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Eric Corre

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Eric Corre
 Université Sorbonne Nouvelle – Paris 3

Preverbs in Russian: situation or viewpoint aspect?

1- Introduction

Many languages use adpositional morphemes, either verbal prefixes (henceforth, preverbs) or particles, as a means to extend the morphological possibilities, and consequently the lexical inventory, of verbs. Such morphemes traditionally add spatial and/or directional, temporal and/or aspectual, or simply idiosyncratic, information to a verb's root. In Russian, where the system of temporal marking is impoverished (reduced to one present-future tense and one past tense), preverbs are used to encode such distinctions. Each verb is either *soveršennyj* ("accomplished", translated as "perfective", henceforth pf) or *nesoveršennyj* ("unaccomplished", translated as "imperfective", henceforth imp). The vast majority of base verbs (or simplex stems) are imp, but there are exceptions. The addition of a preverb systematically derives a corresponding pf verb, as in (1) :

- (1)
- a- *Poka on e-l buterbrod, za-zvoni-l telefon.*
 while 3SG eat.IPFV-PST.3SG sandwich, za-ring.PF-PST.3SG phone
 "While he was eating the sandwich, the phone rang."
- b- *On s'-e-l buterbrod i lëg spat'.*
 3SG s'-eat.PFV-PST.3SG sandwich and go.PFV.PST.3SG to-bed
 "He ate (finished eating) his sandwich and went to bed."

This example has an Accomplishment VP: the (a) sentence, which describes a progressive event, require the use of the imp bare verb, while the (b) sentence, which force a perfective viewpoint, has the preverb *s'*- added to the imp root, and the verb becomes pf. This contrast raises the question of the role of the preverb: does it encode viewpoint aspect, i.e., the perfective viewpoint much like the simple past in English, or is it, rather, a telicizer which adds an inherent limit to the verb's denotation, or does it fulfil both functions?

Aktionsart, or situation aspect (henceforth, SA), concerns inner aspect, i.e., whether a given VP implies an inherent endpoint to the event. Viewpoint aspect (henceforth, VA), or outer aspect, concerns the relation between the event and a temporal interval: the perfective viewpoint includes both endpoints of the event within a closed temporal interval, while the imperfective viewpoint includes part of the event within an open interval. The data in (1) are incomplete; they suggest that the morphology - presence *vs.* absence of the preverb - affects both SA and VA. But the base verb, i.e. the morphologically imp verb in Russian, can in fact express *perfective VA*:

- (2)
- Včera Ivan gotovi-l, stira-l bel'ë i smotre-l televizor.*
 yesterday Ivan cook.IPFV-PST.3SG wash.IPFV-PST.3SG linen and watch.IPFV-PST.3SG television
- "Yesterday Ivan cooked, washed clothes and watched TV".

2.2. Purely perfectivizing or empty preverbs, or “natural perfectives” (Janda 2007)

At the other end of the spectrum is the “empty” preverb, discussed by Maslov (1948), Vinogradov (1972), Tixonov (1962), Avilova (1976), among others. These preverbs form an aspectual pair with the base verb without changing its meaning. For example, the base imp verb *pisat'*, ‘write’, is paired with *napisat'*, “preverbna-write”, which is used whenever the notion *pisat'* is used in a perfective context.

(5) *pisat'/na-pisat'*, ‘write’; *čitat'/pro-čitat'*, ‘read’; *delat'/s-delat'*, ‘do’; *gotovit'/pri-gotovit'*, ‘prepare’; *stroit'/po-stroit'*, ‘build’; *slyšat'/u-slyšat'*, ‘hear’; *myt'/vy-myt'*, ‘wash’; *platit'/za-platit'*, ‘pay’; *portit'/is-portit'*, ‘waste, damage’...

One overwhelming piece of evidence in favor of the purely functional role of the empty preverb is that these prefixed perfectives do not derive a secondary imp, although it would be morphologically possible to do so: **napisyvat'*, **sdelyvat'*, **postraivat'*, **zaplačivat'*, etc., do not exist.

The concept of aspectual pairing has generally been described in semantic terms: the most natural aspectual verbal pair is one in which the imp verb denotes the development phase of the dynamic event while the prefixed pf verb indicates attainment of the telos, deriving an accomplishment or an achievement. This process has had the effect of excluding stative verbs, which lack a telos, activity verbs, which are atelic, and degree achievement verbs, which lack an inherent final point. Yet, with few exceptions, all verbs in Russian have an aspectual correlate. This has led some authors, notably Filip (2006), to call into question the systematic telicity-marking role of the preverbs: states, activities and degree achievements being deprived of a telos in their denotation, the preverb cannot mark telicity. In section 4, we will see that it is possible to give a unified account of pf prefixation if we relax the requirement that preverbs indicate the attainment of the *lexical* telos.

