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Variation in the encoding of endpoints of motion in Russian

ABSTRACT

In Russian, as in a typical satellite-framed language, endpoints of motion are usually introduced by specialized directional PPs (such as combinations of a preposition with the accusative case). With a small set of verbs, however, the endpoint of motion can instead be introduced by locational PPs. This paper explores restrictions on the use of this less-studied strategy for encoding endpoints of motion. It is argued that locational PPs with an endpoint interpretation are licensed by change of state verbs, rather than motion verbs, and alternate with directional PPs that behave as result phrases. It is also shown that the choice of a construction is further influenced by a number of contextual factors, including event construal and the preposition used.

Variation in the encoding of endpoints of motion in Russian

1. Alternative ways of encoding endpoints of motion

Cross-linguistic variation in the encoding of motion events is one of the most intensively studied topics in lexical typology (Talmy 1975, 1985, 1991; Slobin 1996, 2006; Bohnemeyer et al. 2007; Beavers et al. in prep., inter alia). An especially well-researched parameter of the variation is the distinction between so-called *verb-framed* and *satellite-framed* languages (Talmy 1985, 1991, 2000). The two language types rely on different lexical means in distinguishing goals of motion from static locations. Satellite-framed languages tend to encode goals of motion with specialized adpositions, case marking, particles, or adverbs. For example, in (1) from English the endpoint of motion is unambiguously encoded by a preposition.

(1) John walked / ran / came into the room.

Verb-framed languages lack specialized lexical means for encoding the meaning of goal and instead rely on the use of special verbs of directional motion, which unambiguously determine the role of their locative argument. In such a language, the same PP can be interpreted as a goal or as a static location depending on the verb it combines with. In (2), the goal of motion is encoded in the same way as a static location, and only the verb distinguishes between the two readings. The PP introduces a static location with verbs that do not entail a change of location, such as with positional and manner of motion verbs (2a), but a goal with verbs of directional motion (2b).

(2) a. *Je suis à l'école*
'I am at school.' (static location)

b. *Je suis allé à l'école*
'I went to school.' (motion toward a goal)

Within this typology, Russian appears to be a well-behaved satellite-framed language (cf. Slobin 2003, 2004). The distinction between goals and static locations is marked by a combination of preposition and case, and a number of prepositions, including *v* 'in' and

na ‘on’, can take a complement in either locative or accusative case depending on whether they mark a static location or an endpoint of motion.[1]

(3) a. *Sobaka* *spit* *v* *prixožej*
dog sleeps.IPFV in antechamber.LOC
‘The dog is sleeping in the antechamber.’

b. *Sobaka* *bežit* *v* *prixožuju*
dog runs.IPFV in antechamber.ACC
‘The dog is running into the antechamber.’[2]

Selected directional and locational P + case combinations are listed in Table 1 below; some prepositions are complex and consist of more than one word (cf. *rjadom s* ‘near’ below).

[1] In traditional grammar the locative is often subsumed under the prepositional case, since for most nouns the two forms are identical; a small set of nouns, however, have a locative form that is clearly distinct from the prepositional form, cf. the locative (*v*) *sadu* and the prepositional (*o*) *sade* (see Comrie 1986: 93-4). Timberlake (1993: 836; 2004: 330-3) refers to the prepositional case as “locative”, and the locative case as “second locative”. In this paper I do not distinguish between the two case forms (prepositional vs. locative, or locative vs. second locative) and collapse them under the label “locative”.

[2] I ignore the distinction between determinate (unidirectional) and indeterminate (non-unidirectional) motion verbs, since it is apparently orthogonal to the expression of the endpoint of motion. Although determinate motion verbs have a strong tendency to co-occur with goal arguments, they can also combine, in an appropriate context, with locational modifiers; similarly, indeterminate motion verbs, while commonly modified by locational PPs, can combine with directional PPs that specify the endpoint of motion (typically, such uses are interpreted habitually; this reading reconciles, on the one hand, the lack of a specific direction suggested by the choice of an indeterminate motion verb and, on the other, the presence of an endpoint of motion suggested by the directional PP). The following two pairs of examples, extracted from the Russian National Corpus (http://www.ruscorpora.ru/), illustrate that both types of verb are compatible with either type of PP.

(i) Determinate motion (*letet’* ‘fly’)

a. Zvuk truby letit v nebo
sound of.horn flies.IPFV in sky.ACC
‘The sound of the horn flies into the sky.’ (V. Aksenov, *Zvezdnyj bilet*)

b. Letit v sinem nebe, lëgkij, kak vol’naja ptica
flies.IPFV in blue.LOC sky.LOC light as free bird
‘[He] flies in the blue sky, as light as a free bird.’ (F. Sologub, *V tolpe*)

(ii) Indeterminate motion (*letat’* ‘fly’):

a. Gluxari malo edjat xlebnyx zëren i redko
wood-grouses little eat.IPFV bread grain and rarely
letajut v xlebnye polja
fly.IPFV in bread.ACC fields.ACC
‘Wood-grouses eat little bread grains and rarely fly to the bread fields.’
(S. Aksakov, *Zapiski ruzhejnogo oxotnika*)

b. Lastočki tabunkami letajut v poljax
swallows little.herds.INSTR fly.IPFV in fields.LOC
‘Swallows fly in the fields in small herds.’ (M. Prishvin, *Dnevniki*)

