

## “Cyclic” Time in the History of Russian: Culture and Language Internal Factors<sup>\*</sup>

### Abstract

This article offers a diachronic analysis of the concept of “cyclic” time in Russian, more specifically of temporal adverbials such as *utrom* ‘in the morning’ and *vesnoj* ‘in the spring’ that refer to the diurnal and annual temporal cycles in nature. It is argued that evidence from diachrony bears on important theoretical questions: Is the sensitivity to “cyclic” time in language due to cultural factors? How does the external factor of culture interact with language internal factors in the formation of temporal concepts? The proposed analysis indicates that the linguistic development in Russian does not mirror changes in cultural practices and values. Instead, the main burden of explanation is placed on a language internal factor, namely the general drift towards more analytic constructions in Russian, which I argue paved the way for the concept of “cyclic” time as reflected in the grammar of the Russian language today.

Key words: time in language, temporal adverbials, Russian, diachrony

### 0. Introduction

The concept of “cyclic” time has received considerable attention in linguistics, anthropology and cognitive science. Is the sensitivity to “cyclic” time in languages due to external factors such as culture? Or are language-internal factors more important? The aim of the present article is to shed light on these issues from the perspective of historical linguistics. My contribution can be summarized as follows. First, I demonstrate that Russian syntax is sensitive to “cyclic” time, insofar as temporal adverbials have different syntactic constructions for “cyclic” and “linear” time. Second, I show that this situation in present-day Russian is a relatively recent innovation, since the grammars of Old Church Slavonic and Old Russian were less sensitive to “cyclic” time. Third, it is argued that the increased sensitivity to “cyclic” time in the history of the Russian language does not mirror the development in Russian culture; if anything, Russian culture has become less sensitive to cyclic time since the Middle Ages. On this basis I propose that the sensitivity to “cyclic” time in language is not so much a product of shifting cultural values and practices as it is a result of language internal factors; in Russian, the general tendency towards increased analyticity created an opportunity for the development of a specialized construction for “cyclic” time.

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After a brief discussion of “cyclic” and “linear” time in section 1, I present the situation in Contemporary Standard Russian in section 2. Section 3 explores the Culture Hypothesis, which is then tested against data from the history of Russian in sections 4 through 6. Language internal factors are discussed in section 7, before the contribution of the article is summed up in section 8.

## 1. “Cyclic” and “Linear” Time as a Quality/Quantity Distinction

For the purposes of the present study I will use the term “cyclic time” to refer to seasons and times of the day. The Russian nouns *vesna* ‘spring’, *leto* ‘summer’, *osen* ‘fall’ and *zima* ‘winter’ and their English equivalents are conventionally construed as parts of an annual cycle, whereby spring turns into summer and then fall, which in turn becomes winter before a new cycle begins with spring. In a similar fashion, *utro* ‘morning’, *den* ‘day’, *večer* ‘evening’ and *noč* ‘night’ are thought of as parts of a twenty-four hour cycle that repeats itself (approximately) 365 times a year.

“Cyclic” time is opposed to “linear” time, which involves concepts such as *minuta* ‘minute’, *čas* ‘hour’, *nedelja* ‘week’, *mesjac* ‘month’ and *god* ‘year’ that can be conceptualized as units of measurement on a timeline. Notice that throughout this article I will use quotes for both “cyclic” and “linear” time. Although these traditional terms are meaningful up to a point, there is evidence that seasons and times of the day are not universally conceptualized in terms of cycles, i.e. as circular paths along which time moves around and around. A case in point is the Amondawa tribe in the Amazonas, which has been studied by Sinha et al. (2012). The Amondawas have words for seasons and day parts, but Sinha et al. found no evidence that these notions are conceptualized in terms of cycles:

- (1) “None of our language consultants either verbally described a temporal cycle or produced a physical schematic model (installation) that possessed a circular structure. Rather, the schematization seems to be simply in terms of succession, which may be [...] spatially modeled as a line, though not necessarily a straight one.” (Sinha et al. 2012: 30)

Whereas, according to Sinha et al., “cyclic” time does not universally invoke cyclic structure (i.e. circular representations of temporal concepts that repeat themselves), “linear” time crucially depends on conceptualization in terms of cycles, since units of measurement such as days (in the meaning ‘twenty-four hour long time spans’) and years are based on temporal cycles (cf. Evans 2003: 203 and Evans 2013: 138 for discussion). It appears that it is exactly our ability to construe days and years as cycles that makes it possible to use them as units of measurement on a timeline. While in reality all days are different, we are able to emphasize the similarities and suppress the differences and form generic concepts of identical days that repeat themselves in an endless cycle. These abstract, generic concepts of repetitive “cyclic days” can be placed on a timeline and used to measure time. As demonstrated by Fauconnier and Turner (2008, see also Turner 2014: 221ff.), the formation of abstract concepts such as the “cyclic day” involves complex cognitive processes, which they insightfully analyze as “blends” in their framework of Conceptual Integration. While the details of Fauconnier and Turner’s analysis are

not relevant here, it is important to notice the close relationship between “linear” time and cyclic structure.

At this point one may ask whether the “cyclic”/“linear” distinction is vacuous. However, the distinction has a well-understood biological underpinning. There is extensive research in biology showing that all living beings are equipped with “biological clocks” that are innate and hard-wired into the genome (Foster & Kreitzman 2004: 18). Our “biological clocks” are sensitive both to a circadian rhythm of approximately 24 hours and an annual rhythm of approximately 365 days. This line of research goes back to research carried out in the 1930s by German biologist Erwin Bünning (1906-1990), who coined the term “biological clock”. Experiments indicate that humans default to a rhythm of approximately 24 hours even if light conditions are kept stable. In other words, although our “free-running rhythm” is synchronized by external stimuli (light and darkness), our “biological clocks” are nevertheless operative regardless of whether conditions are stable or not (Foster & Kreitzman 2004: 18).

In view of the fact that “biological clocks” are important for how we organize our lives, it does not come as a surprise that Russian and other languages are sensitive to “cyclic” time (circadian and annual cycles). Nevertheless I suggest that the *term* “cyclic” is somewhat misleading from the perspective of linguistic categorization. Instead, I submit that what we are dealing with in linguistics is essentially a qualitative/quantitative distinction. We have already seen that the label “cyclic” arguably does not provide an accurate description of how Amondawas categorize time. In his seminal study of the conceptualization of time in Bali, Geertz (1966: 47) observed that cyclic notions “don’t tell you what time it is; they tell you what *kind* of time it is”. In a similar vein, Wierzbicka (1980: 103) argued that temporal adverbials involving “cyclic” time spans serve to “characterize the kind of time when something happened, not to specify the time when it happened”. Haspelmath (1997: 26f., see also Johnson 1987: 119ff.) also focused on the qualitative aspects of the day parts and seasons using the term “qualitative periods” to refer to them. Zaliznjak and Šmelev (2005) insightfully analyze the Russian words for day parts as time spans connected to certain activities (sleep, wake up, work etc.). In other words, “cyclic” concepts come with qualitative characteristics that make them suitable for certain activities. Farmers plant in the spring and harvest in the fall. Nights are suitable for sleep and days for work. Skiing is good in winter, while summers are suitable for swimming.<sup>1</sup> The idea of “cyclic” time as qualitative squares with Sinha et al.’s observation that (in Amondawa culture) the “seasonal and diurnal time intervals are best thought of as high-level event categories – ‘happenings’, as it were, in the natural and social world, with which other happenings may coincide, or to which other activities and events are indexed.”

While “cyclic” time is qualitative, “linear” time highlights the quantitative aspect of time measurement. As opposed to the parts of the day and the seasons, which are associated with certain light and weather conditions, “linear” concepts such as minutes, hours and weeks do not come with such qualitative characteristics;

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<sup>1</sup> Different cultures living in different parts of the world have different concepts of seasons, but for the purposes of the present study I limit myself to discussing the seasons that are relevant for the Russian data to be explored in the following sections. See Haspelmath 1997: 113 for discussion.

each second in a minute is the same, as is each minute in an hour. This lack of inherent characteristic qualities makes “linear” concepts suitable for time measurement.

An illustration of the qualitative/quantitative distinction is the *(tomu) nazad* ‘ago’ construction in Russian, which is used to measure the distance to an event in the past. Table 1, which compares data for four “linear” and four “cyclic” time spans, show that in the Russian National Corpus the frame *dva/dve ... (tomu) nazad* ‘two ... ago’ occurs frequently with the “linear” (quantitative) concepts of *čas* ‘hour’, *nedelja* ‘week’, *mesjac* ‘month’ and *god* ‘year’, but almost never with the “cyclic” (qualitative) *vesna* ‘spring’, *leto* ‘summer’, *osen* ‘fall’ and *zima* ‘winter’.<sup>2</sup> I hasten to add that my point is not that it is impossible to use the seasons in the *(tomu) nazad* construction. While it is certainly possible to conceive of contexts where *dve zimy nazad* ‘two winters ago’ are natural (and such examples show up in the corpus occasionally), time measurement is not the primary function of the seasons, which are rather used to denote time spans with certain meteorological qualities that make them suitable for certain kinds of activities (see also Wierzbicka 1980: 100-107 for discussion).