2.3. “Superlexical preverbs”, “procedurals” (Forsyth 1970) or “complex acts” (Janda 2007)

The superlexical preverbs yield complex events. They take an activity verb as input and impose a (temporal or quantificational) limit of some kind on the activity. They thus contribute to event structure (hence the term “superlexical”). However, they are generally denied full grammatical status because they do not constitute a perfect pf correlate to an imp verb; they can be left unpaired. For example, from the imp base Activity verb *kričat'*, “shout”, the following verbs can be derived with a “superlexical” preverb:

(6) *Kričat'* > *za-kričat'* (ingressive, ‘start to shout’) / *po-kričat'* (delimitative, ‘shout for a while’) / *na-kričat'-sja* (cumulative, ‘shout a lot’) / *po-krik-ivat'* (distributive, ‘shout from time to time or at several people’) / *krik-nut'* (semelfactive, ‘give one shout’).

The linguists who classify superlexicals as a functional category distinct from meaning-modifying preverbs (Smith 1991, Binnick 1991, Svenonius 2004, Ramchand 2004) essentially base their classification on the contrast between the spatial and idiosyncratic meanings provided by the latter and the more systematically temporal readings for the former. As Lakorczyk (2010) notes for Polish, however, this classificatory choice is not supported by syntactic, semantic and morphological evidence.

First, the predictability of the meanings of the superlexicals is not as systematic as has been claimed. Even one of the most common of this class of preverbs, inceptive *za-*, is subject to idiosyncratic constraints, just like any other lexical preverb :

(7)

a- *Motor za-rabota-l*motor **za**-work.PFV-PST.3SG

“The motor started functioning”

b- **Ivan se-l za stol i za-rabota-l*Ivan sit.PFV-PST.3SG at table and **za**-work.PFV-PST.3SG

“Ivan sat down and started working”

Za- is felicitous only if the inchoation or ingression occurs against the background of its absence, i.e. if the entity that initiates a process functions on a binary mode (Paillard & Fici Giusti 1996). This explains why (7a) is felicitous, and (7b) is not.

Moreover, except for the case of distributive and delimitative *po-* (henceforth, *po-delim*), all of the superlexicals give rise to telic readings. Even the case of *po-delim* verbs needs to be qualified for Russian, since more and more of them actually do occur as normal pf partners of bare imp verbs and test as telic (see section 4). Furthermore, even if some superlexicals are indeed unpaired pf verbs (e.g., the verb *kričat'* does not derive secondary imperfectives: **zakrikivat'*, **nakrikivat'sja*, do not exist), many other pf superlexicals in Russian *are* paired with an imp verb obtained by regular secondary imperfectivization (SI):

(8)

za-govori-t' / *za-govar-iva -t'*, “start talking”**za**-STEM-INF / **za**-STEM-2.IPFV-INF*za-pet'* / *za-pe-va-t'*, “start singing”*na-gulja -t' -sja* / *na-gul -iva -t' -sja*, “walk to one’s heart’s content”;**na**-STEM-INF-REFL / **na**-STEM-2.IPFV-INF-REFL*na-es-t'-sja* / *na-eda-t'-sja*, “eat a lot”.

This section has shown that the three traditional categories largely overlap, both in their morphological form and their grammatical behavior. The overwhelming generalization that emerges from the data presented above is that the addition of a preverb almost invariably (save for *po-delim*) turns an atelic predicate (an imp verb) into a telic predicate (a pf verb). I will therefore endorse the claims made by Borer (2005) and Lakorczyk (2010) that Russian preverbs are all telicity markers, with the proviso that the term telicity needs to be somewhat revised and extended. In particular the term must include *po-delim* verbs, which behave more and more frequently as telic partner verbs in Russian. We will adopt a more “relaxed” notion of telicity similar to what Mehlig (2008) and Padučeva & Pentus (2008) refer to as *terminativity*.

3- Are the preverbs exponents of “pre-functional” telicity or full telicity?