Table 1. Some directional and locational P + case combinations

preposition	locational PP	directional PP
v 'in'	*v* + Loc	*v* + Acc
na 'on'	*na* + Loc	*na* + Acc
pod 'under'	*pod* + Instr	*pod* + Acc
nad 'above'	*nad* + Instr	*
za 'behind'	*za* + Instr	*za* + Acc
pered 'in front of'	*pered* + Instr	*[3]
rjadom s 'near'	*rjadom s* + Instr.	*
u 'by'	*u* + Gen	*
k 'toward'	*	*k* + Dat

With some verbs, however, the distinction between goals of motion and static locations is blurred. In (4), the endpoint of motion can be expressed in two alternative ways: in the P + accusative configuration, i.e. with the specialized marking normally used to encode goals of motion, or in the P + locative combination, as if it were a static location (the former variant is more frequent and tends to be preferred out of context).[4]

(4) *Postav'* *vazu* *na stol /* *na stole*
put.PFV vase on table.ACC on table.LOC
'Put the vase on the table.'

Similar variation is attested in other Slavic languages: prepositional phrases that normally express static locations can encode the endpoint of motion in Polish (Cienki 1989: 141-

[3] The preposition *pered* could combine with the accusative case on the directional reading until at least the second half of the 19th century, and possibly later (Stanisheva 1966: 118-9).

[4] Some examples with the P + locative combination, including those attested in the corpus, may even be rejected by some speakers when provided in isolation. Judgments tend to change when the sentence is embedded in an appropriate context. The following examples illustrate the use of the P + locative combination in the Russian National Corpus (http://www.ruscorpora.ru/; due to space limitations, I cannot provide a comprehensive account of all such uses; exploration of the corpus data remains a topic for a separate study).

(iii) Stol postavil sredi grota, na stole postavil vazy…
table put.PFV. in.the.middle.of grotto.GEN on table.LOC put.PFV vases
'[He] put the table in the middle of the grotto, put vases on the table…'
(A. Beliaev, *Chelovek-Amfibiia*)

(iv) … Vasilisa nalivaet emu stakan čaju i stavit na seredine stola
V. pours.IPFV him glass of.tea and puts.IPFV on middle.LOC of.table
'… Vasilisa pours him a glass of tea and puts it in the middle of the table.'
(V. Rasputin, *Vasily and Vasilisa*)

(v) A njanjuška stavit da stavit rjadkom ix na stole …
and nanny puts IPFV and puts.IPFV side.by.side them on table.LOC
'And nanny keeps putting [lit., 'puts and puts'] them [toys] on the table side by side'
(V. Odoevsky, *Igosha*)

7), Czech (Belichova-Krzhizhkova 1974; Ungermanová 2005), and Ukrainian (Nedashkivska 2001).

This paper addresses the problem of the directional / locational alternation in Russian. I survey the use of the alternative ways of encoding endpoints of motion (with directional vs. with locational PPs) and suggest that the choice between them is determined by a set of pragmatic factors, as well as by a lexical constraint defining the set of verbs that allow for both variants.

2. Lexical constraints on the directional vs. locational alternation

2.1. Defining the class of verbs

The variation in the encoding of goals is constrained by two kinds of factors. First of all, the locational and the directional constructions differ with respect to the type of motion event they describe. As I will show in section 3, which construction is preferred with a particular verb sometimes depends on subtle properties of the setting, such as the intended duration of the resulting state or the spatial configuration described. In addition to this, not every verb can combine with a locational PP expressing the endpoint of motion. In Russian, only a small set of verbs allow for the alternation in (4). In this section I discuss differences in the behavior of verbs with respect to the marking of endpoints of motion.

As already discussed in section 1, Russian is largely a satellite-framed language. With most verbs, the endpoint of motion must be encoded by a directional PP, i.e. by a specialized combination of preposition and case. No alternative description of goal is acceptable in examples like (5a), where the verb encodes a change of location as part of its meaning. Similarly, in (5b) there is no way of expressing the endpoint of motion with prepositions that introduce unambiguously locational (and not directional) phrases (see again Table 1 for a non-exhaustive list of such prepositions).

(5) a. *Mal'čik v-bežal v školu / *v škole*
boy in-ran.PFV in school.ACC in school.LOC
'The boy ran to school.'

b. **Mal'čik v-bežal pered školoj / u školy*
boy in-ran.PFV in.front.of school.INSTR near school.GEN
'The boy ran to in front of the school / to near the school.'

The verb *vbežat'* 'run in' is derived by a prefix from the manner of motion verb *bežat'* 'run' and, unlike the latter, entails directed motion (the entailment is in this case contributed by the prefix); thus, the non-prefixed verb *bežat'* 'run', but not *vbežat'* 'run in', can describe running without changing location, such as running on the spot. All verbs entailing directed motion (which I will refer to as inherently directional verbs) require the endpoint of motion to be encoded by a directional PP.

In Russian, as in English, not only motion entailing verbs can be used to describe directed motion. In (6), directional PPs combine, with certain restrictions, with verbs that do not by themselves entail a change of location, including verbs that describe certain activities, or manners of motion (6a), and certain causing events (6b).

(6) a. Activities:
*Soldaty šagajut / begut / *pljašut v gorod*
soldiers march.IPFV run.IPFV dance.IPFV in town.ACC
'The soldiers are marching / running / *dancing into the town.'

b. Causing events:
*Korova tolknula / pixnula / *ljagnula sobaku v ozero*
cow pushed.PFV shoved.PFV kicked.PFV dog in lake.ACC
'The cow pushed / shoved / *kicked the dog into the lake.'

