the root /l'ot/, the result is a stem combining the meaning of *manner* (flying) and schematic *path* (movement in one direction towards a goal). If a prefix is added to the stem, e.g. *v-* 'into', the meaning of the *path* is fleshed out in further detail. The prefixed verb *vletet'* indicates flying along a path that leads into some location as illustrated in example (1) in section 1.

To summarize, the Russian motion verbs fit into Talmy's *manner/path* typology, insofar as the innermost conceptual layer expresses manner, while the intermediate and outer layers represent *path*. The contributions of the two outer layers therefore overlap. The intermediate

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[4] Schematicity is a matter of degree. Since the *paths* introduced by stem and prefix are both image schemas, they are schematic to some degree, but the *path* of the stem involves less specific detail, and is therefore schematic to a higher degree.

layer supplies a schematic *path*, which is fleshed out in further detail in the outermost layer by means of a prefix.

4. Neutralization

The analysis involving two overlapping paths, simple as it is, enables us to address the question stated in the beginning of this paper: Why is there no distinction between unidirectional and non-directional prefixed verbs of motion? We have already seen what happens when a prefix is added to a unidirectional verb. The prefix provides a specific *path*, which fleshes out the schematic *path* meaning of the stem. The result is a verb with the path meaning of the prefix. Since the stem's *path* meaning is schematic, it does not contribute anything that is not included in the meaning of the prefix.

What happens when a non-directional verb stem combines with a prefix? Recall from the previous section that the unidirectional/non-directional opposition is privative. While unidirectional verbs contribute a *path*, non-directional verbs lack *path* meaning. When a prefix is added to a non-directional verb, the prefix adds a *path* to the meaning of the verb. The result is a verb with the *path* meaning of the prefix.

If we compare the effect of prefixation on unidirectional and non-directional motion verbs, we see that the result is the same in both cases. The verbs влететь (prefix + unidirectional) and влетать (prefix + non-directional) contain the same *path* meaning. In other words, the contrast between non-directional and unidirectional is neutralized. The analysis I have sketched in terms of the image schema *path* enables us to give a principled account of why this is so. If you add a specific *path* to a schematic *path*, the result is a specific *path*. If you add a specific *path* to no *path*, the result is also a specific *path*. The argument can be summarized as follows:

	Stem	+Prefix:	= Prefixed verb
Unidir:	schematic *path*	+specific *path*	= specific *path*
Non-dir:	no *path*	+specific *path*	= specific *path*

Table 2: Neutralization of unidirectional/non-directional contrast

At this point a critical reader may object that the exposition in Table 2 is simplistic insofar as it suggests that prefixed verbs like влететь and

влетать have identical meanings. As is well known, this is not the case. The two verbs have different aspects; влететь is perfective, while влетать is imperfective. Does an analysis in terms of the image schema *path* facilitate an account of the aspectual difference between the prefixed verbs? As we will see in the following section, there are reasons to believe it does.

5. Aspect: *Path* and the Imperfective/Perfective Distinction

Perfective verbs like влететь are of the type that Janda (2007) calls "specialized perfectives". They "describe the logical completion of the corresponding imperfective activity", but at the same time add "enough new semantic content to motivate derivation of corresponding imperfectives" (Janda 2007:609). In other words, влететь represents the completion of the flying activity denoted by the imperfective, unprefixed лететь, but at the same time the perfective verb involves additional information, namely the specific *path* introduced by the prefix. Since specialized perfectives involves completion it is natural for them to be formed on the basis of imperfective verbs that denote completable events. Unidirectional imperfective verbs represent completable events, because they involve a *path* that leads towards a goal (Janda 2007:638, see also Janda to appear). We should therefore expect prefixed verbs based on unidirectional verbs to be perfective. As we have seen, this prediction is borne out by the facts, since verbs like влететь are indeed perfective.

Non-directional motion verbs like летать describe non-completable activities; since they do not involve a *path* these verbs do not represent activities with a natural goal. Janda (2007:634) shows that imperfective verbs that describe non-completable activities do not form specialized perfectives in Russian. In other words, we do not expect prefixes like в- to change the aspect of the unprefixed verb. The prefixed verb влетать is therefore imperfective.

This discussion shows that an analysis in terms of the *path* image schema not only provides a straightforward account of the neutralization of the unidirectional/non-directonal opposition in prefixed verbs, but also facilitates a simple analysis of the aspectual behavior of prefixed motion verbs. One question remains, though: Are all prefixed verbs based on non-directional verbs of motion *imperfective*? The answer is in the negative.

However, once again this fact can be accommodated in an analysis in terms of image schemas. The two prefixes по- and с- offer the best examples of perfective prefixations based on non-directional verbs. Consider the following examples with the verbs полетать 'fly for a while' and слетать 'fly somewhere and back again':

(17) Он согласился, **полетал**, и об этом потом было написано в газетах. [Хрущев]

(18) Еще до того, как Юрий Гагарин в космос **слетал**. [Есеновский]

As we have seen, prefixes like в-, which introduce a *path*, do not yield perfective verbs when combined with a non-completable, non-directional verb. However, the по- and с- prefixes do not represent *paths*. The former is quantificational in the sense that it imposes a limit on an inherently unbounded activity. Janda (2007:609) refers to perfective verbs of this type as "complex acts". The prefix с- also does not introduce a *path*. As shown by examples like (17), слетать involves a trip somewhere and back again. After all, what made Yuri Gagarin's flight so successful was the fact that he was able to return to Earth in good shape. Janda (2007:639) treats verbs with the с- prefix as "single acts", because слетать represents a singularization of the repeated cycles of летать "just as щипнуть 'pinch, pluck once' is a singularization of the repeated cycles of щипать 'pinch, pluck'. Whether one accepts this analogy or not, it is clear that the с- prefix does not involve a *path*, because the subject (e.g. Gagarin in (17)) ends up in the very place where s/he set out. The upshot of this discussion is a simple generalization: Prefixes that introduce a *path* yield perfective verbs from unidirectional verbs, while prefixes that do not represent a *path* produce perfective verbs from non-directional verbs of motion. Once again, the *path* image schema enables us to formulate a simple generalization about the aspectual behavior of motion verbs.

6.   Conclusion

This article has focused on the *path* image schema and discussed its interaction with *manner* and aspect in Russian verbs of motion. I have argued that the stem of unidirectional motion verbs like идти provides a

schematic *path.* This path is further fleshed out in prefixation where a prefix encodes a more specific path. I have shown that the semantic overlap between stem and prefix is responsible for the neutralization of the directionality contrast in prefixed motion verbs. Thus the *path* image schema facilitates a principled explanation for why the opposition between unidirectional and non-directional verbs of motion is restricted to unprefixed verbs.

In addition, the *path* image schema enables us to state a simple and insightful generalization about aspect. First, we have seen that presence vs. absence of *path* corresponds to the distinction between completable vs. non-completable which explains whether a prefixed motion verb is perfective or imperfective. Second, we have seen that prefixes that involve the *path* image schema produce perfective verbs from unidirectional motion verbs, whereas prefixes that lack *path* meaning create perfective verbs from non-directional motion verbs. In general, this study demonstrates that seemingly idiosyncratic properties of Russian motion verbs receive principled explanations when considered in the light of image schemas and language typology.

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