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Concepts of case and time in Slavic

Introduction

The Slavic languages use the semantics of case in time expressions in a variety of ways. This topic provides an opportunity to discuss the nature and role of metaphor in language, as well as sources of cross-linguistic variation. Data will be drawn primarily from Russian, Czech, and Polish (representing North Slavic), with some comparisons to other languages. This article is based upon nearly fifteen years of research on Slavic case semantics.

Linguistic knowledge, including grammatical meaning, is grounded in perceptual input, determined by the parameters of human embodied experience. Through this experience we receive much more information than we can meaningfully process, and different languages emphasize, ignore, categorize, and grammaticalize this information in various ways. In addition to embodied experiences of physical surroundings, we have other experiences (emotion, imagination, deductive reasoning, abstract thought, etc.). Our understanding of concepts that do not have concrete physical realization is, via metaphor, based on our understanding of concepts that do have concrete physical realization (e.g. love is fire, deductive reasoning is a journey down a path), a process that can be viewed as both highly imperfect (the source and target domains are not identical, creating gaps and opportunities for error or variation) and highly efficient (metaphor readily facilitates grasping a whole complex of relations at once). Various linguistic communities make various decisions about the use of source domains for the understanding of abstract concepts, and these variations in the organization of knowledge teach us about the nature of human cognition, its dynamics and its limits.

The cases of any given Slavic language serve as an enormously powerful yet austere system, enabling users to express all possible relationships they might experience. Thorough descriptions of the case systems of Russian and Czech have been completed (see Janda & Clancy 2002 and Janda & Clancy forthcoming) and a similar description for Polish is under construction. Slavic case systems are based primarily upon concrete spatial relationships, elaborated via metaphorical extension to a multitude of other domains, such as emotion, states of being, and time. At an abstract level, the Slavic languages share the following structure of case meanings:

- **Nominative: a name** (naming, subject); **an identity** (predicate nominative**)**
- **Genitive: a source** (withdrawal); **a goal** (approach); **a whole** (possession/'of', quantification); **a reference** (lack, comparison, near)
- **Dative: a receiver** (indirect object); **an experiencer** (benefit, harm, and modal uses); **a competitor** (equality, submission, domination)
- **Accusative: a destination** (movement, direct object, points in time, durations, distances, amounts)
- **Locative: a place**
- **Instrumental: a means** (means, instrument, path, agent); **a label** (predicate instrumental); **an adjunct** (preposition *s* 'with'); **a landmark** (prepositions of proximal location)

Time is perhaps the only entity which we all agree exists despite the fact that we have no direct evidence of its existence. We have no sensory perception of time, we cannot see or hear or touch it nor measure it directly. If time exists in our everyday human experience at all, it exists purely as an epiphenomenon of effects on ourselves and the things around us. We know time only via observation of present states in comparison with memories of former states. Some of these states have predictable cycles (such as day/night and seasons of the year, as well as other natural processes), permitting us to have the illusion that we are measuring time, but time itself is elusive, more of an abstract construct than a tangible reality.

It seems that all human beings use experiences of space to understand time, despite the obvious shortcomings of the space => time metaphor (for example, space has three dimensions, but time does not; space extends equally in all directions, but time does not; all points in space are equally accessible, but time is accessible only at the unique point of the present moment; we can move around in space, thus mastering it, but we are trapped in time and it masters us; etc.). There are many ways to perform the space => time mapping, as can be seen by comparing languages, or even by comparing time expressions within a single language (for a comparison of time expressions within a single language, see Janda forthcoming b; for a cross-linguistic typological comparison, see Haspelmath 1997). This article will look specifically at how the semantics of Slavic case systems are used to map space to time, examining both phenomena that are pan-Slavic, as well as phenomena that show variation across Slavic languages. Time expressions indeed constitute one of the most obvious sources of cross-linguistic variation in the use of cases in Slavic. Twenty-nine discrete case contrasts have been identified in a comparative study of Slavic case systems (Janda forthcoming a & forthcoming c), and nine of these contrasts (eg., one-third of the total number) involve time expressions. Indeed, the concept of time is responsible for more variations in case usage across the Slavic languages than any other cognitive domain.