These examples demonstrate that in addition to inherently directional verbs, some other (but by no means all) verbs can be used to describe directed motion events and combine with directional PPs. They do not entail a change of location (e.g., pushing does not always result in motion) but can be used to describe it due to a particular kind of meaning extension (Levin and Rapoport 1988). Using the term proposed by Talmy (2000: 270-1), I will refer to such verbs as verbs with a *lexicalized implicature* of change of location.

The lexicalized implicature is part of the lexical content of the verb that differs from an entailment in being defeasible.[5]

Lexicalization of the change of location implicature is subject to certain constraints on the relation between the motion event and the additional event encoded by the verb in its basic meaning; in particular, the two events must be causally related (Carter 1988: 178-9; Levin and Rappaport Hovav 1991; Croft 1991: 160-1; also Goldberg 1995: 61-3). For this reason, extending the meaning of a verb to describe a change of location results in characteristic constraints on interpretation. With activity verbs, directed motion is understood to be temporally coextensive with the main event (in 6a motion is performed by means of marching), while with punctual verbs, motion is directly caused by the event and follows it (in 6b the change of location is caused by pushing). Most importantly for our study, verbs that implicate a change of location behave exactly like verbs that entail it with respect to the encoding of goals: both require the endpoint of motion to be expressed by a directional PP. This restriction is independent of the verb's aspectual characteristics (it holds for both perfective and imperfective verbs implicating a change of location), as well as of the distinction between determinate (unidirectional) and indeterminate (non-unidirectional) motion verbs.

I now turn to verbs that allow the endpoint of motion to be expressed in two alternative ways, by a directional or by a locational PP. This flexibility characterizes, in the first place, intransitive verbs of change of position and their transitive counterparts, i.e. verbs of putting (7). The example in (4) involved one of these verbs.

[5] The number of Russian verbs that lexicalize a change of location as an implicature seems to be small compared to English. For example, sound emission verbs are typically disallowed with directional PPs unless derived by a directional prefix, as in (vi) (and in this case, the derived form unambiguously entails a change of location).

(vi)	*Gruzovik*	*pro-gromyxal*	*/ *gromyxal*	*vo*	*dvor*
	truck	PRO-rumbled.PFV	rumbled.IPFV	in	yard.acc

'The truck rumbled into the yard.'

(7) Change of position verbs[6]

Intransitive	Transitive
sadit'sja 'sit down'	*sažat'* 'seat (caus.)'
ložit'sja 'lie down'	*klast'* 'lay down, put, place'
v-stavat' 'stand up'	*stavit'* 'put, place, set, make stand'
(*visnut'* 'hang')[7]	*vešat'* 'hang (caus.)'

In addition to change of position verbs, verbs that allow locational PPs to express the endpoint of motion include a number of change of state verbs that describe activities not directly associated with motion but often accompanied by it. I list some verbs of this kind in (8); most verbs from this group have an intransitive counterpart derived by adding the suffix *-sja*. Examples of the variation between locative and directional PPs are provided in (9).

(8) Some additional change of state verbs

prjatat'	'hide'
zatočat'	'incarcerate, immure'
zapirat'	'lock up'
zapečatyvat'	'seal up'
zaryvat'	'bury'
ustanavlivat'	'install'
prikleivat'	'stick'
prikrepljat'	'attach'

(9) a. *Pirat sprjatal zoloto v sunduk / v sunduke*
pirate hid.PFV gold in chest.ACC in chest.LOC
'The pirate hid the gold in a chest.'

[6] Although only imperfective verbs are listed, their perfective counterparts are assumed not to differ in any relevant respect. More generally, no correlation has been noted between the verb's aspectual class and the restrictions it imposes on the expression of the endpoint of motion.

[7] The verb *visnut'* 'hang' is occasionally used with directional PPs in the present-day language; among expressions that were accepted by the speakers consulted is *visnut' na šeju* 'hang on [smb.'s] neck'. Apart from those few expressions, however, the verb can be said to combine with locational PPs only.

b. *Koldun zatočil carevnu v bašnju / v bašne*
sorcerer incarcerated.PFV princess in tower.ACC in tower.LOC
'The sorcerer incarcerated the princess in a tower.'

c. *Mexanik ustanovil v mašinu / v mašine radio*
technician installed.PFV in car.ACC in car.LOC radio
'The technician installed a radio in the car.'

Finally, both locational and directional PPs occur with some verbs that do not describe any motion in space but rather motion in a metaphorical sense, such as the verb *zapisyvat'* 'write down' in (10), where the act of writing is represented as a metaphorical transfer of information. I leave instances of metaphorical motion to future research and do not try to account for them in the present paper.

(10) *On zapisal telefon v tetrad' / v tetradi*
he wrote.down.PFV phone in notebook.ACC in notebook.LOC
'He wrote down the phone number in his notebook.'

Verbs that allow for variation in the encoding of the endpoint of motion differ semantically both from verbs that entail a change of location and from verbs with a change of location implicature. First of all, the verbs in (7), unlike verbs of directed motion, do not entail a change of location but only a change in the theme's spatial configuration. With the verb *sažat'* 'seat', the theme ends up in a sitting position; the verbs *stavit'* and *klast'* differ with respect to the lexicalized resulting state (roughly speaking, in a standing vs. sitting, or vertical vs. horizontal position).

(11) *Položi / postav' butylku na pol*
put.PFV make.stand.PFV bottle on floor.acc
'Put the bottle on the floor (in horizontal / standing position).'

