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Space-Time Asymmetries in Russian Prepositions: Preliminary Analysis*

If a good linguistic article raises more questions than it can answer, the present article is excellent. I demonstrate that Russian prepositions display systematically different case government in spatial and temporal constructions. These space-time asymmetries give rise to a number of questions about the relation between space and time in language and cognition. To what extent do speakers and languages recruit spatial concepts when speaking and thinking about time? Do Russian prepositional constructions reflect a dynamic or stative conceptualization of time? How do the constructions under scrutiny relate to the philosophical debates concerning “substantial” and “relational” theories about time? I will return to these questions in section 5. However, first it is necessary to establish space-time asymmetries for *za* ‘behind’ (section 1), *pod* ‘under’ (section 2), *na* ‘on’ (section 3) and *v* ‘in’ (section 4).

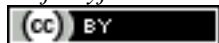
1. Space-time asymmetries: *za* ‘behind’

The focus of this paper is the prepositions *za* ‘behind’, *pod* ‘under’, *na* ‘on’ and *v* ‘in’, which are chosen because they govern two different cases (accusative versus instrumental/locative) and because they are widely used in both spatial and temporal constructions.¹ Let us first consider the preposition *za*, which provides a good illustration of space-time

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¹ We will not discuss the preposition *o* ‘about’, which is not much used in temporal constructions in Contemporary Standard Russian. However, as pointed out by Endresen (2011) temporal adverbials like *o tu èpoxu* ‘at that time’ are occasionally used by contemporary writers and are attested in the Russian National Corpus:

Возможно, **o ту эпоху** крещение в греческую веру мало к чему обязывало.
‘Possibly, **at that time** adoption of Christianity did not imply serious obligations.’ (V. P’ecux 2003)



asymmetries. In spatial adverbials, this preposition is used in examples of the following type:²

- (1) Олег стоял **за домом** и слышал шаги полицейского.
‘Oleg was standing **behind the house** and could hear the footsteps of the policeman.’ (Fadeev 1943-1951)
- (2) Их голоса затихли, они зашли **за дом**.
‘Their voices faded away, they went behind the house. (Žemajtis 1977)

In both (1) and (2), *za* describes a relationship between two arguments, a person and a location. In keeping with the terminology of cognitive linguistics (cf. e.g. Langacker 2008), I will refer to the primary argument (the person) as the preposition’s “trajector”, and the secondary argument (the location) as the “landmark”. The relationship between the trajector and the landmark is different in (1) and (2). In (1) we are dealing with a stative relationship insofar as the trajector is located inside the area defined by the preposition and the landmark. In (2), on the other hand, the relationship is dynamic, since the trajector follows a path described by a verb of motion so as to end up inside the area behind the house. The instrumental and accusative cases are used contrastively; instrumental indicates stative location while accusative describes movement into a location.

Consider now the following example where *za* is used in a temporal construction that specifies the age of the preposition’s trajector:

- (3) Ему было **за восемьдесят**, с девятьсот четвёртого года он работал в детской больнице
‘He was **beyond eighty**; since 1904 he had worked in a children’s hospital.’

Metaphorically speaking, this construction indicates a location in time. The landmark is a numeral that stands for a “point in time” (a person’s age), and the construction signals that the person is “behind” or “beyond”

² Unless otherwise indicated, numbered examples in this article are excerpted from the Russian National Corpus (www.ruscorpora.ru). For the convenience of the reader, we provide for each example the publication date and an indication of the source from which the example is taken. For examples from fiction, we give the name of the author, while for examples from non-fiction the name of the journal or newspaper is provided.

this point, i.e. older than the age denoted by the numeral. On the face of it, this looks parallel to the stative location construction in (1) since the copula verb in (3) is as stative as the position verb *stojat* 'stand' in (1). Indeed, there is no motion verb indicating change of location in (3), and the use of such a verb in this construction would not be felicitous. Against this background, one would expect the instrumental case in (3) in the same way as in (1). However, this prediction is not borne out by the facts; the accusative is used in (3), and the instrumental would be ungrammatical in this construction.