Analysis

The remainder of this article will list and analyze a representative sample of the space => time metaphorical mappings evident in case constructions in Czech, Polish, and Russian. We will commence with a survey of the convergent uses of each case, examining time expressions with the same or similar structure across the three languages, extablishing a baseline of metaphorical coherence. Then we will turn to an analysis of divergent uses of case to express concepts of time, detailing the various metaphorical motivations that underpin these expressions.

Convergent time expressions

As shown in Table 1, all cases except the nominative participate in one or more constructions shared by Czech, Polish, and Russian for the expression of temporal

relationships. These constructions are indicative of the baseline cognitive structures common across North Slavic, and will serve as the background against which divergent time expressions will be examined. These convergent time expressions will be discussed briefly in the following sections.

Table 1: Convergent uses of case in time expressions in Czech, Polish, and Russian

ACCUSATIVE		
travel through space => time elapsed		
*Spali jsme **celou noc***	*Spaliśmy **całą noc***	*My spali **vsju noč'***
(time after or before)		
*za **týden**; **týden** před tím*	*za/w **tydzień***	*čerez/v/za **odnu nedelju**, **odnu nedelju** pogodja/spustja; (za) **odnu nedelju** do/nazad*
(difference in time)		
*přijet o **15** minut pozdě*	*przyjść **15** minut później*	*opozdat' na **15** minut*
(*po* + ACC -- up to a certain time)		
*Od poloviny ledna až po **konec** února*	*po **dziś dzień***	*S serediny janvarja po **konec** fevralja*
(*po* + ACC -- for a certain time)		
*po **celou dobu***	*Pracować po **dwanaście** godzin na dobę*	
moving to a destination => taking place at a time (*v/w* + hour or day)		
*v **pět** hodin, v **sobotu**, v **tu dobu***	*w **sobotę***	*v **pjat'** časov, v **subbotu**, v **to vremja**, v **naši vremena**, v **vos'midesjatye gody***
(*pod* + ACC -- toward)		
	*pod **wieczór***	*My vernulis' pod **utro***
arrival at => beginning of expected elapse of time		
*přijet na **týden***	*przyjechać na **tydzień***	*priexat' na **nedelju***

skipping a space => skipping a time (R *čerez* + ACC; P *co* + ACC Cz *ob* + ACC)		
*Ob **týden** jedeme k babičce.*	*Co **drugi tydzień**…*	*Čerez **každuju nedelju** my ezdim k babuške.*
GENITIVE		
part of whole object => part of period of time		
*prvního **listopadu***	*pierwszego **listopada***	*v sem' časov **večera**; pervogo **nojabrja***
reference point in space => reference point in time		
osmého** srpna; **toho dne**; za/během **války	***ósmego** sierpnia; **tego dnia**; w czasie **wojny***	***vos'mogo** avgusta (**segodnja**); vo vremja **vojny***
(around -- approximate reference point)		
*kolem **čtvrté hodiny***	*około **czwartej***	*okolo **četyrex časov***
point of origin of movement => time from which something begins		
*od **ledna**, od **prvního května**, od **rána***	*od **pierwszego maja**, od **tego dnia**, od **rana***	*s **janvarja**, ot **pervogo** maja*
goal of movement => time by/until which something is done (until/before)		
*do **rána**, do **večera***	*do **wieczora***	*do **utra/vojny**, do **six por***
(time by which something gets done)		
*do **soboty**, do **týdne***	*do **soboty***	
LOCATIVE		
location in space => location in time (*v/w* + periods of time as bounded spaces)		
*v **listopadu**, v **tom roku**, v **osmdesátých letech**, v **budoucnu**; v **létě**, v **zimě**; ve **dne**, v **noci***	*w **listopadzie**, w **tym roku**, w **latach osiemdziesiątych**, w **przyszłości**, w **nocy**, w **tym dniu**, w **naszych czasach***	*v **nojabre**, v `**etom godu**, v **vos'midesjatyx godax**, v **buduščem***
(*na*)		
*na **jaře***		*na `**etoj nedele***
(*o* meaning at or during)		
*o **šesté hodině**, o **Vánocích***	*o **szóstej** (**godzinie**)*	