Although the context may make it clear that the change of position was preceded by a change of location, it does not have to be so. For example, (12) can describe a change of position without a change of location.

(12) *Ja uvidel, čto butylka upala, i snova eë postavil*
I saw.PFV that bottle fell.PFV and again it.ACC make.stand.PFV
'I saw that the bottle fell and put it back into standing position.'

Similarly, the verbs in (8) entail a specific change of state but not directed motion, cf. the following example, where no change of location takes place.

(13) *Oni sprjatali korobku, nakryv eë gazetoj*
they hid.PFV box cover.PRT.PFV it.ACC newspaper.INSTR
'They hid the box by covering it with a newspaper.'

Just like change of position verbs, the verbs in (8) can but need not describe a change of location in addition to the encoded change of state.[8]

Interestingly, some of the change of state verbs in question have prefixed counterparts that do entail a change of location, cf. *sadit'sja* 'sit down' vs. *pere-saživat'sja* 'change place, take another seat'. Although the two verbs are similar in their meaning (with both the resulting state is that of sitting), the latter describes a complex change of location event. Due to this difference (one verb does not entail a change of location while the other one does), the two verbs differ in the way they mark the endpoint of motion. The change of state verb combines with locational as well as directional PPs; the prefixed change of location verb combines with directional PPs only.

(14) a. *Gosti seli na divan / na divane*
guests sat.down.PFV on sofa.ACC on sofa.LOC
'The guests sat down on a sofa.'[9]

[8] As noted by an anonymous reviewer, only a locational PP is possible when the verb describes a change of state that is not accompanied by any change of location. Such locational modifiers encode where the entire change of state took place, not where the theme ended up as a result:

(vii) Postav' čašku v rakovine / *v rakovinu
put.PFV cup in sink.LOC in sink.acc
'Stand the cup in the sink.' (where the cup is located in the sink from the very beginning, and the event only involves a change from a horizontally to a vertically oriented position)

[9] As already noted above, the P + locative combination is relatively infrequent and dispreferred in the absence of context. The following examples illustrate its use with the same verb as in (14) (*sest'* 'sit down') to encode the endpoint of motion in the Russian National Corpus; in all of them, a directional PP can be substituted for the locational one without an obvious difference in meaning.

(viii) Nu, tak sjademte zdes', na lavočke
well then sit.down.PFV.IMPER.PL here on bench.LOC
'Well, let's sit down here on a bench, then.' (A. Bely, *Peterburg*)

(ix) On sdelal rezkoe dviženie i srazu sel na svoëm meste …
he made.PFV sharp movement and right.away sat.down..PFV on own.LOC place.LOC
'He made a sharp movement and sat down at his place right away.'
(V. Korolenko, *Moroz*)

(x) On sel na stupen'ke i namylil svoi dlinnye volosy i šeju …
he sat.down.PFV on step.LOC and rubbed.with.soap.PFV own long hair and neck
'He sat down on a step and rubbed with soap his long hair and neck…'
(A. Chekhov, *Kryzhovnik*)

b. *Gosti pere-seli na divan / *na divane*
guests PERE-sat.down.PFV on sofa.ACC on sofa.LOC
'The guests changed place and sat down on sofa.'

The difference in (14) confirms once again that verbs with variable expression of the endpoint of motion differ in their lexical properties from verbs that entail a change of location. They also differ from verbs with a change of location implicature, even though the use of change of state verbs to describe a motion event is superficially similar to the meaning extension that was illustrated in (6). In both cases, the change of location is not *entailed* by the verb per se but is described by the verb *in addition* to its basic meaning. On closer inspection, however, the two extension patterns turn out to be very different. With verbs that entail or implicate change of location, the motion event is either temporally co-extensive with the other event described by the verb (if the verb describes an activity) or directly follows that event (if the verb describes a punctual event). In both cases, the two events stand in a direct causal relationship. With change of state verbs, no direct causal relationship is required: burying something or hiding it is not a means of moving it; rather, it is an action that may be accompanied by motion at some of its stages.

Moreover, with change of state verbs the directed motion event is not temporally coextensive with the change of state and is often understood to precede it. Things do not move *by means of* being sealed up or attached, sitting down is understood to be *preceded* by motion and not to cause it, and no change of location takes place *after* something is hidden or buried. The difference in interpretation of verbs that entail or implicate motion and verbs of change of state suggests that although they are used in similar constructions (in combination with a directional PP), this similarity is in fact superficial. I return to this issue in the following section.

To sum up, I have introduced three lexical classes of verbs that can express the endpoint of motion by a directional PP: verbs that entail a change of location, verbs that implicate it, and change of state verbs that sometimes allow motion to be inferred. Change of state verbs differ from verbs that implicate a change of location in the way the motion event is interpreted with respect to the other event lexicalized by the verb. They do not express directed motion as part of their extended meaning, but rather allow a change of location to be inferred as taking place *prior* to the change of state. The

correspondence between the lexical classes and the expression of endpoints of motion is summarized in Table 2.