The comparison of (1), (2) and (3) demonstrates that case government is different in spatial and temporal constructions. This is what I call a "space-time asymmetry". With regard to *za*, the asymmetry is an example of neutralization. While in spatial constructions the accusative and instrumental cases are used contrastively so as to signal an opposition between stative location and dynamic movement, in the temporal construction in (3) the case opposition is neutralized insofar as only the accusative is attested.³

Conventional wisdom in cognitive linguistics has it that the domains of space and time are related in terms of a metaphor, which is often represented as the formula TIME IS SPACE (Haspelmath 1997, but see Fauconnier and Turner 2008 for detailed critical discussion). The idea is that there are a number of mapping relations from the source domain of space to the target domain of time. In other words, when thinking and speaking about time we draw on our experience with space. Are case asymmetries of the type I have illustrated in (1)-(3) a counterexample to this idea? Does the neutralization of the case opposition imply that there is no conceptual relationship between the spatial and temporal constructions? I suggest that both questions can be answered in the negative. While examples like (3) show that temporal constructions are not mere mirror images of spatial constructions, denying a conceptual relationship between spatial and temporal constructions would deprive us of an opportunity to capture the important generalization that the use of

³ Notice that we use the term "neutralization" the same way as it is used in e.g. phonology. For instance, in languages like German and Russian the opposition between voiced and voiceless obstruents is said to be neutralized word-finally since only voiceless obstruents are attested in this position.

the accusative in (3) is motivated by the inherent dynamicity of the conceptualization of time. In this connection, it is relevant to mention that the construction with *za* followed by a numeral in the accusative is frequently used in describing speed: *za vosem'desjat* 'beyond eighty (kilometers per hour)'. Obviously, speed is a dynamic concept involving movement in space. Ageing is equally dynamic in that it involves a gradual change of state from young to old. The temporal construction in (3) implies that the trajector has passed the landmark (the age of eighty years). Metaphorically speaking, we are dealing with a "moving ego" (cf. e.g. Lakoff and Johnson 1980, Lakoff 1993) who travels through time. The motivation for the accusative case in (3) is this dynamic conceptualization of time. The fact that the locative is infelicitous in constructions like (3) finds its motivation in the unfortunate circumstance that ageing cannot be stopped. The moving ego will continuously be getting older throughout his or her life. The difference between the spatial and temporal constructions is that dynamic verbs of motion are possible in spatial constructions, but not in (3). If we assume a dynamic conceptualization of time, this fact can be accounted for. Since the conceptualization of ageing is inherently dynamic, the use of a dynamic motion verb would be redundant. In space, on the other hand, it is necessary to specify the dynamicity by using a motion verb, since movement is not an inherent aspect of the conceptualization of space.

Before we leave *za*, let us consider two further temporal constructions, which testify to a dynamic conceptualization of time. Example (4) illustrates the first type:

- (4) А Игорь Алтынов вспомнил вдруг, как когда-то прочитал **за три дня** учебник географии.
'And Igor Altynov suddenly remembered how he once had read a geography textbook **in three days**.'

Example (4) describes an accomplishment in the sense of Vendler (1957). The reading progresses for three days until everything that needed to be read is read. The landmark of the preposition is a time span (three days) and the trajector is an event (reading). A reasonable interpretation is that the event unfolds until a point in time when the result is reached, and that the result (the accomplishment) is behind or beyond this point, which

represents a metaphorical border.⁴ The idea that it is the result that is behind the landmark gains support from a comparison of (4) with (5):

- (5) Он читал **три дня**.
 ‘He was reading **for three days**.’ (Metropolitan Anthony 1985-1995)

In both (4) and (5) we are dealing with a process of reading that goes on for three days, but only in (4) is the preposition *za* used. If we assume that *za* refers to the result, we can explain this; in (5) we have an imperfective verb that does not describe an event that produces a result, and since there is no result, there is no motivation for the use of *za*.

The conceptualization in (4) is dynamic in the sense that the reading process unfolds gradually until the result is reached. Against this background, one would expect the accusative, and this prediction is indeed borne out by the facts. In (4), *za* governs the accusative, while the instrumental would not be felicitous in this construction. Since only the accusative is used in the temporal construction in (4), the case opposition we have in spatial constructions is neutralized in the temporal domain. In other words, we are dealing with a space-time asymmetry.

Our last example of a space-time asymmetry with *za* is illustrated in example (6):

- (6) Анисим приехал **за три дня до свадьбы**.
 ‘Anisim arrived **three days** before the wedding.’ (Chekhov 1900)

In this construction, the trajector is an event (*priexal* ‘arrived’). The landmark of *za* is a time span that measures the time between the trajector event and another event (a wedding) that is the landmark of the preposition *do* ‘before’. Again, only the accusative is used after temporal *za*. The use of the accusative may reflect a dynamic construal of time.