location following along => location after in time (*po* meaning after)		
po obědě, po hodině	*po obiedzie, po godzinie*	rare: *po istečenii* sroka
DATIVE		
movement toward something exerting control => time coming to a certain point		
k ránu, k večeru	*(Ma się)* **ku wieczorowi**	*k večeru/desjatomu času*
INSTRUMENTAL		
path as a means to travel => time period as a conduit for activity (seasons and parts of days)		
tou dobou, časem	*wiosną, latem, jesienią, zimą, wieczorem, nocą, dniem, czasem*	*zimoj, letom, osen'ju, vesnoj, utrom, dnem, večerom, noč'ju*
(times = paths)		
chvílemi	***całymi dniami, nocami, latami, godzinami***	***časami, vekami***
point in front of => time before (*před/przed* + INST = ago)		
před **čtyřma roky**	*przed* **czterema laty**	

The accusative case in convergent time expressions

Convergent uses of the accusative case entail four space => time metaphors: 1) use of concepts associated with travel through space as a source domain for time elapsed; 2) understanding movement to a destination as a source domain for when something takes place; 3) use of the concept of arriving as a source domain for the initiation of an expected elapse of time; and 4) the use of skipping a space as a source domain for skipping a time.

Movement proceeds through space (a dimension we can perceive) and is simultaneously extended through time (a dimension we cannot directly perceive). Activities that do not involve travel can be measured only by their extension through time, and movement through time is equated with travel through space in order to facilitate this task. The following examples illustrate the metaphorical understanding of duration as travel through space:

Cz *Spali jsme **celou noc**, za **týden***; P *Spaliśmy **całą noc**, za **tydzień***; R *My spali **vsju noč'**, za **odnu nedelju*** 'We slept **the whole night**, in **a week**'

In all three languages, these expressions are based upon spatial expressions of identical structure containing motion verbs and distances (such as Czech *Jeli jsme **celý kilometr**, za **kilometr*** 'We rode **a whole kilometer**, **a kilometer** away'; similar constructions exist in Polish and Russian). This use of the accusative case indicates that in the three languages the duration of an activity is understood as the movement of an object through space. The same logic of using travel through space to understand the duration of activities works also for other convergent uses listed in the table, including difference in time (which uses the same construction one would use for distance or other comparative measurements), as well as the use of the preposition *po* 'up to, for' to further specify the path of movement (left unspecified in the bare case usage).

The metaphor that uses movement to a destination to understand the concept of taking place at a time is likewise ubiquitous in our three languages, at least when we are referring to the day on which something happens; if we are specifying an hour, we can use the accusative in both Czech and Russian, but Polish uses the locative (a contrast we will return to below). In all of these languages there exist constructions containing motion verbs and prepositions governing the accusative case (though for Czech and Polish much destinational motion involves the preposition *do* plus the genitive, *na* plus accusative is still very common, and there are some vestiges of *v/w* with the accusative):

Cz *v **sobotu** v **šest** hodin*; P *w **sobotę*** [but: *o szóstej godzinie*]; R *v **subbotu** v **šest'** časov* 'on **Saturday** at **six** o'clock'

If a destination in space is the point where something goes, then a destination in time is the point when something happens. In comparison with English, this combination of events with temporal destinations seems exotic, since we are accustomed to thinking of events as taking place in temporal locations instead. Here aspect seems to play a major

role by organizing verbal action into events with a prior existence that then enter the timeline of history. Aspect gives action the contours of objects, making it possible for them to have an atemporal existence and be mentally manipulated. We will discuss the role of aspect in further expressions for when something happens below under divergent uses of case. The notion of a destination being a time when something happens is also available with the preposition *pod* 'toward' in Polish and Russian, as indicated in the table.

In all three languages movement directed toward arrival at a place is used to understand purposeful action in general. Some purposeful actions involve planning something for a given duration of time, and thus via the metaphorical understanding of purpose as directed motion, we see that arrival at a place is the source domain for understanding the beginning of an expected elapse of time:

Cz *přijet na **týden***; P *przyjechać na **tydzień***; R *priexat' na **nedelju*** 'come for **a week**'

Here, arrival at a place provides the concepts needed for understanding the onset of a planned amount of time to be spent somewhere or doing something.