Table 2. Lexical classes and the expression of endpoints of motion

Verb class	Change of location	Endpoint of motion
verbs of directional motion	entailed	directional PP
verbs that lexicalize a directional motion implicature	part of extended meaning: accompanies another event or follows it	directional PP
change of state verbs	inferred as preceding the change of state	directional / locational PP

2.2. Change of location and change of state: goal arguments vs. results

In the previous section I showed that motion verbs differ from change of state verbs in the way they encode the endpoint of motion. With verbs that lexicalize directed motion, either as an entailment or as an implicature, the endpoint must be expressed by a directional PP. With change of state verbs, directional PPs alternate, under certain conditions, with locational ones. In addition, the two types of verb differ in the way they integrate motion with the other event they express: with change of state verbs the directed motion is neither coextensive with the change of state nor caused by it, but precedes it. Such differences suggest that the (non-alternating) directional complement of motion verbs may differ in its syntactic status from the (alternating) directional complement of change of state verbs. In the present section I argue that the two kinds of directional PP should be treated as components of two different constructions.

Verbs that entail or implicate a change of location select for a goal argument and require it to be expressed in a directional PP. This is the only way they can express the endpoint of motion. Change of state verbs, on the other hand, can be modified by locational PPs, which specify where the change of state took place and in some cases receive a directional interpretation through inference (the change of state is inferred to be preceded by a change of location). This explains one part of the problem, namely, why

the endpoint of motion can be expressed as a static location with the change of state verbs (prior motion is inferred) but not with change of location verbs (the goal argument is subcategorized by the verb and must be expressed in a conventionalized way). The other part of the problem has to do with availability of directional marking with change of state verbs. How is it to be explained if the verbs do not select for a goal argument?

Crucially, the use of directional PPs is not restricted to goal arguments in Russian. Directional PPs occur with a variety of change of state verbs that are not associated with motion. In such cases, directional PPs describe the resulting state of the object that undergoes a change of state. In (15), for instance, the verbs do not describe any motion in space, and the meaning of the directional PPs is clearly different from that of a spatial goal.

(15) a. *rvat' / rvat'-sja* *na* *melkie* *kusočki*
tear.IPFV / tear.IPFV-REFL on small.ACC pieces.ACC
'to tear (trans./intrans.) into small pieces'

b. *raskolot' / raskolot'-sja* *na* *časti*
split.PFV / split.PFV-REFL on parts.ACC
'to split (trans./intrans.) into parts'

c. *razrezat' nožnicami* *na* *dlinnye* *poloski*
cut.PFV scissors.INSTR on long.ACC strips.ACC
'to cut into long strips with scissors'

d. *krasit'* *v* *sinij* *cvet*
paint.IPFV in blue.ACC color.ACC
'to paint blue'

e. *svoračivat'* *bumagu* *v* *rulon*
roll.IPFV paper.ACC in roll.ACC
'to roll paper into a roll'

In all the above examples the directional PPs function not as goal arguments of motion verbs (they cannot be interpreted literally in spatial terms) but rather as a kind of result PP. This suggests that the same kind of result PP could also combine with other change of state verbs, including verbs of change of position (7) and verbs of the *hide* class (8). In (15), where the verbs describe a change in the object's physical properties (an object is

destroyed, transformed with respect to its color, shape, etc.), the result PP specifies the resulting state of that change, i.e. the acquired physical property of the object (its consistency, color, shape, etc.). With change of state verbs that allow motion to be inferred, however, the object undergoes a change in position or some other kind of change that does not affect it physically (the object becomes hidden, sealed up, buried, etc.). With such verbs, the result PP is not associated with a physical property (physical properties remain intact) but describes a location where the object ends up by the time the change is completed.[10]

On this account, the alternation between locational and directional PPs is due to the fact that the endpoint of motion coincides in the case of the verbs under investigation with the location where the lexicalized change of state takes place. Because of this semantic affinity (the directed motion is understood to end where the change of state takes place), the use of locational vs. directional PPs can be treated as an alternation. With verbs that describe changes in physical properties, the result PP does not have a spatial interpretation and therefore differs significantly in its meaning from a locational PP. Due to this difference, speakers of Russian do not treat the use of directional and locational PPs as semantically equivalent with verbs of change in a physical property.

There is some additional evidence for distinguishing between directional PPs that are used with change of location verbs (goal arguments) and those that occur with non-physical change of state verbs (results). One striking difference between the result PPs with a spatial reading and goal arguments has to do with their compatibility with descriptions of sources of motion. Typically, any change of location that has an endpoint also has a starting point; hence, we might expect a verb that takes a goal argument to be equally compatible with a description of the starting point of motion. In (16), regular motion verbs (with and without prefixes) can combine with either goal or source phrases. They can also occur with both at the same time.

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[10] Besides the endpoint of motion, the result PP can specify the resulting position, namely, the part of the object that ends up providing support to it, cf. (xi) vs. (xii).

(xi)	*Koška*	*ležit*	*na*	*boku*	/	*na*	*spine*	
	cat	lies.IPFV	on	side.LOC		on	back.LOC	
	'The cat is lying on its side / back.'							
(xii)	*Koška*	*legla*		*na*	*bok*	/	*na*	*spinu*
	cat	lay.down.PFV		on	side.ACC		on	back.ACC
	'The cat lay down on its side / back'							

(16) a. *Sobaka vy-bežala iz doma / vo dvor*
dog out-ran.PFV out.of house.GEN in yard.ACC
'The dog ran out of the house / into the yard.'

b. *Sobaka v-bežala so dvora v dom*
dog in-ran.PFV from yard.GEN in house.ACC
'The dog ran in from the yard into the house.'

c. *Mal'čik bežit iz magazina / v školu*
boy runs.IPFV out.of store.GEN in school.ACC
'The boy is running from the store / to school.'

d. *Gruzovik vezët brëvna iz lesa v derevnju*
truck carries.IPFV logs from forest.ACC in village.ACC
'The truck is carrying logs from the forest to the village.'