“Linear” time spans	# attestations	“Cyclic” time spans	# attestations
<i>čas</i> ‘hour’	164	<i>vesna</i> ‘spring’	1
<i>nedelja</i> ‘week’	406	<i>leto</i> ‘summer’	2
<i>mesjac</i> ‘month’	338	<i>osen</i> ‘fall’	0
<i>god</i> ‘year’	1769	<i>zima</i> ‘winter’	1
Total	2677	Total	4

**Table 1: Attestations of the frame *dva/dve ... (tomu) nazad* ‘two ... ago’ for four “linear” and four “cyclic” time spans**

Although this brief discussion does not do justice to such complex concepts as “cyclic” and “linear” time, it is sufficiently precise for the purposes of this study. We have seen that “cyclic” notions pertaining to the annual and diurnal cycles are qualitative in nature and highlight the qualitative experience of different kinds of time, while “linear” time involves a quantitative focus on time measurement. In the following, we will see that the “cyclic”/qualitative vs. “linear”/quantitative distinction plays an important role in Russian case syntax.

## 2. Russian Case Syntax and the “Cyclic”/“Linear” Distinction

Since the distinction between “cyclic” and “linear” time is relevant for how individuals structure their lives and communities structure their social activities, it is not surprising that the distinction is reflected in language. In Russian, there are two words that can be rendered in English as ‘time’, namely *vremja* and *pora*. As argued by Jakovleva (1991, 1992 and 1994) and Gladkova (2012), *vremja* tends to be used in contexts involving a “linear” conceptualization of time, while *pora* presupposes “cyclic” construal. For instance, combined with the noun *cvetenie* ‘blossoming’ *vremja* simply refers to the time when blossoming happens, whereas

<sup>2</sup> The Russian National Corpus is available at [www.ruscorpora.ru](http://www.ruscorpora.ru). Corpus searches were performed in the main corpus (approximately 230 million words) in April 2014. In the frame *dva/dve ... (tomu) nazad* ‘two ... ago’ *dva* combines with masculine and neuter nouns and *dve* with feminine.

the phrase *pora cvetenija* ‘time of blossoming’ implies that the relevant period comes with an inherent qualitative characteristic – it is the time that is characterized by blossoming (Gladkova 2012: 176).<sup>3</sup>

As mentioned in section 1, in the following we will be concerned with two classes of Russian temporal nouns, those that denote day parts (e.g. *utro* ‘morning’) and those that denote seasons (e.g. *vesna* ‘spring’). Before we consider the syntactic behavior of these words, it is important to notice that in addition to the general evidence reviewed above that day parts and seasons are relevant for “cyclic”/qualitative time in culture, there is also strong *linguistic* evidence that the lexical meanings of the Russian words in question involve “cyclic”/qualitative time. As mentioned above, Zaliznjak and Šmelev (2005) have convincingly shown that the Russian words for day parts denote time spans connected to certain activities (sleep, wake up, work etc.), and therefore are “cyclic”/qualitative in nature. The discussion of the (*tomu*) *nazad* ‘ago’ construction above makes the same point for seasons; these nouns are generally not used for time measurement, but rather qualitatively “characterize the kind of time when something happened” (Wierzbicka 1980: 103).

The purpose of this section is to show that the relevance of the “cyclic”/“linear” distinction is not limited to lexical semantics, but extends to the case syntax of temporal adverbials.<sup>4</sup> I will focus on adverbials of the type Haspelmath (1997: 29) calls markers of “simultaneous location” and Klein (1994: 149 and 2009: 65) refers to as “temporal adverbials of position”. Simply put, the adverbials we are interested in are answers to the question when something happens. In Russian, answers to questions of this type typically involve the prepositions *v* ‘in(to)’ or *na* ‘on(to)’ followed by the accusative or locative (prepositional) case. The latter preposition is used with *nedelja* ‘week’ in the locative:<sup>5</sup>

- (2) Poezd-k-a   sostoja-l-a-s'                    **na proš-oj    nedel-e.**  
 trip-NOM.SG take.place-PST-F.SG-REFL **on last-LOC.SG.F week-LOC.SG**  
 ‘The trip took place **last week.**’ [«Rossijskaja gazeta», 2003]

For time spans shorter than a week, such as seconds, minutes and days, *v* + the accusative is used:<sup>6</sup>

<sup>3</sup> The idea that the concept of “time” itself involves different meanings is not limited to Russian. A case in point is English, where “time” involves eight clearly distinguished senses as demonstrated in Evans’ (2005) careful analysis.

<sup>4</sup> Another analysis of temporal concepts in Russian that emphasizes the relevance of grammar in addition to the lexicon is Guiraud-Weber (2011), who relates lexical differences between Russian and French to grammatical differences with regard to tense and aspect in the two languages. However, Guiraud-Weber’s analysis focuses on different temporal concepts than the present study, and more detailed comparison with her approach is therefore beyond the scope of my article.

<sup>5</sup> The numbered examples in this section were culled from the Russian National Corpus (main corpus) in April 2014. Throughout the article, examples are given in transliterated orthography. For the convenience of the reader I boldface the temporal adverbials that are relevant for the discussion.

<sup>6</sup> For discussion of apparent counterexamples such as constructions of the type *v pjatom času* ‘between four and five o’clock’ (literally ‘in the fifth hour’), see Nessel 2004: 296.

- (3) Godov-oe            sobrani-e            akcioner-ov            AO  
 annual-NOM.SG.N meeting-NOM.SG shareholder-GEN.PL Ltd.  
 «Lenzolo-to»            sostoja-l-o-s'            v proš-uju            pjatnic-u.  
 “Lenzoloto”-NOM.SG take.place-PST-N.SG-REFL in last-ACC.SG.F Friday-ACC.SG  
 ‘The annual meeting of the shareholders of “Lenzoloto” Ltd. took place **last Friday.**’ [«Vostočno-Sibirskaja pravda», 2003]

If we are dealing with a bounded time span longer than a week, e.g. a month, year or century, *v* normally combines with the locative:

- (4) Posledn-jaja tak-aja            vstreč-a            sostoja-l-a-s'  
 last-NOM.SG.F such-NOM.SG.F meeting-NOM.SG take.place-PST-F.SG-REFL  
 v proš-om            god-u            v Budapešt-e.  
 in last-LOC.SG.M year-LOC.SG in Budapest-LOC.SG  
 ‘The previous meeting of this type took place **last year** in Budapest.’  
 [«Texnika – molodeži», 1989]

More detailed descriptions of Russian temporal adverbials in *v* and *na* are given in Nessel 2004 and Makarova and Nessel 2013. However, the examples with “linear” time spans cited above suffice to illustrate the contrast with the “cyclic” notions of seasons and parts of the day, for which the “bare instrumental” construction (i.e. an NP in the instrumental case not governed by a preposition) is characteristic:<sup>7</sup>

- (5) Proš-ym večer-om            ja            govori-l            s            tremja  
 last-INS.SG.M evening-INS.SG I[NOM.SG] speak-PST.SG.M with three[INS]  
 blizk-imi            podrug-ami            Elen-y            Samoxin-oj.  
 close-INS.PL friend-INS.PL Elena-GEN.SG Samoxin-GEN.SG.F  
 ‘**Last night** I talked to three of Elena Samoxina’s close friends.’ [Milovanov. Rynok tšcheslavija (2000)]
- (6) Moj znakom-yj            otdyxa-l            v            Abxazi-i  
 my[NOM.SG.M] acquaintance-NOM.SG.M rest-PST.SG.M in Abkazia-LOC.SG.M  
 proš-ym            let-om.  
 last-INS.SG.N summer-INS.SG  
 ‘My acquaintance was on holiday in Abkhazia **last summer.**’ [kollektivnyj (2011)]

<sup>7</sup> Arguably, instrumental NPs such as *večerom* and *letom* are in the process of becoming adverbs. However, the fact that they combine with agreeing modifiers in the instrumental case such as *prošlym* ‘last’ in (5) and (6) shows that the process of adverbialization has not reached its conclusion yet (cf. Peškovskij 1914: 182, Janda 1993: 168f., Haspelmath 1997: 112, Menzel 2008, and Mikhaylov 2012: 231 for discussion). In his detailed comparison of corpus data from Russian, Polish and Croatian/Serbian, Menzel (2008: 274) concludes that the use of the bare instrumental is subject to more restrictions in Polish and Croatian/Serbian than in Russian. It therefore appears that the bare instrumental is less adverbialized in Russian (see also Wierzbicka 1980: 105f.). For a discussion of the differences between adjectives like *rannij* ‘early’ and adverbs like *rano* ‘early’ in combination with parts of the day, see Zaliznjak and Šmelev (2005: 41).