⁴ Notice that the interpretation of the preposition in (4) involves both metonymy and metaphor. We have end point metonymy in the sense that the phrase *tri dnja* ‘three days’ stand for the end point of the whole time span. We have metaphor insofar as the idea of a “point in time” is recruited from space.

2. Space-time asymmetries: *pod* ‘under’

In the same way as *za*, *pod* ‘under’ combines with the accusative or the instrumental case in spatial constructions.

- (7) Я сидел **под столом** со своей тарелкой.
‘I was sitting **under the table** with my plate.’ (Kunin 1998-2000)
- (8) Шпион **залез под стол**, но нигде не нашел никаких следов от обеда.
‘The spy climbed **under the table**, but didn’t find any traces of dinner.’ (Družkov 1964)

As shown in (7), the instrumental involves a stative situation where the trajector is located under the landmark. The accusative is used in dynamic situations such as (8) where the trajector moves into the location under the table.

While in spatial constructions there is an opposition between the accusative and the instrumental, this opposition is neutralized in temporal constructions with *pod*. As shown in (9) and (10), the accusative is used when the landmark of the preposition is a temporal noun like *večer* ‘evening’ or a numeral that specifies age. As pointed out by Rakhilina and Plungian (forthcoming), the instrumental case is infelicitous in such constructions:

- (9) **Под вечер** я вышла на улицу, чтобы купить в близлежащей лавочке немного кофе.
‘**Toward evening** I went out to get some coffee from the nearest store.’ (Ščerbak 2010)
- (10) Болгарину было **под 80** или даже под 90 лет.
‘The Bulgarian was reaching his 80-ies or even 90-ies.’ (Leont’ev 1870)

Since temporal constructions with *pod* are discussed in great detail in Rakhilina and Plungian (forthcoming), for the purposes of the present paper I will delimit ourselves to analyzing the age construction in (10), which is a counterpart to the age construction with *za* (cf. (3) above). Two questions are important: to what extent does the temporal construction have spatial motivation, and what is the motivation for the use of the accusative case? As for the first question, the use of *pod* in constructions

like (10) may be motivated by the conceptual metaphor LESS IS DOWN (and, indirectly, its counterpart MORE IS UP, Lakoff and Johnson 1980). Our experience with spatial orientation is recruited for speaking and thinking about scalar measurement, in this case measurement of age. The use of the accusative may be motivated by the dynamic nature of our conceptualization of time. As pointed out in the previous section, we may assume that a moving ego travels through time and passes points in time on his or her way.⁵ However, is it possible to find any concrete evidence for an analysis along these lines? Consider the Figure 1 which depicts the spatial relationships described by the four prepositions *pered* ‘in front of’, *za* ‘behind’, *pod* ‘under’ and *nad* ‘above’:

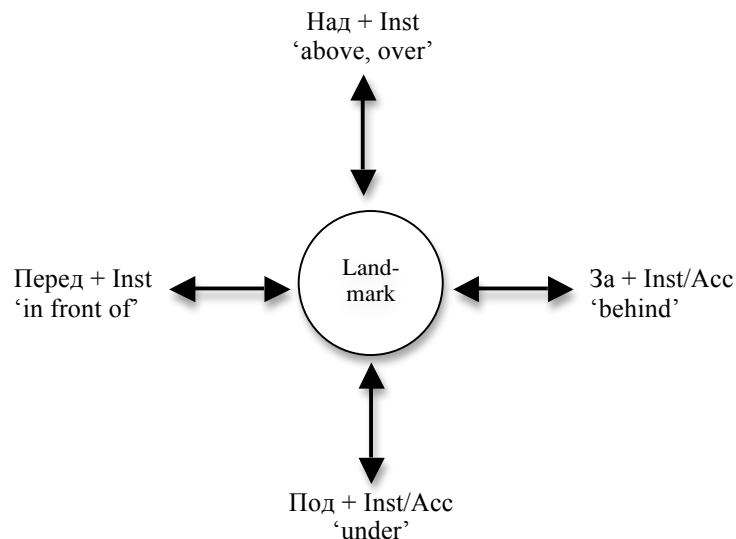


Figure 1: Four spatial prepositions

As shown in the figure, the four prepositions constitute two pairs with regard to spatial orientation. While *pered* and *za* concern horizontal orientation in space, *pod* and *nad* refer to the vertical dimension. If temporal constructions were a mere mirror image of constructions for