In contrast to verbs that entail or implicate a change of location, verbs of change of position do not freely combine with descriptions of sources of motion. In (17), no source PP can be used either in combination with a goal phrase or on its own.

(17) a. *Položi ključi (*so stula) na stol*
put.PFV keys from chair.GEN on table.ACC
'Put the keys (*from the chair) on the table.'

b. *Sjad' (*s kresla) na divan*
sit.down.PFV from armchair.GEN on sofa.ACC
'Sit down (*from the armchair) on the sofa.'

The difference in the treatment of sources follows straightforwardly from our analysis of the directional PPs in (17) as result PPs. Goal and source arguments are typically licensed by verbs that entail or implicate a change of location, hence their similar distribution. Result PPs, however, are licensed by change of state verbs, which often cannot combine with a source phrase. In (18), a transformation verb, which describes a change in physical properties of the object, is compatible with a result PP but does not allow the initial state to be expressed as a source PP.

(18) *Razrež' bumagu na poloski (*iz tselogo)*
cut.PFV paper on strips.ACC out.of whole.GEN
'Cut the paper into strips (*from a whole).'

The correlation between compatibility with a source argument and restrictions on the expression of endpoints of motion receives further support from the use of prefixed verbs in (19).

(19) a. *Pere-loži* *ključi* *so* *stula* *na* *stol*
PERE-put.PFV keys from chair.GEN on table.ACC
'Take the keys from the chair and put them on the table.'

b. *Pere-sjad'* *s* *kresla* *na* *divan*
PERE-sit.down.PFV from armchair.GEN on sofa.ACC
'Move from the armchair to the sofa.'

As we saw in the previous section, verbs with the prefix *pere-* differ from their counterparts in one crucial property: they entail a change of location (the verb *pere-saživat'sja* means 'change seat, go sit in a different place'). As predicted by the contrast in meaning, verbs entailing a change of location, but not simple change of position verbs, are compatible with descriptions of the source of motion (since they select for both goal and source arguments). This difference once again suggests that the construction in (17) differs from that in (19): the directional PP is a result phrase in the former but a goal argument in the latter.[11]

To sum up, I showed that the use of directional phrases is not restricted to expressing goal arguments of motion verbs but extends to certain kinds of result. Unlike goal arguments, which are in general compatible with descriptions of sources of motion, result PPs do not have to be interpreted in spatial terms and are in general incompatible with descriptions of sources. In other words, verbs that lexicalize motion license goal and source arguments, while change of state verbs are modified by result PPs. This difference corresponds to the different interpretation of motion with the two types of verb. With goal arguments, the change of location event is coextensive with another event or directly caused by it (it is part of the verb's basic or extended meaning). With result PPs, the change of location need not be coextensive with the event of change of state and never

[11] The pattern found with change of state verbs may create an appearance of a source/goal asymmetry: verbs of putting occur with directional phrases but not with descriptions of source of motion. I suggest that this appearance is due to the fact that apart from being expressed as goal arguments, endpoints of motion can be introduced by result PPs.

follows it: the specific position in space is acquired along with the change of state, and not after it.

3. Directional vs. locational: the choice of goal-marking strategy

3.1. Event construal

Up to now I was concerned with the status of directional PPs when they are used with verbs from different lexical classes. In this section I turn to the difference between locational and directional PPs when they appear, with a similar meaning, with verbs of change of state. Are the two expressions equivalent when the change of state is accompanied by a change of location, and if not, what determines their distribution?

The directional vs. locational alternation with change of state verbs is due to the coexistence of two different strategies of expressing the endpoint of motion. The use of a directional PP (more precisely, a result PP interpreted in spatial terms) is an instance of overt lexical coding (a satellite-framed construction). With a locational PP, the fact of motion is not expressed overtly but can be inferred from context. In this section I address factors that influence the choice between the two strategies with verbs that in principle allow for both alternatives. In particular, I distinguish between factors related to event construal, on the one hand, and structural factors related to general availability of a competing option, on the other.

Slavic languages are not unique in providing alternative ways of expressing the endpoint of motion with certain verbs. The alternation between a satellite-framed construction, on the one hand, and a construction that does not encode the directional meaning but relies on contextual inference, on the other, is attested in a variety of different languages. To give just two examples, a similar alternation is found in English and in Ancient Greek, where the goal of motion is typically encoded with a specialized preposition or P + case combination. The use of the satellite-framed strategy is illustrated

in (20a) and (21a); in the (b) examples, the endpoint of motion is described by a PP that normally encodes static locations.[12]

(20) English

a. John put the box into his pocket.

b. John put the box in his pocket.

(21) Ancient Greek (Smyth 1920: 368; Luraghi 2003: 66)

a. Specialized P+case combination:

eis hála *lúmata* *bállon* (Hom. Il.1.314)

into sea.ACC water.used.in.washing.ACC throw.IMPF.3PL

'They threw the dirty water into the sea.'

b. P + case combination generally associated with static locations:

kaì tà *mèn* ***en purì*** *bálle* (Hom. Od.14.429)

and DEF.ACC.NEU.PL PRT in fire.DAT throw.IMPF.3SG

'And these things he threw in the fire.'