Just as people and objects can skip from one point to another, jumping over those in between, activities can also skip from one point in time to another, using the same accusative case constructions for both spatial and temporal leaps:

Cz *ob **týden***; P *co **drugi tydzień***; R *čerez **každuju nedelju*** '**every** other **week**'

The genitive case in convergent time expressions
Like the accusative case, the genitive case provides four metaphorical space => time mappings shared by Czech, Polish, and Russian: 1) the part-whole relationships of objects and their constituents serve as a source domain for understanding time periods and the units of which they are composed; 2) reference points in space serve as a source domain for understanding reference points in time; 3) the point of origin of movement in

space serves as a source domain for understanding the time at which something begins; and 4) the goal of movement serves a source domain for understanding the time by which something is done.

If physical objects can be thought of as parts that add up to wholes, then this conceptualization can also be applied to temporal objects, periods of time that contain parts. All three languages regularly use the genitive case to describe the relationship of a whole to its parts, and they all extend this concept to the domain of time:

Cz *prvního* **listopadu**; P *pierwszego* **listopada**; R *pervogo* **nojabrja** 'the first **of November**'

Here an extended time period (a month) is treated like a discrete object which has parts (days), just as a concrete object (say, a house) is composed of parts (windows, doors, floors, etc.).

Although our three languages all use the genitive case to identify spatial reference points, they do so with the added help of prepositions to indicate precise relations (the preposition *u* 'by, near', shared by all three languages, is a prime example). When this concept is transferred to time (with less dimensions than space), reference points can appear with the bare genitive case or with a preposition, as we see in these examples:

Cz **osmého** *srpna*; P **ósmego** *sierpnia*; R **vos'mogo** *avgusta* '**on the eighth** of August'
Cz *kolem* **čtvrté hodiny**; P *około* **czwartej**; R *okolo* **četyrex časov** 'around **four o'clock**'

In these examples specific times are understood as points of reference in the landscape of time.

Leaving from a place can be expressed with the prepositions *od/ot* and *s* 'from' with the genitive, and the source point of movement can use the same construction, although the specific distribution with various time periods differs slightly:

Cz *od **ledna***, *od **prvního května***, *od **rána*** 'beginning in **January**, from **the first of May**, since **morning**'; P *od **pierwszego maja***, *od **rana*** 'from **the first of May**, since **morning**'; R *s **janvarja***, *ot **pervogo maja*** 'beginning in **January**, from **the first of May**'

These examples demonstrate that movement from a place is used as the model for understanding the temporal onset of an activity.

The concept of a goal is readily accessible in the domains of both space and time. Whereas a spatial goal is roughly the equivalent of a destination, the point where travel ends, a temporal goal is the time when we expect something to be done, the point where temporal extension ends, often understood as a deadline. All three languages can use *do* 'to' with the genitive case to describe the reaching of spatial goals, and all three languages also extend this concept to time, as we see in these examples:

Cz *do **večera*** 'by/until **evening**'; P *do **wieczora*** 'by/until **evening**'; R (*do **večera***), *do **utra*** '(by/until **evening**) by/until **morning**'

Movement to a place is thus used as the model for understanding activity continuing until a certain time (usually the time when it ends). In Czech and Polish it is also possible to use this construction with days of the week to indicate deadlines, as we see in the table.

The locative case in convergent time expressions
The locative case participates in two types of convergent constructions used to express time in our three languages via space => mappings: 1) location in space can serve as a source domain for temporal locations describing times when things happen; and 2) a location following the contours of an object can serve as a source concept for the understanding of an event following after another event in time.

The first type of locative construction is very prevalent and forms a natural parallel to many English time expressions. Note, however, that in our North Slavic

languages, this type of construction is generally used with extended periods of time (rather than with points in time). The presence of an extended duration is a hallmark of this type of time expression, as seen in these examples:

Cz *v listopadu*, *v tom roku*, *v osmdesátých letech*, *v budoucnu*, *v létě*, *v zimě*, *v noci*, *na jaře* 'in **November**, in **that/this year**, in **the eighties**, in **the future**, in **summer**, in **winter**, in **the night**, in **the spring**'; P *w listopadzie*, *w tym roku*, *w latach osiemdziesiątych*, *w przyszłości*, *w nocy* 'in **November**, in **that/this year**, in **the eighties**, in **the past**, in **the night**'; R *v nojabre*, *v `etom godu*, *v vos'midesjatyx godax*, *v buduščem*, *na `etoj nedele* 'in **November**, in **that/this year**, in **the eighties**, in **the future**, (during) **that week**'