⁵ Notice in passing that Russian also has evidence for the “opposite” dynamic construal of time whereby events move towards the ego:

— вот радость! ... Наше Рождество подходит издалека, тихо.
'Oh happiness! ... Our Christmas is approaching from afar, quietly.' (Šmelev 1927-1944)

location in space, we would expect the age constructions in (3) and (10) to be parallel; either both should refer to the horizontal dimension or both should involve vertical orientation. However, as shown by examples like (3) and (10), this prediction is not borne out by the facts. On the contrary, the construction that describes that the trajector is older than a certain age uses the “horizontal” preposition *za* ‘behind’, whereas the “vertical” preposition *pod* ‘under’ is used to express that the trajector is younger than a certain age. However, if we assume that time is construed in dynamic terms, we are in a position to account for the choice of prepositions in the relevant constructions. Since time is dynamic and the accusative case involves dynamicity, we would expect prepositions that govern this case to be used in temporal constructions. This is exactly what we see; as shown in Figure 1, the prepositions that appear in the relevant temporal constructions are the two prepositions that combine with the accusative, while the two prepositions that govern only the instrumental (*pered* ‘in front of’ and *nad* ‘above’) are not used in these temporal constructions.

3. Space-time asymmetries: *na* ‘on’

We have now discussed space-time constructions for the two prepositions *za* ‘behind’ and *pod* ‘under’, which combine with the accusative and the instrumental cases. In this and the following section we turn to the prepositions *na* ‘on’ and *v* ‘in’ which govern the accusative and locative cases. In spatial constructions, *na* is used in situations where the landmark represents a horizontal or vertical surface. As shown in (11) and (12), the locative is used in stative situations where the trajector is in contact with the surface:

- (11) Неоконченное письмо лежит **на столе**.
 ‘An unfinished letter is lying **on the table**.’ (Kaverin 1949-1956)
- (12) Даже картина висела **на стене**: отличная репродукция с “Сикстинской мадонны”.
 ‘There even was a picture hanging **on the wall**, an excellent reproduction of the Sistine Madonna.’ (Grekova 1960)

In dynamic situations where the trajector moves into such a position, the accusative is used, as illustrated in (13) and (14)

- (13) Я молча положил **на стол** письмо Норы.
 ‘Without a word I put Nora’s letter **on the table**.’ (Beljaev 1929)
- (14) — Правильно, — сказал он и повесил **на стену** портрет Хрущева.
 ‘Right, he said, and hung a picture of Khrushchev **on the wall**.’

Among the temporal constructions with *na*, I will focus on two, which for convenience I refer to as the “week construction” and the “festival construction”:

- (15) Предварительный ответ на этот вопрос будет дан уже **на этой неделе**.
 ‘A preliminary answer to this question will be given already this week.’ (*Eženedel’nyj žurnal* 2003)
- (16) **На Пасху** император получал ежегодно из рук Фаберже два сюрприза.
 ‘**At Easter** the Emperor annually received two surprises personally from Fabergé.’ (*Iskusstvo kino* 2003)

In the previous sections, we have seen that *za* and *pod* govern only the accusative in temporal constructions. Examples (15) and (16) show that *na* is different, insofar as it combines with the locative case in (15) and the accusative (16). However, even though both cases are attested in temporal constructions with *na*, we are nevertheless dealing with a space-time asymmetry, because the two cases are in complementary distribution. The week construction always has the locative, while the festival construction takes the accusative. In other words, the choice of case is predictable from the landmark of the preposition.⁶ In temporal constructions, for a given landmark only one case is possible, whereas in spatial constructions for a given landmark both the accusative and locative cases are attested. In other words, the two cases are contrastive in spatial constructions, but not in the domain of time, and in this sense we have a space-time asymmetry.