The set of verbs with which both alternative expressions occur, as well as the relative frequency of the use of the two strategies, varies greatly from one language to another. Along with restrictions imposed by individual verbs, the choice of strategy is often constrained by contextual factors pertaining to what can be characterized as conventionalized event construal. Verbs of motion typically describe complex events that involve both a process of motion and a change of location (in some cases, also a causing event). Such complex events can sometimes be described either from the motion perspective or from the perspective of the resulting state (the endpoint of motion), depending, among other factors, on certain properties of the event. For example, in a corpus study of the *in*/*into* variation in English (cf. 20), I argued that *in* is less likely to mark a goal when the event described involves a prominent path or is of considerable duration (Nikitina 2008), i.e. when the event is more likely to be construed from the motion perspective. Various factors of similar kind can be expected to affect the choice of strategy in other languages, including Russian.

[12] I do not claim, of course, that in all such languages the use of a directional PP in alternation with a locational one is equivalent to the use of a result PP in Russian. This is clearly not so in English, where both *into* and *in* can introduce goal arguments (Nikitina 2008). Hence, the superficially similar alternation may reflect different underlying phenomena in the three languages.

The difference in the construal of motion events is analogous in some respects to differences associated with various forms of grammatical aspect. Some kinds of event can be described in different aspects, e.g., in the progressive or in the perfect, depending on context-specific construal, while other kinds of events are more likely to be described by a particular aspectual form (e.g., punctual events tend to be described in the perfect rather than in the progressive).

Among the factors that favor the use of locational as opposed to directional PPs is the intended duration of the resulting state. The directional PP is more likely to be used in examples where the resulting location is temporary, while the locational marking is associated with relatively permanent results. In (22), the "static" description is more compatible with the event of placing a vase of flowers on the table (which is more likely to be construed, out of context, as having a relatively long-lasting result) than with the event of setting up a table for dinner (which tends to be construed as having a relatively short-term result unless more specific context is provided). The judgments, however, appear to be rather subtle, suggesting a need for a more careful experimental or corpus study.

(22) a. *Postav' vazu / cvety na stol / na stole*
put.PFV vase / flowers on table.ACC on table.LOC
'Put the vase / flowers on the table.'

b. *Postav' časku na stol / ??na stole*
put.PFV cup on table.ACC on table.LOC
'Put the cup on the table.'

Another factor relevant for the choice of expression is information structure. In a study conducted by Blazhev (1988) 10 native speakers of Russian were asked to choose between accusative and locative marking in the following pair of sentences.

(23) a. *V kuxne na stenu / na stene ja povesil časy*
in kitchen.LOC on wall.ACC on wall.LOC I hang.PFV clock
'In the kitchen on the wall I hang a clock.'

b. *Ja povesil časy v kuxne na stenu / na stene*
I hang.PFV clock in kitchen.LOC on wall.ACC on wall.LOC
'I hang the clock in the kitchen on the wall.'

The word order difference between the two sentences corresponds to a difference in information structure: in (23a), but not in (23b), the endpoint of motion ('on the wall') is topicalized, along with the modifying location ('in the kitchen'). The results of the study are presented in Table 3. They show a stronger preference for the locative marking when the PP is included in the topic (23a), suggesting that backgrounding the resulting location (by topicalizing it) favors the use of locational PPs. This result is consistent with the event construal hypothesis: (23b) is more easily construed as providing information about the new location of the clock, i.e. about the change of location component of the complex event.[13]

Table 3. Speaker judgments on (23), based on Blazhev (1988: 64-5)

	locative only	accusative only	loc. or acc.
sentence (23a)	9	0	1
sentence (23b)	5	0	5

Factors related to conventionalized event construal are extremely difficult to characterize in precise terms, and a thorough investigation is needed to establish the relationship between the properties of motion events and the way of encoding the endpoint of motion.

3.2. Type of preposition as an additional factor in the variation

In the previous section I argued that the alternation between locational and directional PPs is partly constrained by factors that influence the way the complex motion event is linguistically construed. Such factors do not, however, account for all of the variation; moreover, they appear to play a significant role in a limited number of contexts. Overall, the use of locational PPs in contexts involving motion is rather restricted in Russian (it is extremely rare compared to Polish, where locational PPs are actually preferred with verbs of putting, cf. Toporov 1961: 295). For example, locational PPs with the preposition *v*

[13] Blazhev discusses a number of other factors that can be subsumed under the notion of event construal, including aspectual characteristics of the event (96-7), the relative salience of displacement as opposed to change of position (90-102), the distance between the theme and its intended resulting location (longer distances favor the directional marking, 104-6), and many others (see also Israeli 2004).

'in' rarely occur in examples involving a change of location; they are invariably ruled out in (24).

(24) a. *?? Položi ključi v korzine / v stole*
put.PFV keys in basket.LOC in table.LOC
'Put the keys in the basket / in the table.'

b. *?? Postav' čašku v rakovine / v xolodil'nike*
put.PFV cup in sink.LOC in refrigerator.LOC
'Put the cup in the sink / refrigerator.'

One might assume, based on such examples, that locational PPs are dispreferred with change of state verbs and only appear marginally in a small set of contexts. The account developed in the previous sections, however, relies heavily on the assumption that both directional and locational PPs are available with change of state verbs, and it is only due to the relative prominence of the change of location component in the complex event that the locational PP is avoided. On that account, the event construal associated with (24) strongly favors expressing the endpoint of motion by a result PP, to the exclusion of the locational variant. But are we justified in assuming that the locational variant is underlyingly available in examples like (24), in spite of the fact that it is unacceptable?