The bare instrumental construction is not normally used for “linear” time.<sup>8</sup> However, for “cyclic” time the bare instrumental competes with *v* + the accusative, which is attested both for parts of the day such as *večer* ‘evening’ and seasons such as *leto* ‘summer’:

- (7) Okaza-l-o-s',                      čto    v    prošl-yj    večer  
 turn.out-PST-N.SG-REFL    that    in    last-ACC.SG    evening[ACC.SG]  
 P'er                      celova-l-sja                      s    Nataš-ej                      Rostov-oj.  
 Pierre[NOM.SG]    kiss-PST.M.SG-REFL    with    Nataša-INS.SG                      Rostov-INS.SG.F  
 ‘It turned out that **last night** Pierre kissed Nataša Rostova. [Kollekcija  
 anekdotov: poručik Rževskij (1962-2000)]
- (8) V    prošl-oe                      let-o                      on-a                      s    odnokursnik-ami  
 in    last-NOM.SG.N    summer-NOM.SG    she-NOM.SG.F    with    classmate-INS.PL  
 prove-l-a                      cel-yj                      mesjac                      v    Ispanii.  
 spend-PST-SG.F    whole-ACC.SG.M    month-ACC.SG    in    Spain-LOC.SG  
 ‘**Last summer** she and her classmates spent a whole month in Spain.’  
 [Dvoreckij, Šakaly (2000)]

For “cyclic” time spans, the competition between the bare instrumental and *v* + the accusative partially depends on whether the noun is preceded by a modifier or not. As shown in Table 2 and Figure 1, which report on data from the Russian National Corpus, *v* + the accusative dominates for day parts with modifiers, whereas the bare instrumental is dominant elsewhere.<sup>9</sup> In other words, the bare instrumental represents the default construction for “cyclic” time spans. This result is in harmony with the data reported in Menzel 2008: 270. Menzel, who studied a

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<sup>8</sup> Although the bare instrumental construction is not entirely excluded for “linear” time, examples are few and far between. For instance, the Russian National Corpus returned only six examples of the bare instrumental *prošlym godom* ‘last year’, while the corpus contains 6376 attestations of the corresponding construction with *v* + locative, *v prošlom godu* ‘last year’ (corpus searches performed in June 2014). Notably, only one of the six examples with *prošlym godom* was from after 1950. In a study based on data from a corpus compiled from the Internet, Menzel (2008: 267) reports that he found eight examples with *mesjac* ‘month’ in the bare instrumental. This testifies to the marginal status of the bare instrumental construction for linear time, especially since five out of the eight examples were from one author (Boris Pil’njak).

It is worth pointing out that examples of the following type do not involve the bare instrumental construction we are concerned with in the present article:

- (i) Po    sad-u                      možno                      gulja-t'                      čas-ami.  
 round    garden-DAT.SG    possible                      walk-INF                      hour-INS.PL  
 ‘In the garden it is possible to walk **for hours**.’ [«Bogatej», 2003]

Admittedly, *čas* ‘hour’ occurs in the instrumental and is not governed by a preposition, but we are nevertheless dealing with another construction, which is different both in form and meaning. While day parts and seasons are used in the instrumental singular, “linear” concepts such as *čas* occur in the instrumental plural. As suggested by the gloss ‘for hours’, the instrumental plural construction implies that the activity is carried out for a longer time than one would expect. This nuance is not part of the meaning of the “cyclic” bare instrumental construction under scrutiny in the present study. For discussion of the instrumental plural construction, the interested reader is referred to Wierzbicka 1980: 107f.

<sup>9</sup> The data are from the manually disambiguated part of the Russian National Corpus (approximately 6 million words). Corpus searches were carried out in June 2012.

corpus of Russian, Polish and Croatian/Serbian texts he had compiled from the Internet, found agreeing modifiers in only 10-15% of the attested examples with the bare instrumental. His data indicate that the situation is similar in the three languages under scrutiny in his article.<sup>10</sup>

	Bare instrumental	V + accusative
Day part without modifier	2066	15
Day part with modifier	207	766
Season without modifier	800	2
Season with modifier	166	46
Total	3239	829

Table 2: Competition of bare instrumental and v + accusative for “cyclic” time

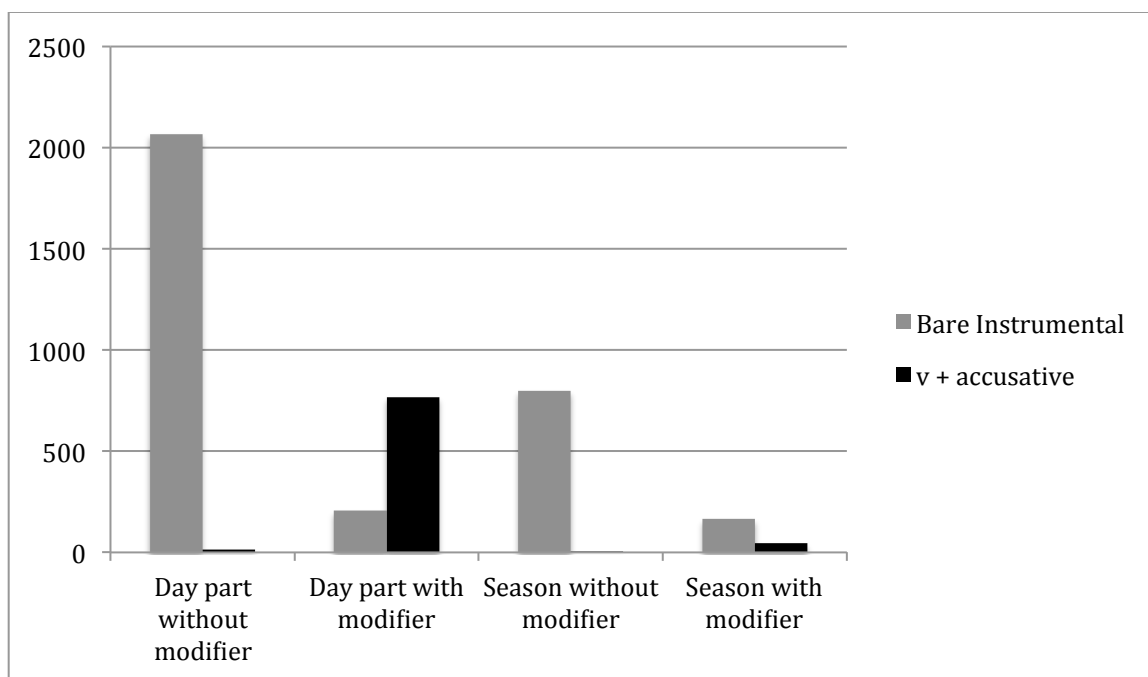


Figure 1: Competition of bare instrumental and v + accusative for “cyclic” time

The following simple system of generalizations summarizes the situation in Contemporary Standard Russian:

- (9) a. “Linear” time spans shorter than a week: v + accusative  
 b. Week: na + locative  
 c. “Linear” time spans longer than a week: v + locative

<sup>10</sup> An anonymous reviewer observes that day parts and seasons have default deictic interpretations. For instance, if I use the bare instrumental *večerom* ‘in the evening’, the most likely interpretation is that I am referring deictically to the evening of *today*. Possibly, this can account for the relative scarcity of modifiers with day parts and seasons. However, as shown by Menzel (2008: 273), bare instrumentals combine with a range of different modifiers, many of which have other functions than identifying the relevant day or year. In Menzel’s data, adjectival and pronominal deictic modifiers with an identifying function comprise only 39.7% of the attested examples with modifiers, so it seems clear that the fact that day parts and seasons have default deictic interpretations is not the whole story.