In our analysis of *za* and *pod*, I have suggested that time is construed in dynamic terms, and that this motivates the use of the

⁶ This is a slight simplification. Although it is true that *nedelja* only combines with the locative in temporal adverbials that specify when an event happens (as opposed to, say, how long it takes or how often it occurs), *nedelja* does combine with the locative in other temporal constructions. We return to one such example in (17) below.

accusative case. This analysis carries over to the festival construction in (16), but not to the week construction in (15). How can we account for the use of the locative case in the week construction? While I will not abandon the idea that the use of the accusative in temporal constructions is motivated by the inherent dynamicity in our conceptualization of time, I propose that dynamic construal represents the default, but that a stative construal is possible as well. This hypothesis predicts that in temporal constructions the locative is used in a narrow set of clearly definable contexts, while the accusative is expected to occur in broader and more heterogeneous set of contexts. Since *na* + locative is restricted to one temporal noun, viz. *nedelja* ‘week’, while the accusative occurs with all kinds of festivals and holidays (e.g. *roždestvo* ‘Christmas’ and *novyj god* ‘New year’). Moreover, *nedelja* does combine with the accusative in a construction that specifies the length of a state resulting from the verbal action. Sentence (17), for instance describes the action of arriving which results in a state whereby the subject of the sentence is in a location for a certain time. The temporal adverbial *na nedelju* ‘for a week’ with the accusative measures the length of the stay:

- (17) Триша **приехала на неделю** с группой туристов.
 ‘Triša arrived for a week with a group of tourists.’ (Vojnovič 1999)

Another prediction from the hypothesis that accusative is dynamic and hence the default case in temporal constructions is that the locative should combine with the landmarks that are most suitable for stative location. We will turn to this in the following section, since the preposition *v* ‘in’ provides better opportunities for evaluating this prediction.

4. Space-time asymmetries: *v* ‘in’

The situation for *v* ‘in’ is more complex than for *na* ‘on’, since *v* is attested in a wider variety of temporal constructions and combines with a broader range of nouns with a temporal meaning. In the following, I will delimit myself to temporal adverbials that specify when an event takes place, i.e. a subtype of what Klein (1994: 149, 2009: 65) calls “temporal adverbials of position”. Other types of temporal adverbials specify an

event's duration or frequency. However, before we consider temporal constructions, let us clarify the spatial uses of *v*. As shown in (18) and (19), the preposition combines with the locative when the trajector is included in a three-dimensional space, while the accusative is used to signal that the trajector moves into such a location:

- (18) Он был **в комнате** один.
'He was alone **in the room**.' (Pelevin 1996)
- (19) Таня пропустила момент, когда он вошел **в комнату**.
'Tanya did not notice the moment when he came **into the room**'.
(Емеч 2002)

In temporal constructions, the following phrases are possible responses to the question *Kogda èto slučilos?* 'When did it happen?' (Data in (20) through (27) is adapted from Nessel 2004:287-289):

- (20) В эту секунду 'In this second'
(21) В эту минуту 'In this minute'
(22) В этот день 'On this day'
(23) В этом месяце 'In this month'
(24) В этом году 'In this year'
(25) В этом столетии 'In this century'
(26) В наше время 'in our time'
(27) В атомный век 'in the nuclear age'

As shown by these examples, the locative combines with *mesjac* 'month', *god* 'year' and *stoletie* 'century', while the accusative is used in the remaining examples. Nessel (2004:290) proposes the following generalization:

- (28) The locative is used for extended and bounded time spans; otherwise the accusative occurs.

The property "extended" is necessary in order to distinguish the longer time spans that take the locative (month, year and century) from the shorter time spans that take the accusative (second, minute, day). The property "bounded" characterizes time spans with a definite length and clear-cut boundaries such as months, years and centuries, while temporal nouns like *vremja* 'time' and *vek* 'era, period, age' describe unbounded

time spans.⁷

Although the generalization in (28) appears to be correct, there are three complicating factors (all of which are discussed in greater detail in Nessel 2004): pluralization, modifiers and cyclic versus calendric time. Pluralization, as it were, removes the boundaries from a time span. While *étoť god* ‘this year’ has a definite length and hence clear boundaries, the time span *éti gody* ‘these years’ does not have a definite length and is therefore unbounded. Accordingly, we expect pluralization to combine with the accusative. This prediction is borne out by the facts:

(29) Если бы я знала, что произошло с ним **в эти годы**, я многое бы поняла, наверное.