In all of these expressions a time period is a temporal location for an event. Where the preposition *v/w* is used, the temporal location is conceived of as a container; where the preposition *na* is used, the temporal location is conceived of as an unbounded space. In either case, the event is interacting with a period of time that has some extension. As noted in the table, the preposition *o* 'at, during' can also be used in this meaning in Czech and Polish; this use will be contrasted with its Russian equivalent in the discussion of divergent constructions below.

The second type of locative construction involves the use of the preposition *po* which is the primary means for expressing 'after' in both Czech and Polish, and does appear rarely in this use in Russian (where it is restricted largely to fixed, bookish expressions). In Russian the connection to the corresponding spatial expression is by now missing, since Russian has changed the case governance for spatial *po* to the dative. In all three languages, however, spatial *po* describes something that gives spatial contours that are followed. The sense of following, when transferred to the unidimensional domain of time, is understood as following after, indicating sequentiality, as we see in these examples:

Cz *po* **obědě**, *po* **hodině** 'after **lunch**, **an hour** later'; P *po* **obiedzie**, *po* **godzinie** 'after **lunch**, **an hour** later'; R (rare) *po* **istečenii** *sroka* 'after **the completion** of the (designated) period'

Thus the lunch, hour, or deadline serve as the time after which another event follows.

The dative case in convergent time expressions

The hallmark characteristic of the dative case is that it marks a participant that exerts some control, and this is just as true when the dative case is accompanied with a preposition. The preposition *k* 'to, toward', when used in expressions of spatial motion, is opposed to all other prepositions with this meaning (*v/w* and *na* with the accusative and *do* with the genitive) in that it is used with people when they are destinations (though Polish does deviate from this pattern by using *do* with people). The point is that people are able to exert control and are therefore distinct from inanimate destinations. If we go to a person, we will interact with them, they will have some control over what happens at the destination. All three of our languages have transferred this concept from the domain of space to time, using times that necessarily signal a change in human activity.

Cz *k* **večeru** 'toward **evening**'; P *Ma się ku* **wieczorowi** '**Evening** is coming on'; R *k* **večeru** 'toward **evening**'

Evening is a significant boundary at which activities change, and movement toward this boundary suggests an upcoming interaction with it, just as movement toward a person suggests an upcoming interpersonal interaction. In Russian this usage can be extended to many other types of temporal boundaries, but in Polish its use is quite restricted.

The instrumental case in convergent time expressions

In the domain of space, the existence of a path facilitates travel because a path provides the means for movement, and all three of our languages can express travel by means of some path with the instrumental (though this usage is far more common in Czech and Polish than it is in Russian). Travel is thus extended along a path, or conversely one could

understand the path as the conduit for travel, the place through which it goes. When we apply these conceptual relationships to the domain of time, we are equating paths with durations and activities with travel, resulting in designations of time periods through which an activity extends, as in these examples:

Cz ***tou dobou***, ***časem***, ***chvílemi*** '**during that time**, **with time**, **at times**'; P ***wiosną***, ***latem***, ***jesienią***, ***zimą***, ***wieczorem***, ***nocą***, ***dniem***, ***całymi dniami***, ***nocami***, ***latami***, ***godzinami*** '**in spring**, **in summer**, **in fall**, **in winter**, **in the evening**, **at night**, **during the day**, **for whole days at a time**, **during the nights**, **in the summers**, **for years**'; R ***zimoj***, ***letom***, ***osen'ju***, ***vesnoj***, ***utrom***, ***dnem***, ***večerom***, ***noč'ju*** , ***časami***, ***vekami*** '**in winter**, **in summer**, **in fall**, **in spring**, **in the morning**, **during the day**, **in the evening**, **at night**, **for hours**, **for centuries**'

The use of the instrumental with stretches of time in these expressions metaphorically captures this sense of travel by means of a path. Once again we see activity traveling through time the way that objects travel through space. Note that Polish and Russian make greater use of this type of time expression, and more readily extend it to plural temporal paths than Czech.