We noted immediately above that the vast majority of preverbs turn a base imp verb into a telic pf verb. This overwhelming observation should lead all authors to agree on the basic *Aktionsart* function of Russian aspect: it is situation aspect (SA) that is grammaticized in Russian. However, as we also saw above, superlexicals seem to be a mixed category: some of

these pf verbs occur with an imp partner while others do not. For this reason, some scholars, such as Schoorlemmer (2004) and Filip (2005, 2008) deny a full grammatical function for the preverb.

In this section we will first discuss the influential work of Hana Filip which assigns a pre-functional status to these preverbs. We will then argue for an alternative model, based on Borer (2005), Mehlig (2008), and Lakorczyk (2010), in which all prefixes are grammatical exponents of telicity, and the semantic notion of telicity is instantiated syntactically through a quantity range assignment to an Asp head, AspQ (cf. Borer 2006:159). We will propose that this quantity assignment is not strict quantization, which poses the existence of an incremental relation that maps part of an individual to part of an event; rather it is *terminativity*.

3.1. Preverbs as contributing a pre-functional level

For Filip (2000, 2005, 2008), who is strongly inspired by the quantization model of Krifka, preverbs are not direct markers of telicity; telicity is, rather, epiphenomenal. (Filip 2000) observes that some preverbs, particularly the *na-* and *po-* superlexicals, pose a “quantization puzzle” in the sense that they do not give rise to quantized readings. (Filip 2005, 2008) wants to preserve the insight that preverbs are lexical operators which merely add additional content (space, manner, etc.) for the calculation of telicity *cum* quantization based on the presence of the *MAXE* operator and a scalar structure. The *MAXE* operator is “a monadic operator, such that $MAXE(\Sigma) \subset \Sigma$, which maps sets of partially ordered events Σ onto sets of maximal events $MAXE(\Sigma)$ ” (Filip 2008: 219). The preverb merely “adds meaning components that contribute to specifying a criterion for the ordering of events in their denotation. In this way, prefixes contribute to licensing the application of *MAXE*.” (Filip 2008: 244) What this implies is that preverbs express the maximality of the eventuality of a process verb, but they do not do so directly; rather, they specify the mode of execution of that maximality, which can differ according to the preverb used. Filip emphasizes the fact that “the *MAXE* operator contributes to the expression of directed path structures in space and time, cardinality, measure, etc., i.e., components that have independently been uniformly represented by means of scales”. (2008: 245) The hypothesis that preverbs are “scale-inducing expressions” is supported by the fact that many imp base lexemes have several pf partners, as shown in the following pair of sentences:

(9)

a- *Gde moj zelěnyj sviter ? Ja xocu idti v něm v magazin.*

“Where’s my green sweater? I want to wear it to go to the store.”

On ešče mokryj, ja ego po-stira-l. (#vy-stira-l)
 3SG still wet 1SG 3SG.ACC **po**-wash.PFV-PST.3SG (**vy**-wash.PFV-PST.3SG)

“It is still wet, I washed it.”

b- *On vy-stira-l pidžak i brjuki (...) a kogda vsě vy-sox-l-o,*
 3SG **vy**-wash.PFV-PST.3SG jacket and pants... and when all **vy**-dry.PFV-PST-3.N,

pro-gladi-l utjug-om. (#po-stira-l)
pro-iron.PFV-PST.3SG iron-INS **po**-wash.PFV-PST.3SG)

“He washed his jacket and pants (...), and when everything had dried off, ironed all of these.”

<http://www.ruscorpora.ru/search-main.html#>

[Example from Svestinskaja 1995:172]

In (9a), what matters in the discourse context is that the sweater is wet, rather than its having undergone a whole process leading up to it being clean; for that reason, *vy-* would be infelicitous because it would imply a maximal degree of change on the “dirty → clean” scale. *Vy-* is felicitous in (b) for opposite reasons: the context makes it clear that what is at stake is to reach an ideal state of cleanliness for the dirty object, and *po-* cannot express that. Still, pf verbs with *po-*, such as *postiral* in (9), test as telic (see the discussion below).

A more serious argument in favor of Filip’s model comes from the behavior of *po-* delimiting verbs, which generally test as atelic although they are pf. They stubbornly resist the *za-* test (the *in x-time* frame adverbial test), and are compatible with durative adverbials:

- (10)
*Petja po-čita-l knig-u polčasa /*za polčasa*
 Petia **po**-read.PFV-PST.3SG book-ACC for half-an-hour / in half-an-hour

“Petia read (from) the book for half an hour / *in half an hour.”