‘If I had only known what had happened to him in those years, I guess I would have understood a lot.’ (Rybakova 2003)

If a temporal noun is modified by a genitive attribute, the focus moves from quantity to quality, and thus removes the emphasis on temporal boundaries. Thus, *god smerti Stalina* ‘the year of Stalin’s death’ emphasizes a qualitative experience rather than the exact length of the time span in question. Accordingly, we expect the accusative. Again, this prediction is borne out by the facts:

(30) В пятьдесят третьем, **в год смерти Сталина**, я попал под амнистию, мне скостили три года, и в пятьдесят пятом я оказался на свободе.

‘In fifty three, **the year Stalin died**, they shortened my prison confinement by three years and I was given amnesty.’ (Pristavkin 2005)

⁷ Notice in passing that *vek* is also used in the meaning ‘century’. In this meaning, *vek* occurs in the locative: *v dvadcatom veke* ‘in the twentieth century’ (cf. Nessel 2004:290 for discussion). The generalization in (28) is theoretically interesting; as pointed out by Turner (2002) in his review of Talmy (2000) an important claim in cognitive semantics is that the grammar provides “topological rather than Euclidean cues: English deictics *this* and *that*, the English preposition *across*, and the English past tense inflection *-ed* are all closed-class items that are neutral with respect to magnitude of space or time, allowing us to say with equal felicity, ‘This ant crawled across my palm’ or ‘This bus drove across the country.’” On the face of it, the temporal use of the Russian locative appears to challenge Talmy’s generalization (which was originally expressed in Talmy 1977), since the use of the locative is sensitive to the metrical length of the time span in question (“longer than a week”). However, further discussion of this theoretical point is beyond the scope of the present study.

Temporal nouns like *mesjac* ‘month’, *god* ‘year’ and *stoletie* ‘century’ refer to calendric time, insofar as they are part of an elaborate system humans have developed in order to be able to locate events in time and measure the distance between them as exactly as possible. The seasons, on the other hand, are not part of the “artificial” calendar in the same sense, but rather represent the cycle from winter through spring, summer and fall and back to winter again. While the purpose of calendric notions like months and years is quantification, the seasons instead focus on a qualitative experience. Each season is characterized by certain weather conditions that have important implications for human behavior and culture, and affect anything from clothing to agriculture. Since the seasons emphasize quality rather than quantification, we expect them to combine with the accusative. This is in accordance with the facts:

- (31) **В это лето** они действительно были счастливы.
 ‘**That summer** they were really happy.’ (Beljakov 1998)

From this discussion it emerges that the generalization in (28) is an oversimplification. In more precise terms, the conditions for the use of *v* + the accusative in temporal adverbials of the relevant type can be stated as follows:

- (32) The locative is used for extended and bounded calendric time spans in the singular that do not involve genitive modifiers; otherwise the accusative occurs.

The statement in (32) enables us to draw three conclusions. First, it is clear that in the temporal constructions in question the accusative and the locative cases are in complementary distribution. In other words, we are dealing with a space-time asymmetry of the same type as for *na* ‘on’, the only difference being that the rules for the choice between the two cases are more complicated for *v* than for *na*. The second conclusion concerns the hypothesis that the accusative is dynamic and hence the default case in temporal constructions. In the previous section, I mentioned that this hypothesis implies that the locative should occur in a narrow set of clearly definable contexts, while the accusative is expected in broader and more heterogeneous sets of contexts. The generalization in (32) demonstrates that this is indeed the case. The third conclusion concerns another

implication from the same hypothesis, namely that the locative should combine with the nouns that are the best candidates for stative location in time. What would these “best candidates” be? I surmise that extension and boundedness are relevant parameters. With regard to extension, it stands to reason that it is more natural to be located inside a landmark that is extended. A point, which in its strict geometrical sense does not have any extension, is not something you can be located inside. Larger areas, on the other hand, are well suited for location. If a landmark has clearly defined boundaries, you can with certainty decide whether something is inside or not, so in this sense bounded areas are suitable for location. In other words, we expect stative location to apply to nouns denoting extended time spans with clear-cut boundaries. As we have seen in this and the preceding section, this prediction is borne out by the facts, insofar as the locative is attested for *nedelja* ‘week’ (with *na* ‘on’), as well as *mesjac* ‘month’, *god* ‘year’ and *stoletie* ‘century’.