d. “Cyclic” time spans (day parts/seasons): bare instrumental/*v* + accusative

Two conclusions can be drawn on the basis of (9). First, time measurement is relevant since the choice of case after *v* ‘in(to)’ depends on whether the relevant time span is shorter or longer than a week (see Nessel 2013 for discussion). Second, and more importantly for present purposes, we observe a difference between the “linear” concepts in (9a-c) and the “cyclic” concepts in (9d). Since “linear” time spans use different syntactic constructions with different cases than “cyclic” notions, the syntax of Contemporary Standard Russian is clearly sensitive to the distinction between “linear” and “cyclic” time. The fact that day parts and seasons behave like a natural class is not unique to Russian, since day parts and seasons are neighboring categories on the semantic map for temporal expressions proposed by Haspelmath (1997: 106), where he relates the markers for hour, day, month, year, day part and season. The fact that day parts and seasons occupy adjacent slots on the map suggests that they are conceptually closely related and frequently marked the same across languages and language families. For example, as pointed out by Haspelmath (1997: 113), Finnish uses the adessive case for day parts (*illa-lla* ‘in the evening’) and seasons (*kesä-llä* ‘in the summer’), and Italian reserves the preposition *di* for day parts (*di sera* ‘in the evening’) and seasons (*d’estate* ‘in the summer’). Another Indo-European language that patterns with Italian is Norwegian, where we find the preposition *om* in adverbials involving day parts (*om kvelden* ‘in the evening’) and seasons (*om sommeren* ‘in the summer’, see Faarlund et al. 1996: 431). However, more fine-grained comparative analysis also reveals interesting differences, even among closely related languages, such as the Slavic languages. Menzel’s (2008) careful analysis of temporal constructions with the bare instrumental in Russian, Polish and Croatian/Serbian shows that the relevant constructions are subject to different restrictions in these languages. Makarova and Nessel (2013) present a similar picture; their data from the ParaSol corpus testify to numerous differences in the distribution of the bare instrumental in the East and West Slavic languages and show that the relationship between the bare instrumental and other temporal constructions is not identical in these languages.<sup>11</sup> Importantly, only in Russian the bare instrumental has developed into a specialized construction for “cyclic” time. Thus, the Russian data explored in this section are particularly interesting because they enable us to address the question as to whether the sensitivity to “cyclic” time is due to cultural factors. The following section will make the Culture Hypothesis explicit, before it is tested against data from the history of Russian in sections 4 through 6.

### 3. The Culture Hypothesis

The idea that linguistic patterns reflect cultural values and practices has deep roots in linguistics. It is sufficient to mention von Humboldt (1907/1968: 52–65) and Weisgerber (1929: 75), as well as the Sapir/Whorf hypothesis (Whorf 1956: 212f.),

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<sup>11</sup> The ParaSol corpus is available at <http://parasol.unibe.ch>.

which takes the idea of linguistic relativity to its extreme.<sup>12</sup> In recent years, these ideas have received new attention in general and Slavic linguistics through Wierzbicka's (1992, 1997 and 2005) profound semantic analyses of cultural scripts, and also through numerous analyses couched in the framework referred to as the "linguistic picture of the world" (Russian: *jazykovaja kartina mira*, Zaliznjak, Levontina and Šmelev 2005). Linguists pursuing this approach have analyzed temporal concepts, including the "cyclic" notions under scrutiny in the present article (Jakovleva 1991, 1992 and 1994, Zaliznjak and Šmelev 2005), so it seems reasonable to turn to culture in our quest for factors motivating the sensitivity to "cyclic" time in grammar:

- (10) **The Culture Hypothesis:** Sensitivity to "cyclic" time in language is due to the significance of "cyclic" time in culture.

While I do not question the value of the "linguistic picture of the world" and similar approaches, I propose exploring the limitations of a purely cultural approach through a diachronic study. If we adopt a general definition of "culture" as the system of human knowledge, belief and behavior, it is clear that the Culture Hypothesis implies that the sensitivity to "cyclic" time in language is likely to change over time, since knowledge, belief and behavior are subject to change. A brief look at Russian history suffices to illustrate this.

If we compare the culture of Kievan Rus', the East Slavic state that flourished in the eleventh and twelfth centuries around Kiev in today's Ukraine, with the culture of contemporary Russia (or any other (post-)modern European state), it becomes clear that "cyclic" time was more prominent in Kievan Rus' than it is today. In medieval times people were much more dependent on the natural cycles of the day parts and the seasons. Medieval men and women had little artificial light at their disposal, and therefore had to organize their lives according to the natural cycles of day and night. Abundant artificial light gives modern men and women no such limitations; in the twenty-first century it is possible to organize one's life without thinking about natural light. Accordingly, the big cities of our time "never go to sleep", as the cliché has it, but are full of life at any time of the day or night.

In a similar vein, the seasons would have been more prominent in the lives of the citizens of Kievan Rus' than they are today. While the vast majority of the citizens of Kievan Rus' were involved in agriculture where work was organized according to the annual cycle of the seasons, agriculture now occupies a relatively small proportion of the population. Moreover, modern men and women have access to all kinds of foods year round, while in medieval times what one ate was much more dependent on the seasons. The idea of going to a supermarket to buy fresh strawberries in the middle of the winter must have sounded like science fiction to a citizen of Kievan Rus'.

While the natural cycles of the day and the seasons were more prominent in medieval culture than they are today, the importance of time measurement has arguably increased. Needless to say, medieval men and women also measured their

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<sup>12</sup> For a recent and up to date discussion of the relationship between Weisgerber's Neohumboldtianism and Whorfianism, see Seuren (2013: 33–40).

activities in time, but modern men and women, who frequently complain about time pressure and divide their timelines into ever shorter and more precise units. In order to catch a bus or come to work on time we rely on precise clocks, and some of us even engage in activities such as sports where tenths and hundredths of a second can be significant.

It is worth pointing out that the very concept of a “timeline”, at least as an explicit model, is a relatively recent innovation. In the scholarly field of history, for instance, the use of timelines “with one axis and a regular, measured distribution of dates” as a way of visualizing historical development over time is “not even 250 years old”, according to Rosenberg and Grafton (2010:14). Since, as pointed out by Coulson and Pagán Cánovas (2013: 204), “[c]ultural constructs such as the timeline look obvious in retrospect”, it is worth pointing out that even the mathematical concept of the number line, which is closely related to the timeline, is not very old, but rather an innovation from seventeenth century Europe (Núñez 2009: 71f., see also Lakoff and Núñez 2000: 278ff.).

While modern historians seek to establish causal links between events occupying different places on the timeline, intellectuals of Kievan Rus’ had a different approach to history where a cyclic conceptualization of time played an important role. For historians of our time, an explanatory account of an event such as World War I involves careful analysis of the events that caused it. The intellectuals of Kievan Rus’, on the other hand, explained important events in their time as cyclic repetitions of events from the Bible. In other words, as pointed out by Børtnes (1989: 7), the most explanatory account of an event was to interpret it as a reenactment of the archetypical patterns found in the Bible. Børtnes adds that this kind of figural interpretation was not just a rhetorical technique, but rather “a way of thinking characteristic of early Kievan literature as a whole” (Børtnes 1989: 7).

By way of example, consider the case of Princes Boris and Gleb who were killed by one of their older brothers in a power struggle in 1015 AD.<sup>13</sup> Instead of analyzing the causes that led to the murder, medieval writers drew parallels with the Bible (e.g. the story of Cain and Abel) and interpreted Boris and Gleb’s death as a reenactment of Christ’s suffering on the cross. This so-called *imitatio Christi* motif runs like a red thread through Old Russian literature all the way to the *Žitie (Life)* of Archpriest Avvakum (1621-82), who was only able to make sense of his intense suffering as a reenactment of the suffering of Christ (Børtnes 1989: 39, see also Børtnes 1988: 265ff.).

In-depth analysis of medieval literature and philosophy is beyond the scope of the present study, but the examples given above suffice to show that the conceptualization of time has changed, and that “cyclic” time was more prominent in the mindset of medieval men and women than it is today. How do the changes in the conceptualization of time relate to the Culture Hypothesis stated in (10) above? If

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<sup>13</sup> The story of Boris and Gleb is known from three different sources: Nestor’s *Čtenie o žitii i o pogublenii blažennuju strastoterpca Borisa i Gleba (Reading on the Life and Slaying of the Blessed Martyrs Boris and Gleb)*, *Povest’ vremennyx let (The Primary Chronicle)*, also possibly attributed to Nestor), and the anonymous *Skazanie i strast’ i poxvala svjatuju mučeniku Borisa i Gleba (Narrative and Passion and Eulogy of the Blessed Martyrs Boris and Gleb)*. Despite certain differences, all three sources give essentially the same interpretation of the historical events.

language is the mirror of shifting cultural values and practises, we expect language to change so as to reflect the decreasing cultural significance of “cyclic” time, as “linear” time becomes pervasive in modern culture:

- (11) **Prediction from the Culture Hypothesis:** Sensitivity to natural cycles in language decreases as “linear” time becomes more important in culture.

In the following three sections, we will see that the Culture Hypothesis has certain limitations, and an alternative approach focusing on language internal factors is therefore advanced in section 7.

#### 4. The Bare Instrumental: Existence

In section 2, we saw that in Contemporary Standard Russian the bare instrumental construction is associated with “cyclic” time, insofar as it represents the default way to mark temporal adverbials involving day parts and seasons. In order to test the hypothesis discussed in section 3 we will consider the history of the bare instrumental in temporal adverbials, focusing on three interrelated questions:

- (12) **Existence:** Did the temporal bare instrumental construction exist in earlier times?  
 (13) **Distribution:** Was the temporal bare instrumental construction associated with “cyclic” time?  
 (14) **Competition:** What was the strength of the temporal bare instrumental construction compared to competing constructions?