Po- indicates that the predicates’ natural (lexical) terminus is not accessible. (Flier 1985) referred to these verbs as “consummations”; Kučera (1983) dubbed them “atelic events”.

A last piece of evidence brought by Filip to confirm the lexical (pre-functional) status of preverbs is the fact that they are retained in secondary imperfectivization (cf. example 4). Instead, one may say that the secondary imp suffix (*-iva/-yva*) *undoes* the telicity of the preverb in the pf verb. This is the path taken by Borer and Lakorczyk, to be discussed in section 5.

Filip is certainly correct to defend the hypothesis that preverbs are all lexical, that is, derivational. Russian does not possess a single meaningless prefix dedicated to marking telicity in the functional structure projected by the verb. On the other hand, one may ask: why should that be necessary? Typological studies on the grammaticalization of tense and aspect markers (e.g., Bybee, Perkins & Pagliuca 1994) have established that whenever lexical elements change their function from lexical to grammatical, they retain some of their initial lexical content, which becomes more abstract. Such diachronic change accounts for cross-linguistic variation in the expression of notions such as perfectivity. Many scholars have noted that a Russian prefixed pf verb does not have the same grammatical function as a perfective (i.e., simple past) English verb: while the former always denote the attainment of a limit, the latter simply express closure of the event. We noted that in examples (1b) and (2) above, the prefixed pf *s’ela buterbrod*, “ate a sandwich” in (1b) indicates that the event of eating the sandwich attained its completion point, it is a case of telicity *cum* quantization: the total consumption of the entity affected ensures that all of the event is over. Not so in (2), where the imp verb has retrospective meaning only: the sentence is uncommitted as to the actual completion of the events, and the imp verb is used. In both cases, English has to use the simple past, which shows that it is not construed in the same way.

In conclusion, there is no contradiction in the fact that lexical material such as prepositional-like elements that grammaticalize may keep some of their lexical content (here, attainment of a completion point) while at the same time taking on a grammatical function (marking telicity). Filip’s model is also partly falsified by the fact that Russian seems to be developing a default perfectivizer: *po* (section 4).

3.2. What is telicity?

(Padučeva & Pentus 2008: 200) note that the predicate in (14) is not cumulative: “if one goes on drinking, then one would, possibly, drink much water”. It is not quantized either: “for some preceding interval *drink some water* is also true, because the predicate has the subinterval property”. Rather, I propose that the event is divisive: a part of ‘*he drank a little water*’ ≠ ‘*he drank a little water*’, but “*he drank very little water*”). The event is therefore telic because at some point it became non homogeneous. This example shows that the preverb is the exponent of terminativity, not necessarily telicity understood as strict quantization.

These examples show that the *in x time* adverbial test is epiphenomenal: it probes for telicity-as-finality. Other tests are needed. One test that does not only test finality and duration is the *cumulativity test* proposed by (Lakorczyk 2010: 63): it consists in coordinating two time adverbials with a given predicate. A predicate that yields either a one-event or a two-event interpretation is atelic, while a predicate that only yields a two-event interpretation is telic:

(15)

- a- Kim ate meat on Monday and Tuesday (one or two events)
- b- Kim ate 300 grams of meat on Monday and Tuesday (two events)
- c- Kim ate more than enough meat on Monday and Tuesday (two events)

[examples adapted from Lakorczyk 2010:63]

(15a) is ambiguous: the sentence is felicitous if it describes either two episodes of eating meat distributed over two days, or two distinct episodes of eating meat (on each day). But for (b) and (c), only the latter interpretation obtains: (b) cannot mean that part of the 300 grams of meat gets eaten on Monday, and the other part on Tuesday; likewise, (c) does not entail that he ate enough meat on Monday and more than enough on Tuesday. Sentences (b) and (c) force us to understand that *two distinct episodes* of eating the specified quantity of meat occurred.

For Russian, this test shows that imp verbs systematically test as atelic. More importantly, it helps establish the fact that most pf procedurals (the “superlexicals”) are also telic (*contra* Filip). For example, a *za*-verb, which is ingressive (“start doing something”) tests as telic although it focuses only the beginning point of the event and lacks duration. Filip’s quantization puzzle disappears; *na*- verbs are in fact also telic, as well as some *po*- verbs:

(16)

- a- *kuri-l* *v ponedel’nik i vo vtornik* (1 or 2 events)
3SG smoke.IPFV-PST.3SG on Monday and on Tuesday

“He smoked on Monday and on Tuesday”

- b- *On za-kuri-l* *v ponedel’nik i vo vtornik* (2 events)
3SG *za*-smoke.PFV-PST.3SG on Monday and on Tuesday

“He lit up a cigarette on Monday and on Tuesday.”