5. Further questions: discussion and speculation

Since we have now analyzed the use of the prepositions *za*, *pod*, *na* and *v* in a number of spatial and temporal constructions, we are now in a position to return to the questions that were listed in the beginning of the article. The first question was stated as follows:

- (33) To what extent do speakers and languages recruit spatial concepts when speaking and thinking about time?

The analysis I have proposed shows that temporal constructions are not mere mirror images of spatial constructions. If they were, we would not expect the space-time asymmetries that turn out to be characteristic of the prepositions under scrutiny in the present study. Although I have shown that grammatical cases are used in systematically different ways in spatial and temporal constructions, this does not mean that spatial concepts are not relevant for temporal constructions at all. On the contrary, I have suggested that the use of the accusative in temporal constructions captures a dynamic conceptualization of time. This conceptualization draws on spatial notions such as motion along paths. In other words, spatial concepts are clearly relevant for temporal constructions. This is a

conclusion about language. If we assume that language (the way we speak) reflects the way we think, we are in a position to answer the question in (33) in the affirmative. I hasten to add that the data I have presented in this study are linguistic; for the purposes of the present paper I will refrain from further speculations regarding the relationship between language and thought.

Another question emerging from our analysis is this:

- (34) Do Russian prepositional constructions reflect a dynamic or stative conceptualization of time?

Our tentative conclusion is that the constructions we have explored reflect both dynamic and stative construals of time. I have suggested that our conceptualization of time is inherently dynamic and since the accusative is used in dynamic constructions in the spatial domain, it is therefore natural to use the accusative in temporal constructions. At the same time I have identified some examples of temporal constructions with the locative case, which seem to draw on stative location in space. However, while both dynamic and stative conceptualizations seem possible, the evidence we have explored in the present article suggests that dynamic conceptualization of time represents the default option. I hasten to add that our data are limited, so it remains an open question whether other languages behave the same way.

The third question mentioned in the beginning of the article is repeated in (35):

- (35) How do the constructions under scrutiny relate to the philosophical debates concerning “substantial” and “relational” theories about time?

Although it is impossible to do justice to this complex philosophical debate, I note that some versions of the so-called substantial theory describe “spacetime as being like a container for events” whereby the container “exists with or without events in it” (Dowden 2011, see also Markosian 2010). The substantial theory of time has its roots in ancient Greek philosophy and is often associated with Newton’s physics. I speculate that the stative temporal constructions with the locative we have explored in this paper reflect the “substantial” conception of time, insofar

as the relevant linguistic constructions place events inside metaphorical containers. The competing “relational” theory of time construes time in terms of change, which is said to be a necessary condition for the existence of time, cf. Aristotle’s famous dictum that “neither does time exist without change” (*Physics* 218b, cited after Dowden 2011). This theory has had many followers through history, and is often associated with Einstein’s physics. I speculate that the Russian temporal constructions with the accusative, which I have analyzed as dynamic, represent a linguistic counterpart to the relational approach to time, insofar as these constructions focus on change manifest through movement in metaphorical space.

6. Conclusion

In this paper I have discussed the notion of space-time asymmetries and demonstrated that there are systematic differences in the use of cases between spatial and temporal constructions. We have seen that the accusative is the default option in temporal constructions, but that constructions with the locative case are attested as well. Our research bears on three important questions concerning the relationship between space and time in language. First, our analysis suggests that speakers do indeed draw on their spatial experience when speaking and thinking about time. However, space-time asymmetries of the type we have explored in this paper show that temporal constructions are not mere mirror images of spatial constructions. Second, the analysis I have proposed suggests that stative and dynamic conceptualizations of time exist side by side, although in the Russian data we have analyzed the dynamic approach to time seems to be dominant. Third, we have related our findings to the philosophical debate between the “substantial” and “relational” theories of time, and speculated that linguistic constructions provide evidence of the co-existence of both approaches in the cognition underlying linguistic constructions. However, before more definite conclusions can be drawn, it is necessary to investigate a broader range of constructions in Contemporary Standard Russian, and compare these findings with findings from other languages. These questions represent exciting projects for future research.

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**Summary: Space-Time Asymmetries in Russian Prepositions:
Preliminary Analysis**

This study, which focuses on the Russian prepositions *za* ‘behind’, *pod* ‘under’, *na* ‘on’ and *v* ‘in’, shows that there are systematic differences in case usage between spatial and temporal constructions. These space-time asymmetries are related to important questions about time and space in linguistics, cognitive science and philosophy.

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