We will turn to questions (13) and (14) in sections 5 and 6, but first it is necessary to discuss the existence of the bare instrumental in Common Slavic and Old Russian.<sup>14</sup>

In order to facilitate robust and reliable comparisons between Old Russian and Contemporary Standard Russian, the discussion in sections 5 through 7 will revolve around the same two sets of temporal nouns (day parts and seasons) that were the centerpiece of the analysis of modern Russian in section 2. Importantly, the core lexical meanings of these nouns have not changed much, as a comparison of major dictionaries (*Slovar’ russkogo jazyka XI–XVII vv.* (1975–) and *Slovar’ russkogo jazyka* (1999)) shows. By way of example, consider *vesna* in Old Russian and

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<sup>14</sup> For the purposes of the present study, the term “Old Russian” is used for the period up to 1700, since the distinction between Old Russian and Middle Russian is not of importance for the present study. Notice that “Old Russian” is a misnomer insofar as we are dealing with the ancestor of all the modern East Slavic languages (Belarusian, Russian and Ukrainian), not just Russian. The reason why I stick to the traditional “Old Russian” is that my analysis concerns the period all the way to 1700, the latter part of which is after the linguistic unity of East Slavic was broken. It would be somewhat misleading to refer to attested examples from, say, the 17<sup>th</sup> century as “Old East Slavic”. Yet another terminological alternative is “Old Rusian” (with one s), which alludes to Kievan Rus’, the first state in the East Slavic area. See Nessel (2015: 10f.) for discussion of the terminological issue. Notice that examples are given in transliterated orthography. However, as is customary in historical linguistics, the so-called jer (yer) vowels are represented as ъ and ѣ rather than ’ and ” in examples from Old Church Slavonic and Old Russian.

Contemporary Standard Russian. Both in Old Russian and Contemporary Standard Russian the core meaning is ‘spring’. In addition, in Old Russian we find the metonymic extension ‘spring money’ (a historic term used in connection with the hunting of marine animals, Filin (ed.) 1965–), whereas *Slovar’ russkogo jazyka* (1999) mentions the metaphorical extension ‘youth’ (the “spring” of someone’s lifetime) for modern Russian. In other words, while metonymic and metaphorical uses vary, the core meaning has remained stable over the relevant period of time. However, there is one important exception. The Old Russian polysemous noun *lěto* denoted both ‘summer’ and ‘year’, and its polysemy thus related it both to “cyclic”/qualitative and “linear”/quantitative time. The corresponding noun in Contemporary Standard Russian, *leto*, only denotes the season. Since this difference makes comparison difficult, *lěto* will not be included in the counts in section 6 below.<sup>15</sup>

If we go back to Old Church Slavonic, the oldest Slavic texts from before 1100 AD, which are indicative of the situation in Common Slavic, we find attestations of the bare instrumental in temporal adverbials:<sup>16</sup>

- (15) **Četyr-ъmi desęt-y i šest-ijø** lět-ъ sъzъda-n-a  
**four-INS ten-INS and six-INS** year-GEN.PL create-PTCP.PASS-F.SG  
 by crky si i ty li  
 be[AOR.3.SG] church[NOM.SG] this-NOM.SG.F and you[NOM.SG] INTERROG  
**tr-ъmi den-ъmi** vъzdvign-eši jø.  
**three-INS day-INS.PL** raise-PRS.2.SG it[ACC.SG.F]  
 ‘It has taken **forty-six years** to build this temple, and you are going to raise it **in three days**?’ (John 2.20)

Sentence (15) may be analyzed as an accomplishment in the sense of Vendler (1957), and the adverbial in the bare instrumental may be said to have a “telic” meaning, whereby a result is accumulated in the amount of time denoted by the NP in the instrumental case. As pointed out by Malaxovskaja (1958:236 and 242) and Mikhaylov (2012: 231f.), apart from a few adverbialized instrumentals and set phrases like *migom* ‘in a flash’ and *odnim dnem* ‘in one day’, “telic” readings are not characteristic of the bare instrumental construction in Contemporary Standard Russian. However, the “telic” construction is attested in Russian texts as late as in the 1700s, when it according to Mikhaylov (2012: 231) became an archaism. The

<sup>15</sup> It is interesting to note the semantic shift in the noun that has taken over for *lěto* in the meaning ‘year’: *god*. As argued by Anstatt (1996: 43-46 and 63-64), this word started out denoting ‘suitable’ (German: *passend*) and ‘suitable time’ (German: *passende Zeit*). The fact that the original meaning carries a “cyclic”/qualitative nuance suggests that semantic shifts from “cyclic”/qualitative to “linear”/quantitative time are possible. Recall from section 1 that I argue that “cyclic”/qualitative and “linear”/quantitative time are closely related concepts, and that it is our ability to construe time in cycles that makes it possible to use them as units of measurement on a timeline. Anstatt’s (1996) diachronic analysis fits well in this picture. However, since *god* is not among the words I focus on in my analysis, further discussion of this noun is beyond the scope of the present study.

<sup>16</sup> Examples (15) and (17) are from *Codex Marianus* cited after the PROIEL corpus available at [http://foni.uio.no:3000/users/sign\\_in](http://foni.uio.no:3000/users/sign_in). However, J. Kamphuis’ parallel corpus (<http://www.jaapkamphuis.nl/index.php/parallel-corpus1>) shows that the same construction is attested in both *Codex Zographensis* and *Codex Assemanianus*.

following example from *Domostroj*, a source from the 1500s, illustrates the “telic” use of the bare instrumental for дѣнь ‘day’:<sup>17</sup>

- (16) I skolko č-evo zděla-etъ kto **dn-emъ**, mnogo  
 and how.much what-GEN.SG do-PRS.3.SG who[NOM.SG] **day-INS.SG** much  
 li malo, i skolъko is č-evo vyjd-etъ.  
 or little and how.much of what-GEN.SG come.out-PRS.3.SG  
 ‘And how much someone can do **in a day**, much or little, and how much  
 comes out of it.’

The perfective verb *zdělaetъ* ‘(he) will do’ and the phrase *skolъko is čevo vyjdetъ* ‘how much comes out of it’ strongly suggests that the bare instrumental indicates how much can be accomplished *in a day*.

In Contemporary Standard Russian, the bare instrumental construction normally yields “atelic” readings. In (5) and (6) cited in section 2, for example, the bare instrumental occurs in temporal adverbials of position, where an event is located within a time span with no implication that a result was achieved during the time span in question. Such “atelic” readings appear to be rare in Old Church Slavonic, though they are attested:

- (17) Ašte li kto hod-itъ **nošt-ijq** potъkn-etъ  
 if INTERROG who[NOM.SG] walk-PRS.3.SG **night-INS.SG** stumble-PRS.3.SG  
 se ťko něstъ svět-a o nemъ.  
 refl[ACC.SG] that not.be[PRS.3.SG] light-GEN.SG about he[LOC.SG]  
 ‘If someone walks **by night**, he will stumble, for he has no light.’ (John 11.10)

As suggested by the English gloss ‘by night’, we are dealing with an “atelic” reading, and *noštijq* can be rendered as the corresponding bare instrumental *noč’ju* in Contemporary Standard Russian.

To sum up, despite the semantic differences discussed above, the evidence adduced in this section indicates that the bare instrumental has been used in temporal adverbials since Common Slavic.

## 5. The Bare Instrumental: Distribution

Recall from section 2 that in Contemporary Standard Russian the bare instrumental construction is associated with “cyclic” time insofar as it is attested for day parts and seasons, but generally not used for “linear” time spans such as hours, weeks and months. In the following, we will see that this state of affairs is of relatively recent origin. Although, as shown in the previous section, the bare instrumental has been used about time since Common Slavic, it had a different distribution and was not so tightly associated with “cyclic” time.