- c- *On po-kuri-l* *v ponedel’nik i vo vtornik* (2 events)
3SG *po*-smoke.PFV-PST.3SG on Monday and on Tuesday

“He smoked a bit on Monday and on Tuesday.”

Only (16a), with the imp verb, can mean that the smoking episodes can extend randomly over both days. The pf verbs all imply that there were distinct episodes of smoking. Even (c), with *po*- delim, lexically encodes “the semantics of the end” in its meaning (Padučeva &

Pentus 2008: 209): “*On pokuril*” means “*he smoked for a while and then stopped*”: it gives rise to two events. In the examples above, only the imp verb, which is both cumulative and divisive, is truly atelic.

This “relaxed” notion of telicity is discussed in the Slavic literature. Padučeva & Pentus (2008:193) observe that in English the verb form does not express terminativity, whereas in Russian it normally does, strongly so, even sometimes beyond finality, denoting a post-state:

(17)

a- *Vanja pro-snu-l-sja* *vsego za 5 minut*
 Vanja **pro**-wake.up.PFV-PST.3SG-REFL only in 5 minutes

“Vania woke up in only 5 minutes.”

b- *V 9 časov Vanja uže pro-snu-l-sja*
 at 9 a.m. Vanja already **pro**-wake.up.PFV-PST.3SG-REFL

“At 9 o’clock Vania was / had already woken up.”

The pf verb in (17b) is felicitous if the post-state holds after 9. A Russian pf is often truth-conditionally equivalent to an English resultative perfect. Such post-state telicity may be enforced by the semantics of a given prefix.

It seems, therefore, that the concept of terminativity is more appropriate to describing the semantics of Russian prefixed pf verbs. As Padučeva & Pentus (2008) and Mehlig (2008) note, all prefixed pf verbs have the “semantics of the end lexically encoded in their meaning” (*ibid.*). Crucially, however, terminativity need not cover the whole interval; it is not synonymous with quantized. The difference it allows between “absolute-terminative and relative-terminative predications” (Mehlig 2008: 258) is best observed by comparing different pf verbs for one single imp root. Let us consider example (9), repeated in (18).

(18)

Ja po-stira-l sviter v ponedel’nik i vo vtornik. (2 events)
 1SG **po**-wash.PFV-PST.3SG sweater.ACC on Monday and on Tuesday

Although the sentence with *po-* is felt to be less resultative than it would be with the empty preverb *vy-*, it is nevertheless telic: (18) describes two distinct episodes of washing a sweater. It means that some washing was done on the sweater, without specification of the final state of cleanliness of the entity. As Jablonska (2004) says of *po-* in Polish: it “introduces an arbitrary Reference Time that seals off the event.” (367)

The preceding sections have shown that all preverbs, which morphologically perfectivize an imp root in Russian, can be considered as telic if the notion of telicity is revised so that finality as measured by the *in*-test is just one case among others. A more adequate notion is *terminativity* (Padučeva & Pentus, Mehlig 2008), understood as a functional operation whereby a preverb added to an atelic imp root encodes a semantics which includes the end of the event. This generalization is supported by the overwhelming empirical fact that adding a preverb in Russian automatically makes an imp root pf. This approach has the advantage of avoiding the three-fold distinction among preverbs that obscures the regularities observed, while preserving Filip’s insight that prefixation retains a strong lexical origin. I concur with Lakorczyk’s observation that “it might be that what Filip suggests characterized an older stage in the development of Slavic aspect, but the functional role of prefixes [in Russian] has since been grammaticalized to a degree that can no longer be denied” (83).

A question remains concerning *po-* delimitative verbs, which still test as atelic with respect to the *za-* test. However, as we have seen, *po* gives rise to several types of terminative events when accompanied by temporal adverbials. This will be illustrated in the next section.

4. Narrowing down telicity *cum* terminativity: the case of *po-* verbs

Many scholars have noted that the preverb *po-* is currently extending its use and might even become a generalized pf marker in Russian (Comrie 1976, Camus 1998, Šmelev & Zaliznjak 1997, Dickey 2006, Guiraud-Weber 1993, Lakorczyk 2010). As Lakorczyk (2010) writes, “Slavic languages seem to be settling on a default perfectivizer – i.e., one that is most frequently applied to new verbs” (73). This seems to indicate that the grammaticalisation of SA is becoming firmly entrenched in Russian.