Czech *před*, Polish *przed*, and Russian *pered* are etymologically the same preposition, all used to indicate spatial location of an object in front of another object. Czech and Polish use this preposition metaphorically in the domain of time to signal its temporal parallel, using the logic that if an event is in front of a time period, that means that it happens before the given time period, as we see in these examples:

Cz *před* ***čtyřma roky***; P *przed* ***czterema laty*** '***four years*** ago'
Thus a prior time is understood as located in front of the period of time that separates us from it.

Overall, the convergent time expressions demonstrate the various ways in which spatial metaphors are deployed in the realm of time. Events and activities correspond to

physical objects and landscape features in a unidimensional timeline. These temporal objects can either move along the timeline or mark fixed places on its landscape. Landscape features can have various shapes (resembling containers, unbounded surfaces, etc.) and characteristics (consisting of parts, having front vs. back asymmetry, exerting control, etc.).

Divergent time expressions

When Czech, Polish, and Russian differ in their use of case in time expressions, they do so by selecting different metaphors to represent conceptualizations of time. The various options available are precisely those that can be deduced from the preceding description of convergent time expressions, involving static vs. mobile temporal objects, as well as variations in other features of the temporal landscape. The examples to be discussed are presented in Tables 2 and 3.

Table 2: Divergent uses of case in time expressions in Czech, Polish, and Russian

Static vs. mobile event/objects

locative: a place vs. accusative: a destination		
*v **šest** hodin/o **šesté hodině** ACC/LOC*	*o **szóstej (godzinie)** LOC*	*v **šest' časov** ACC*
locative: a place vs. instrumental: a means vs. accusative: a destination		
*na **jaře**, na **podzim**, v **létě**, v **zimě**, v **noci** LOC/ACC*	***wiosną**/na **wiosnę**, **latem**/w **lecie**, **zimą**/w **zimie**, **nocą**/w **nocy** INST/LOC/ACC*	***vesnoj**, **letom**, **osen'ju**, **zimoj**, **noč'ju** INST*
instrumental: a landmark vs. accusative: a destination		
*Přestěhovali jsme se sem před **rokem** INST*	*Przenieśliśmy się tutaj **rok** temu ACC*	*My sjuda pereexali **god** nazad ACC*
instrumental: a landmark vs. dative: a competitor and genitive: a goal		
*Přijedu domů do **desáté hodiny** GEN*	*Będę w domu przed **dziesiątą** INST*	*Prijedu domoj k **desjati časam** DAT*
genitive: a reference and locative: a place vs. accusative: a destination		
***toho dne**; **letošního roku** GEN*	***tego dnia**/w **tym dniu**; **tego roku**/w **tym roku** GEN/LOC*	*v `**etot den'**`; v `**etom godu**` ACC/LOC*
*za **komunismu**; o **Vánocích** GEN/LOC*	*w czasach/za **komunizmu**; w **Święta** Bożego Narodzenia GEN/ACC*	*pri **komunisme**; na **Roždestvo** LOC/ACC*

Table 3: Other divergent uses

accusative: a destination vs. instrumental: a means		
*To trvalo **století** ACC*	*To trwało przez **wieki** ACC*	*`Eto prodolžalos' **vekami** INST*
genitive: a reference vs. nominative: a name		
*Dnes je/Zítra bude **čtvrtého** GEN*	*Dzisiaj jest/Jutro będzie **czwarty** NOM*	*Segodnja/Zavtra budet **četvertoe** NOM*
locative: a place vs. genitive: a reference		
*po **obědě** LOC*	*po **obiedzie** LOC*	*posle **obeda** GEN*

Static vs. mobile conceptualizations in divergent time expressions

Because aspect plays a fundamental role in facilitating mobile conceptualizations of time in Slavic, it will be necessary to indulge in a brief digression concerning how and why this is possible. The topic of Slavic aspect is enormous, but I will confine myself to discussion of concepts that directly motivate mobile conceptualizations of time. Vast quantities of literature could be cited here, but works by Dickey (2000), Čertkova (1996), Binnick (1991), Durst-Andersen (1992), and Langacker (1997) have been particularly crucial in formulating this analysis. Their ideas are consistent with and motivate my interpretation, but the notion of mobile conceptualizations of time presented here is novel.