If we limit ourselves to discussion of the “atelic” use of the instrumental case, which is relevant for our comparison with Contemporary Standard Russian, we find

<sup>17</sup> The example from *Domostroj* is cited after the electronic version available at <http://lib.pushkinskijdom.ru/Default.aspx?tabid=5145>.

that the bare instrumental construction was almost exclusively used with *noštъ* ‘night’ in Old Church Slavonic, as in example (17) in section 4 (Malaxovskaja 1958: 230). In Old Russian, albeit not in the oldest sources, in addition to *nočъ* ‘night’ we have attestations of other “cyclic” time spans such as *dnъ* ‘day’, *lěto* ‘summer’ (also: ‘year’) and *osenъ* ‘fall’ (Malaxovskaja 1958: 230). Here are examples with *dnemъ* ‘during the day’ and *lětomъ* ‘in the summer’:

- (18) Izęslav            že            uskori            **dn-emъ**    peredъ bratъ-eju.  
Izjaslav[NOM.SG] EMPHAT came[AOR.3.SG] **day-INS.SG** before brother-INS.SG  
‘But Izjaslav came **during the day** before his brother.’ (*Suzdal Chronicle*  
298,8)<sup>18</sup>
- (19) A    svekoln-oj            rosol-ъ            stav-it,            a    ogurc-y  
and beetroot-ACC.SG.M pickle-ACC.SG place-PRS.3.SG and cucumber-ACC.PL  
sol-it,            a    **lět-omъ**            prolaža-et-ca.  
salt-PRS.3.SG and **summer-INS.SG** get.refreshed-PRS.3.SG-REFL  
‘And one makes pickled beetroot and cucumbers, and one gets refreshed **in**  
**the summer.**’ (*Domostroj*)<sup>19</sup>

However, the bare instrumental construction was not restricted to the “cyclic” time spans of day parts and seasons, as shown in examples (20) and (21) involving the instrumental adverbials *prošedšim godom* ‘last year’ and *inymъ vremjanemъ* ‘at other times’:

- (20) Smuti-l-sja                            dux                            ego nesčastliv-ym  
be.concerned-PST.M.SG-REFL soul[NOM.SG] his unsuccessful-INS.SG  
poxod-om,            Gde on            načalъstvova-l            v vojn-e  
campaign-INS.SG where he[NOM.SG] be.in.charge-PST.M.SG in war-LOC.SG  
**prošedš-im god-om.**  
**last-INS.SG year-INS.SG**  
‘His soul was concerned about the unsuccessful campaign, where he was in  
charge in the war **last year.**’ (M. M. Xeraskov: *Rossijada 1779*, cited after  
Mikhaylov 2012: 233).
- (21) A **in-ymъ**            **vremjan-emъ** carъ            vel-itъ            imъ  
but **another-INS.SG time-INS.SG** czar[NOM.SG] order-PRS.3.SG they[DAT.PL]  
sidě-tъ.  
sit-INF  
‘But **at another time** the czar orders them to sit.’ (Gr. Kotošixin: *O Rossii v*  
*carstvovanie Alekseja Mixajloviča*, cited after Malaxovskaja 1958:230)

Notice, in particular, that *vremja* ‘time’ pertains to “linear” time in Russian, as argued in section 2 (Jakovleva 1991, 1992 and 1994, and Gladkova 2012).

Although Mikhaylov (2012) found some examples from the 1700s, e.g. (19) above, the bare instrumental construction appears to have become restricted to day parts and seasons in the 1600s and 1700s, when prepositional constructions

<sup>18</sup> The example from the *Suzdal Chronicle* is cited after *Lavrent’evskaja letopis’* (1997).

<sup>19</sup> The example from *Domostroj* is cited after <http://lib.pushkinskijdom.ru/Default.aspx?tabid=5145>.

became dominant for temporal adverbials involving “linear” time spans. It is worth pointing out that Lomonosov’s grammar from 1755 relates the bare instrumental to day parts and seasons (Lomonosov 1755/1972: 209, see Mikhaylov 2012: 232 for discussion).

Another indication that the tight association between “cyclic” time and the bare instrumental construction is a relatively recent innovation is the fact that other Slavic languages display different distributions. As mentioned in section 2, in a recent study of temporal adverbials across West and East Slavic based on data from the parallel ParaSol corpus, Makarova and Nessel (2013) demonstrate that the bare instrumental construction has a much narrower distribution in other Slavic languages and has not developed into a specialized construction for “cyclic” time in those languages.

In summary, both historical and comparative evidence indicate that the bare instrumental construction as a specialized construction for “cyclic” time is a relatively recent development. In other words, Old Russian was less sensitive to “cyclic” time than Contemporary Standard Russian. This goes against the Culture Hypothesis, which, as pointed out in section 3, predicts *decreasing*, not *increasing*, sensitivity to “cyclic” time.

## 6. The Bare Instrumental: Competition

In section 2 we saw that although the default construction for “cyclic” time in Contemporary Standard Russian is the bare instrumental, this construction competes with the *v* + accusative construction, which is particularly frequent for day parts preceded by agreeing modifiers. In Old Russian, the situation was very different. In fact, the bare instrumental competed with five other constructions. Here is an example with the temporal adverbial in the bare accusative, i.e. accusative not governed by a preposition:<sup>20</sup>

- (22) Azъ            **utr-o**                    posl-ju            po            vy.  
 I[NOM.SG] **morning-ACC.SG** send-PRS.1.SG after you[DAT.PL]  
 ‘I will send for you **in the morning**.’ (*Primary Chronicle* 56,11)

We also find examples of temporal adverbials in the bare genitive, typically in combinations with agreeing determiners, as in this example from the *Kiev Chronicle*:<sup>21</sup>

- (23) **T-oe**                    **že**            **osen-i**            rodi-se    syn-ъ            u  
**that-GEN.SG.F** **EMPHAT fall-GEN.SG** be.born[AOR.3.SG]-REFL son-NOM.SG by  
 velik-ago                    Vsevolod-a.

<sup>20</sup> Unless indicated otherwise, the examples from the *Primary Chronicle* in this article are cited after *Lavrent’evskaja letopis’* (1997), which represents the oldest source to the chronicle. The numbers after the examples refer to the page number (before comma) and line number (after comma) in this edition. This reference system is also used in Ostrowski (ed.) (2003).

<sup>21</sup> The example from the *Kiev Chronicle* is cited after *Ipat’evskaja letopis’* (1998). The numbers after the example refer to the page number (before comma) and line number (after comma) in this publication.



great-GEN.SG.M Vsevolod-GEN.SG  
 'The same fall a son was born to the great Vsevolod.' (*Kiev Chronicle* 659,7)

A third competitor of the bare instrumental construction is the bare locative:<sup>22</sup>

(24) A **utr-e** vsta-v-ъ, Bog-u moli-ti-sъ.  
 and **morning-LOC.SG** get.up-PTCP-NOM.SG.M God-DAT.SG pray-INF-REFL  
 'And after getting up **in the morning**, one should pray to God.' (*Domostroj*)

In the same way as in Contemporary Standard Russian, the bare instrumental competed with *vъ* + accusative in Old Russian:<sup>23</sup>

(25) Ašče by-ste cheloveč-ě by-l-ě,  
 if be-AOR.2.PL human-NOM.PL be-PTCP-NOM.PL  
 to **vъ den-ъ** by-ste xodi-l-i.  
 then **in day-ACC.SG** be-AOR.2.PL walk-PTCP-NOM.PL  
 'If you were humans, you would have come **during the day**.' (*Primary Chronicle* 197,10; *Ipat'evskaja letopis'* 1998)

Finally, we have a few Old Russian attestations of *vъ* + locative:<sup>24</sup>

(26) Po s-ěmъ že nača-ša **v dne** javlja-ti-sja  
 after this-LOC.SG.N EMPHAT begin-AOR.3.PL **in day-LOC.SG** appear-INF-REFL  
 na konixъ.  
 on horse-LOC.PL  
 'After this they started to appear on horses **during the day**.' (*Primary Chronicle* 215,2-3)

In order to get a better understanding of the relationship between the bare instrumental and competing constructions, I created a database of all attestations of "cyclic" temporal adverbials in the relevant constructions in four Old Russian chronicles, viz. the *Primary Chronicle*, the *Suzdal Chronicle*, the *Galician-Volhynian Chronicle*, and the *Kiev Chronicle*.<sup>25</sup> The database, which contains a total of 260 examples, includes the following nouns: *utro* 'morning', *večerъ* 'evening', *nočь/noščь* 'night', *vesna* 'spring', *osenь* 'fall', and *zima* 'winter'. The nouns *lěto* and *dьнь* were not included, since in the chronicles they are almost exclusively used to designate "linear" time ('year', rather than 'summer' for *lěto*, and 'date', rather than the time between morning and evening for *dьнь*).

<sup>22</sup> The example from *Domostroj* is cited after <http://lib.pushkinskijdom.ru/Default.aspx?tabid=5145>.

<sup>23</sup> According to Ostrowski (ed.), other versions of the *Primary Chronicle* have *vъ* + locative in this example.

<sup>24</sup> According to Ostrowski (ed.) (2003), *vъ* + locative is attested in the oldest sources, *Lavrent'evskaja letopis'* and *Ipat'evskaja letopis'*.

<sup>25</sup> The data from the *Primary Chronicle* are culled from the TOROT corpus (Tromsø Old Russian and OCS Treebank), which is available at <http://nestor.uit.no/>. For the other three chronicles, data were excerpted from the electronic versions published by the Russian Academy of Science (<http://www.ruslang.ru/agens.php?id=res>).