The answer to this question becomes clear when evidence from a wider range of prepositional phrases is considered. As I briefly discussed in section 1, locative prepositions differ in their inherent directional value. Some prepositions, including *v* 'in' and *na* 'on', can introduce either directional or locational phrases, depending on the case of their complement (accusative in directional PPs, locative in locational PPs). Other prepositions do not allow the case of their complement to vary and introduce only one kind of PP (see again Table 1). The preposition *k* 'toward', for example, takes a complement in the dative case and introduces directional PPs. A number of prepositions, including *rjadom s* 'near', *pered* 'in front of', and *nad* 'above', introduce locational PPs only. Such prepositions cannot be used with verbs of motion to introduce the endpoint of motion, cf. (25).[14]

[14] The prepositions in question are incompatible with the meaning of endpoint of motion independently of the verb's prefix or aspectual class: they cannot introduce goals with any verbs that lexicalize motion.

(25) *Mal'čik pribežal *pered školoj / *rjadom so školoj*
boy ran.PFV in.front.of school.INSTR near school.INSTR
'The boy ran to school / *to in front of the school / *to near the school.'

If my analysis is correct and certain change of state verbs can indeed express the endpoint of motion with either directional or locational PPs, we would expect them to combine freely with the unambiguously locational PPs, since no directional PP is available in such cases to express the same meaning. We would then expect inherently locational prepositions to be acceptable in examples like (24) independently of any considerations relating to the event construal. If, on the other hand, change of state verbs impose some additional restrictions on the use of locational phrases, PPs with unambiguously locational prepositions should be incompatible with them just like the locational PPs in (24).

The crucial data is provided in (26). It supports the former hypothesis and rules out the latter.

(26) a. *Položi ključi pered korzinoj / rjadom s korzinoj*
put.PFV keys in.front.of basket.INSTR near basket.INSTR
'Put the keys in front of / near the basket.'

b. *Postav' čašku pered rakovinoj / nad rakovinoj*
put.PFV cup in.front.of sink.INSTR above sink.INSTR
'Put the cup in front of / above the sink.'

The contrast with (24) shows that acceptability of a locational phrase with a change of state verb is dependent on the actual preposition used, and in particular, on the availability of a competing (directional) variant for describing the same resulting position. The apparently categorical pattern in (24) is explained not by additional *restrictions* on locative marking but rather by a *preference* for the directional variant. When the same configuration can be described, using the same preposition, either in a directional or in a locational phrase, the locational PP may be dispreferred. When the directional equivalent is not available (as defined by the lexical properties of the preposition), the locational variant is invariably acceptable. This once again supports the initial hypothesis that both variants are available with change of state verbs, and the choice between them is determined in context based on a number of factors, including

event construal (only relevant when both variants are available) and availability (and relative markedness) of the competing variant. A full account of the directional vs. locational alternation should address differences between individual prepositions as well as the more general pattern.

4. Conclusion

The data discussed in this paper has important implications for the study of the typology of motion expressions. It suggests that the satellite-framed vs. verb-framed distinction does not provide a full account of cross- or intra-linguistic variation in encoding endpoints of motion, since it only applies to instances of overt encoding of the directional meaning. It is not sufficient, however, to explain examples where the endpoint of motion is not encoded either by a specialized satellite or in the verb. The fact that a change of location can be inferred with locational PPs with change of state verbs suggests that an endpoint of motion does not have to be encoded overtly and a language may rely on contextual inference rather than on lexical encoding of the directional meaning.[15]

The study demonstrates once again that the set of expressions a language may use to describe directed motion is typically not limited to one construction. Alternative ways of expressing the same meaning can be used with different or partly overlapping classes of verbs. Accordingly, in describing the use of competing strategies in Russian I distinguished between (i) lexical constraints imposed by verbs of different classes, and (ii) factors involved in the choice of a variant when more than one option is allowed. This distinction turns out to be essential for characterizing the use of locational PPs to describe endpoints of motion.

The lexical constraints determine the set of verbs that can combine with either directional or locational PPs without a difference in meaning. I suggested that the relevant distinction is that between goal arguments of motion verbs and endpoints of

[15] For examples of inference of the directional meaning based on broader context, see Jones (1983) on French, Aske (1989) on Spanish, Nikitina (2008) on English; additional difficulties with applying the satellite-framed vs. verb-framed distinction to different languages are discussed in Zlatev and Yangklang (2004); see also references therein.

motion associated with verbs of non-physical change of state. Goal arguments must be expressed by directional PPs. Endpoints of motion associated with change of state verbs can be expressed by directional result phrases; alternatively, a change of state verb can be modified by a locational PP, leaving the event of motion to be inferred. This difference is summarized in Table 4.

Table 4. Interpretation of directional and locational PPs

Verb class	Type of PP	Interpretation
motion verbs	directional	goal argument
change of state verbs	directional	result; change of location brought about along with a change of state
	locational	static location; change of location can be inferred but is left unexpressed

The distinction between goal arguments and results correlates, rather surprisingly, with a whole set of factors, namely, (i) with acceptability of the locational marking for endpoints of motion, (ii) with acceptability of descriptions of source, and (iii) with the way of interpreting motion as coinciding, following, or preceding the additional event described by the verb.

Finally, in cases where both locational and directional PPs can express the endpoint of motion with a given verb and a given preposition, the choice is determined by event construal, or the relative conceptual prominence of different subparts of the complex motion event. Where the resulting location can only be described by an inherently locational preposition, the locational PP is used independently of other factors.

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