A basic difference between nouns and verbs is that nouns describe items that are independent of time, whereas verbs describe items (activities and events) that are not independent of time. What Slavic aspect does is to assign all verbal action event status that gives it some independence from time. In Slavic languages, verbal stems do not exist without aspectual markers -- this means that Slavs do not talk about activity without designating aspect. (The jury is still out on how biaspectual verbs perform in this system – are they actually lacking aspect, or do they just have zero markers, since they behave just like aspectually marked verbs?) There is no "pure" activity as such, but rather only events whose shape has been determined by aspect. We can say simply that aspect

performs ontological metaphor on all activities in Slavic, such that all activities are objectified as events, and thus metaphorically manipulable as objects (here the term ontological metaphor is used as first identified in Lakoff & Johnson 1980). There are two types of event/objects: perfective event/objects, which are conceived of as occupying time the way that a discrete concrete object occupies space; and imperfective event/objects, which are conceived of as occupying time the way that a substance occupies space. To contrast with English, in English we worry first about where an activity is located in time -- what sort of event it constitutes is a secondary concern that need not be addressed at all. In Slavic, however, it is obligatory that we determine what sort of event is involved -- its location in time is a secondary concern. The ontological objectification of activities as events makes it possible to conceive of them as separable from the timeline. In other words, event/objects have an existence of their own, independent of where they might ultimately be located in time.

This objective existence of events, imposed by aspect, facilitates two cognitive strategies for describing when an event takes place. One strategy parallels English and uses static locational expressions, indicating that a time when something happens is metaphorically equivalent to a place where something is located. The other strategy understands events as objects that can move -- the place where they enter the timeline, their temporal destination, is the time when they happen. It is as if we said in English *She arrived **into** Saturday*, which of course we can't say. But in Czech, Polish, and Russian this is in fact the only way to indicate that something happened on a given day (cf. the discussion of the accusative case in convergent time expressions above).

Aspect, in a sense, gives event/objects an identity, enabling motion. This option for an event to move in time is exploited in the example sets in Table 2. All of these example sets contrast a conceptualization of an event as an object at a static location with an event as an object arriving at a temporal destination. A brief discussion of these examples follows. All of these conceptualizations have been discussed above in greater detail in the sections on the convergent uses of case. Static locations are marked by the use of locative: a place, instrumental: a landmark (with a locational preposition), and

genitive: a reference. Mobile interpretations of time make use of accusative: a destination, instrumental: a means (marking temporal pathways), dative: a competitor (marking destinations that exert control), and genitive: a goal (likewise marking destinations).

The first contrast in Table 2 opposes a static interpretation of time imposed by the locative case in Czech and Polish with a mobile conceptualization using the accusative case in Czech and Russian:

Static: Cz *o šesté hodině*; P *o szóstej (godzinie)* 'at **six o'clock**'
Mobile: Cz *v šest hodin*; R *v šest' časov* 'at **six** o'clock'

Both types of conceptualization are widespread in all three languages, but are at odds with each other when it comes to stating the hour at which something takes place.

In the next set of examples the locative again presents a static conceptualization, here opposed to the instrumental which interprets an event as proceeding through a temporal conduit, and the accusative makes a couple of appearances as well:

Static: Cz *na jaře*, *v létě*, *v zimě*, *v noci* 'in **spring**, in **summer**, in **winter**, in **the night**';
P *w lecie*, *w zimie*, *w nocy* 'in **summer**, in **winter**, in **the night**'
Mobile: Cz *na podzim* 'in **fall**'; P *wiosną/na wiosnę*, *latem, zimą, nocą* 'in **spring**, **in summer**, **in winter**, **in the night**'; R *vesnoj, letom, osen'ju*, *zimoj, noč'ju* '**in spring**, **in summer**, **in winter**, **in the night**'

When something has happened some time ago, this can be understood as a static relationship between the time period and the event, using the instrumental case to mark the temporal landmark, or as a mental movement across the intervening time period, using the accusative case, as we see in this set of contrasts:

Static: Cz *Přestěhovali jsme se sem před rokem* 'We moved here **a year** ago'

Mobile: P *Przenieśliśmy się tutaj* **rok** *temu*; R *My sjuda pereexali* **god** *nazad* 'We moved here **a year** ago'

If an hour is stated as the deadline for doing something, each language uses a different case; Polish uses the instrumental in its landmark-designating function to give a static interpretation of this relationship, whereas Czech and Russian prefer mobile interpretations using the genitive (designating goals) and dative respectively:

Static: P *Będę w domu przed* **dziesiątą** 'I'll be home by **ten o'clock**'
Mobile: Cz *Přijedu domů do* **desáté hodiny**; R *Prijedu domoj k* **desjati časam** 'I'll come home by **ten o'clock**'

The last two sets of examples in Table 2 oppose static temporal relationships provided by the genitive (designating reference points) and locative with mobile relationships provided by the accusative:

Static: Cz **toho dne**; **letošního roku** 'on **that day**, in **this year**'; P **tego dnia**/*w* **tym dniu**; **tego roku**/*w* **tym roku** 'on **that day**, in **that/this year**'; R *v* **`etom godu** 'in **that/this year**'
Mobile: R *v* **`etot den'** 'on **that/this day**'

Static: Cz *za* **komunismu**, *o* **Vánocích** 'during **the time of communism**, during **the Christmas holidays**'; P *w czasach/za* **komunizmu**; R *pri* **komunisme** 'during **the time of communism**'
Mobile: P *w* **Święta** *Bożego Narodzenia*; R *na* **Roždestvo** 'during **the Christmas holidays**'

The fact that Slavic aspect facilitates the interpretation of temporal relationships as based on movement provides an alternative to static interpretations of these relationships, and this contrast is the major source of differences in case usage among Czech, Polish, and Russian.

Other alternative conceptualizations in divergent time expressions

In a sense, the remaining case contrasts continue the theme of mobile and static interpretations of how events interact with the timeline. The first set of examples demonstrates how various mobile interpretations differ, and the final two sets of examples contrast various static interpretations.

Accusative: a destination vs. instrumental: a means contrast two kinds of motion for the event/object relative to its duration – one motion is a destinational trajectory through a time period (the strategy used by Czech and Polish), and the other is a path serving as a conduit for motion (the strategy used by Russian):

Destinational trajectory: Cz *To trvalo* **století**; P *To trwało przez* **wieki** 'That lasted for **centuries**'

Conduit for motion: R `*Eto prodolžalos'* **vekami** 'That lasted for **centuries**'

The last two example sets contrast various static interpretations of time -- genitive: a reference vs. nominative: a name and locative: a place vs. genitive: a reference. Both reference points and names are handy ways to indicate an item, motivating the first set:

Reference point: Cz *Dnes je/Zítra bude* **čtvrtého** 'Today is/Tomorrow will be **the fourth**'

Name: P *Dzisiaj jest/Jutro będzie* **czwarty**; R *Segodnja/Zavtra budet* **četvertoe** 'Today is/Tomorrow will be **the fourth**'

And finally, both a place and a reference point can be used to triangulate between the moment of speech, a given time, and an event that follows that time, as we see in these examples:

After a Place: Cz *po* **obědě**; P *po* **obiedzie** 'after **lunch**'

After a Reference point: R *posle* **obeda** 'after **lunch**'

Conclusions

In summary, cases present a rich repertoire of conceptualizations of time, illustrating the power of metaphor in grammar and in human cognition. Events can exist before time and move into their slots in time, time can be a series of points with relationships to events and each other. Durations can be represented as paths through a temporal landscape, as bounded areas that contain events, as complex objects that have parts, or even just as nearby landmarks giving a point of reference. Cognitively we can move toward, away from, and along points in time, or even just jump right over them. Aspect plays a crucial role in facilitating interpretations of temporal movement, and furthermore, it appears that verbs of motion, describing how objects move through space, serve as the prototypical models for understanding how the activities of all other verbs are extended through time. Through imagination we are able to perform all kinds of manipulations that are physically impossible for us, and much of this superhuman power has been conventionalized in our grammars, and specifically in the case semantics of Czech, Polish, and Russian.

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