The data are summarized in Table 3 and Figure 2, which permit three conclusions. First of all, it is clear that the bare instrumental construction enjoyed a relatively marginal status in Old Russian, since it is attested in only 13 out of 260 examples, i.e. 5%. Second, the competing constructions are not unique for “cyclic” time, but are widely used for linear time spans as well. The bare genitive, for instance, is frequently used with nouns such as *měsjacь* ‘month’ (see Nesset 2013: 43-45 for discussion and examples). Third, Table 3 and Figure 2 reveal a somewhat heterogeneous picture, insofar as day parts and seasons have different “constructional profiles” (in the sense of Janda and Solovyev 2009), i.e. relative frequency distributions of the relevant constructions. While for day parts the most frequent construction is the bare accusative, the bare genitive construction dominates for seasons.

		Bare A	Bare G	Bare I	Bare L	v + A	v + L
Day parts	Primary	11	3	4	1	10	6
	Suzdal	7	1	2	4	1	0
	Galician–Vol.	8	11	2	0	1	0
	Kiev	8	4	3	1	7	1
	Total	34	19	11	6	19	7
Seasons	Primary	2	2	1	2	0	0
	Suzdal	1	88	1	2	2	0
	Galician–Vol.	0	6	0	0	1	0
	Kiev	0	44	0	10	2	0
	Total	3	140	2	14	5	0
All nouns	Total	37	159	13	20	24	7

Table 3: Day parts and seasons in four Old Russian chronicles

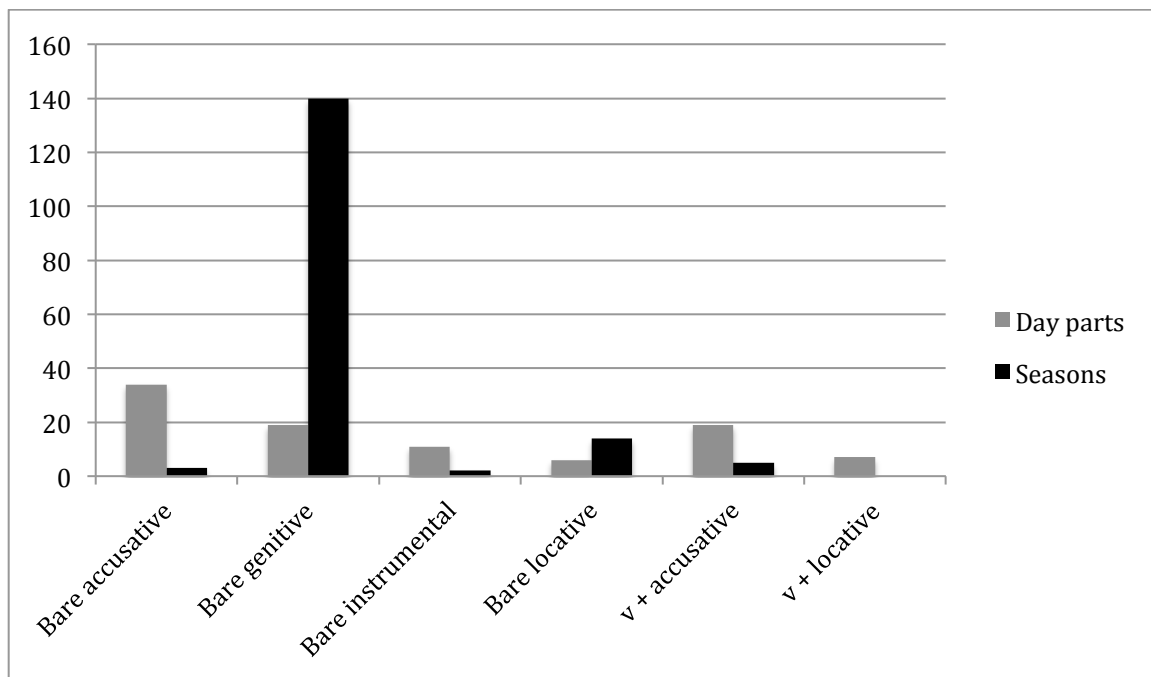


Figure 2: Day parts and seasons in four Old Russian chronicles

To summarize, the findings of this section reinforce the observations made in the previous two sections. Although the bare instrumental construction has been used in temporal adverbials since Common Slavic, it was not a specialized construction for “cyclic” time in Old Russian. The fact that Old Russian did not have such a specialized construction that was tightly associated with “cyclic” time, but not used for time spans outside this realm shows that Old Russian was less sensitive to “cyclic” time than Contemporary Standard Russian is.<sup>26</sup> Once again, this contradicts the Culture Hypothesis, according to which we would expect decreased sensitivity to “cyclic” time.

## 7. Language Internal Factors: Increasing Analyticity

In the previous sections, we have seen that the sensitivity to “cyclic” time increased as the bare instrumental became a means to express “cyclic” time. This development goes against the Culture Hypothesis, since as argued in section 3, “cyclic” time has become less prominent in Russian culture since the Middle Ages.

Before starting our quest for an alternative explanation it is necessary to point out that the linguistic development described in the previous sections are not at variance with the general idea that linguistic patterns reflect “cultural scripts” (Wierzbicka 1997 and 2005) or a “linguistic picture of the world” (Zaliznjak, Levontina and Šmelev 2005). Indeed, these ideas are well documented through a number of thorough case studies including Zaliznjak and Šmelev’s (2005) insightful study of day parts in Russian. Zaliznjak and Šmelev have documented a number of subtle semantic differences between Russian and West European languages. Such lexical semantic differences among words denoting “cyclic” time may reflect cultural differences. However, while Zaliznjak and Šmelev’s findings concern the lexicon, in the same way as Guiraud-Weber’s (2011) thought-provoking analysis of time in Russian and French the present study also focuses on grammar (in particular, the use of the instrumental case). Furthermore, while Zaliznjak and Šmelev analyzed individual lexical items, the present study discusses the category of “cyclic” time in general. In short, Zaliznjak and Šmelev’s findings and the findings reported in the present study to some extent involve different domains.<sup>27</sup>

Since the diachronic changes described in the previous sections do not reflect changes in cultural values and practices, we must look elsewhere for a principled account. I propose that the observed changes are due to language internal factors,

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<sup>26</sup> A proviso deserves mention at this point. Even though the study of the bare instrumental indicates that Old Russian was less sensitive to “cyclic” time than modern Russian, we cannot in principle exclude the possibility that Old Russian had other constructions for “cyclic” time that compensated for the bare instrumental’s low relevance for “cyclic” time. However, I am not aware of any such constructions, and since the onus of proof would be on those advocating this hypothesis, it will not be discussed in the following. I am indebted to an anonymous reviewer for drawing my attention to this point.

<sup>27</sup> Let me point out that I do not subscribe to a view of language whereby lexicon and grammar represent sharply distinct “modules”. However, even if we follow Langacker (2008: 18-24) and regard both lexicon and grammar as parts of one large continuum, it makes sense to distinguish between lexicon and grammar as occupying different areas in this continuum, since lexical items and grammatical constructions have a number of different properties – as Langacker himself points out.

namely the development from synthetic to analytic constructions, which prepared the ground for the expansion of the preposition *v* ‘in(to)’ in temporal adverbials. However, I argue that *v* ‘in(to)’ was not compatible with the concept of “cyclic” time, and this made it possible for the bare instrumental to develop into a specialized construction for the expression of “cyclic” time. In short, the sensitivity to “cyclic” time in Russian grammar turns out to be a by-product of independently motivated language internal changes in Russian. The bare instrumental construction is what is left on the roadside when the shift to analyticity had done its job:

- (27) **The Language internal Hypothesis:** The sensitivity to “cyclic” time is due to language internal factors.

While it is well established that the formation of concepts and the linguistic categories that encode them depends on direct sensory-motor experience (what you experience yourself) and indirect sensory-motor experience (what you witness other people experience), recent research in synchronic linguistics also emphasizes the crucial importance of language internal factors, i.e. our experience with language (Divjak 2015: 45). Already in a seminal study on language acquisition, Landau and Gleitman (1985) observed how blind children acquired language, including verbs of visual perception, and argued that these children could make use of the syntactic contexts that perception verbs occur in to infer their meaning (see also Dąbrowska 2004: 36-38 for discussion). In a recent corpus study, Divjak (2015) adds to this evidence, demonstrating that the syntactic contexts of Russian perception verbs make it possible for blind speakers to distinguish among the verbs in question. Although detailed discussion of concept formation and the linguistic category of perception verbs is beyond the scope of the present study, my analysis of increasing analyticity in Russian lends further support to the crucial role of language internal factors for the concept of “cyclic” time. Moreover, the analysis shows that not only synchronic data, but also evidence from historical linguistics can be brought to bear on the issue.

It is well known that Russian has moved in the direction of more analytic constructions with prepositions instead of constructions involving “bare” cases (cf. e.g. Panov (ed.) 1968: 11, Grannes 1986: 58ff., Il’ina 1996 and references therein). The history of the bare locative and bare genitive constructions in temporal adverbials illustrates this. As pointed out by Toporov (1961: 10 and 22; see also Pavlova 1977: 197ff.), the bare locative was still a “living phenomenon” (“*živoje javlenie*”) in Old Russian, but finally died out in temporal adverbials in the 16th and 17th centuries. The bare genitive underwent a similar development. As shown in section 6, this construction was widely used in Old Russian, but as demonstrated by Grannes (1986: 60) it made a “swift decline” in temporal adverbials in the 18th century. In Contemporary Standard Russian the bare genitive is only used for dates (e.g. *sed’mogo nojabrja* ‘the seventh of November’) and in a small number of set expressions such as *tret’ego dnja* ‘the day before yesterday’.<sup>28</sup>

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<sup>28</sup> We also find reminiscences of the bare genitive construction in the adverbs *včera* ‘yesterday’ and *segodnja* ‘today’, which are fossilized genitive phrases.

The bare locative and genitive constructions for temporal adverbials were replaced by constructions with the preposition *v* 'in(to)' with the temporal noun in the accusative or locative case. This preposition describes a three-dimensional space which an object moves into or is located inside. For convenience, I will refer to such a space as a "metaphorical container".<sup>29</sup> Arguably, the replacement of the bare locative and genitive by *v* implies that the conceptualization of time in terms of a metaphorical container became pervasive in Russian.

Beyond the general development towards increased analyticity, it is difficult to pinpoint the reasons why conceptualization of time in terms of metaphorical containers became more prominent. However, as pointed out in Nessel 2013: 50 the changes in temporal adverbials may be related to similar changes in the aspectual system. In Russian, perfective verbs are typically telic, but there is also a class of atelic perfectives, for instance verbs of the so-called delimitative aktionsart such as *popisat'* 'write for a while'. Verbs of this type are atelic insofar as they describe an activity that goes on for a while without reaching an inherent endpoint (a "telos"). Arguably, the prefix *po-* in delimitative verbs like *popisat'* places temporal boundaries around the event, which essentially amounts to locating it in a metaphorical container. In other words, the atelic perfectives resemble temporal adverbials with *v* 'in(to)', insofar as in both cases we are dealing with conceptualization of time in terms of metaphorical containers. While there is no evidence indicating that the changes in the aspectual system *caused* the increased use of *v* in temporal adverbials, the two changes may have been related since they are not only conceptually similar, but also took place at approximately the same time, i.e. in the 16<sup>th</sup>–18<sup>th</sup> centuries (cf. Nessel 2013: 49ff. and Dickey 2008 for discussion).

As shown in the previous section, the constructions with *v* competed with four constructions with bare cases. While – as we have just seen – the bare locative and genitive hit on hard times, the bare accusative and the bare instrumental survived in Contemporary Standard Russian, despite the general tendency towards increased analyticity. The question is why. I propose that the answer is that the bare accusative and instrumental constructions survived in meanings that did not lend themselves to conceptualization in terms of metaphorical containers.

Let us take the bare accusative first. While in Old Russian this construction was able to designate a time span when something happened as in example (22) in section 6, the bare accusative is now limited to adverbials expressing the duration of

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<sup>29</sup> In-depth discussion of the metaphorical relationship between space and time is beyond the scope of the present study. Suffice it to say that the recruitment of spatial language for the purpose of speaking and thinking about time is ubiquitous cross-linguistically (cf. e.g. Haspelmath 1997 and Moore 2014), and that it can be accounted for in terms of conceptual metaphor, i.e. systematic mapping relations holding between a source domain (in our case space) and a target domain such as time (Lakoff and Johnson 1980, Lakoff 1993). A very common metaphorical construal is of time as a three-dimensional space as in the use of the primarily spatial preposition *in* in temporal expressions such as *in May* (cf. the spatial use of *in* in the preposition phrase *in Russia*), akin to the Russian examples with the preposition *v* 'in(to)' discussed in the present study. For recent discussion of examples from Wolof, see Moore (2014: 263-270).

an event, i.e. adverbials that answer the question “for how long?” rather than “when?”:<sup>30</sup>

- (28) Da ty pi-l vs-ju noč!  
 and you[NOM.SG] drink-PST.M whole-ACC.SG.F night[ACC.SG]  
 I ne vodk-u!  
 and not vodka-ACC.SG  
 ‘And you were drinking **all night!** And not vodka!’ [Andrej Rubanov. Noski (2010)]

Since examples of this kind are not about temporal location, they are not suitable for the constructions with *v*, which are exactly about location in a metaphorical container, as argued above.

A similar explanation can be suggested for the bare instrumental, which, as we have seen, has become the default construction for “cyclic” time in Contemporary Standard Russian. Recall from section 1 that “cyclic” time places the emphasis on quality (what *kind* of time it is), rather than pinpointing when something happened. Locating events in metaphorical containers tells us when something happened, not what kind of time we are dealing with, so “cyclic” time does not lend itself to conceptualization in terms of metaphorical containers. Accordingly, the bare instrumental could survive as a marker of “cyclic” time, since “cyclic” time was less suitable for conceptualization in terms of metaphorical containers than quantitative “linear” time, for which constructions with *v* have become pervasive in Contemporary Standard Russian.

To summarize, the development of the bare instrumental as a means of expressing “cyclic” time appears to be due to language internal factors, namely the tendency towards increasing analyticity, which paved the way for the pervasive use of *v* ‘in(to)’ in temporal adverbials of “linear” time. However, *v* ‘in(to)’ was not compatible with “cyclic” time, and this made it possible for the bare instrumental to develop into a specialized construction for “cyclic” time. Insofar as a language internal factor is shown to play first violin, the development of the temporal bare instrumental construction adds to the growing body of evidence that stresses the importance of language internal factors in the formation of concepts and the linguistic categories that encode them.

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<sup>30</sup> The example is from the Russian National Corpus. Notice that the bare accusative was used to express duration in Old Russian too, as shown by examples of the following type:

- (ii) Svjatopolk-ъ [...] vs-ju nošč-ъ pi-l-ъ bě  
 Svjatopolk-NOM.SG whole-ACC.SG night-ACC.SG drink-PTCP-NOM.SG.M be[AOR.3.SG]  
 s družin-oju svo-eju.  
 with retinue-INS.SG his-INS.SG.F  
 ‘Svjatopolk [...] had been drinking **all night** with his retinue.’ (*Primary Chronicle*, 142,9)

In other words, the bare accusative has not developed a new function, but rather lost one of its original meanings, viz. the ability to serve as temporal adverbials of position.

## 8. Conclusion

The present study has focused on the history of the bare instrumental construction in Russian and its relationship to “cyclic” time. We have seen that in Contemporary Standard Russian the bare instrumental is largely restricted to the natural cycles of day parts and seasons, and in this sense the grammar of Contemporary Standard Russian is highly sensitive to “cyclic” time. However, this state of affairs is of relatively recent origin. Even though the bare instrumental has a long history in temporal adverbials, Old Russian did not have a specialized construction for “cyclic” time. In other words, Old Russian was less sensitive to “cyclic” time than Contemporary Standard Russian.

What does this tell us about language external factors such as culture as motivating factors for language structure? I have argued that the importance of “cyclic” time has decreased in Russian culture. Shifting cultural practices and values therefore cannot explain the increased significance of “cyclic” time in language. Given that “biological clocks” are of fundamental importance for what it means to be a human being, it is not surprising that some languages like Russian choose to increase their sensitivity to this feature, which is so deeply rooted in human nature. In Russian, this is exactly what happened when a language internal factor (increasing analyticity) created an opportunity for the bare instrumental to develop into a marker of “cyclic” time.

Previous studies of “cyclic” time in Russian have emphasized the culture specific aspects of the category. For instance, Zaliznjak and Šmelev (2005) analyze subtle cross-linguistic differences among words denoting “cyclic” time – differences that may reflect cultural differences. It is important to point out that the findings reported in the present study are not at variance with those of Zaliznjak and Šmelev. While Zaliznjak and Šmelev discuss lexical differences, my focus has been on grammar (the use of the instrumental case), and while Zaliznjak and Šmelev are concerned with individual lexical items, I have analyzed the systematic use of the “cyclic” time category. Further research is needed in order to establish what in (the Russian) language mirrors cultural values and practices. However, the present study has shown that language-internal factors play an important role in the shaping of the category of “cyclic” time in the grammar of Russian.

Recent years have witnessed a growing body of evidence testifying to the importance of language internal factors for the formation of concepts. The present study of the concept of “cyclic” time in Russian not only adds to these data, but also indicates that relevant evidence is not limited to synchronic studies. Historical linguistics has much to offer.

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