Po- is the most polysemous prefix of all; it usually has the following senses:

(19)

a- Inchoation:

po-exa-t', *po-ljubi-t'*
po-go.PFV-INF **po**-love.PFV-INF
 “set off”, “fall in love”

b- distributive-cumulative:

po-ubi-va-l *by* *vsex!*
po-kill.PF-DISTR-PST.3SG COND all.ACC.PL
 ‘I’d kill them all one after the other!’

c- delimitative:

po-kolo-l *drova* *s polčasa i ušel,*
po-chop.PFV-PST.3SG wood.ACC.PL half-an-hour and left
 ‘He chopped at some wood for a half-hour and left’

d- attenuative/limitative:

kofe *po-osty-l*
 coffee.NOM **po**-cool.PF-PST.3SG
 ‘The coffee has cooled down a bit.’

e- resultative:

po-stroi-t' *dom,* *po-čini-t'* *časy*
po-build.PFV-INF house.ACC **po**-fix.PFV-INF watch. ACC
 ‘build a house’, ‘fix a watch’.

f- perfectivizing:

po-duma-t', *po-rabota-t'*, *po-veri-t'*, *po-čuvstvova-t'*,
po-think.PFV-INF, **po**-work.PFV-INF, **po**-believe.PFV-INF, **po**-feel.PFV-INF
 “think”, “work”, “believe”, “feel”.

The use that poses a problem for quantized accounts of telicity is delimitative *po-* (in c). It denotes limited duration for an atelic event and thus tests as atelic in the *za-* test, as we have seen. Recall, however, that the *za-* test probes for one case of telicity, the one that measures the attainment of the telos or inherent boundary. The *za-* test does not apply here, because the

event has no telos: *po-* indicates limited duration and thus has the effect of stripping the predicate's denotation of a telos.

If we want to preserve the overwhelming empirical generalization that all preverbs in Russian make an imp root pf, we want to preserve the insight that all preverbs impose a boundary on the event. At this point we will introduce some facts which modify the assertion generally made about *po-* delim verbs.

4.1. What *po-*delim verbs are not

Some of the claims made in the literature about the *po-* delim pf verbs are not verified.

4.1.1. Extension of functional scope

In Russian, “delimitative” *po-*verbs display a tendency to develop into real perfective partner verbs” (Šmelev & Zaliznjak 1997: 112). They are clearly extending their functional scope, and are not systematically atelic; some even test as telic with the *za-* frame adverbial test (Mehlig 1985):

(20)

a- *My po-krasi-l-i zabor časa dva i se-l-i zavtrakat'*
 1PL **po-**paint.PFV-PST-3PL fence.ACC hours two and sit.PFV-PST-3PL for-breakfast

“We painted (on) the fence for two hours and sat down to have breakfast.”

b- *My po-krasi-l-i zabor za dva časa.*
 1PL **po-**paint.PFV-PST-3PL fence.ACC in two hours

“We painted the fence in two hours.”

There's not a great distance between the delimitative in (20a), “painted on the fence” to a real resultative in (20b), “painted the fence”. Many verbs show this semantic variability.

4.1.2. *po-*delim verbs do not necessarily indicate short duration

Many authors have noted that in fact they express *indefinite duration*. (Isačenko 1960, Flier 1985, Dickey 2006). The short duration reading is usually inferred; it is easy to override the inference, as in the following example:

(21)

“*Skaž-ite, (...) vot ja id-u po ulice, po-kuri-l,*
 say-IMP.2PL here 1SG walk.IPFV-PRS.1SG down street **po-**smoke.PFV-PST.1SG

nado vy-kinu-t' okurok, a urny net ni odnoj.”
 necessary vy-throw.away-INF butt but trashcan not a single

“Tell me, here I am, walking down the street, I've just had a smoke, now I have to throw away the cigar butt and there's not a single trash can.”

In (21), we infer that the person smoked the whole cigar, because now he wants to throw away the stub and cannot find a trash can; the duration of the event would be the same if instead the natural perfective was used (*vykuril sigaretu*). This minimal pair shows that what

is at stake with *po-* is not lexical telicity (presence of the event's inherent culmination), but rather terminativity: *po-* indicates that an entire episode of smoking took place, regardless of the final state of the (often unexpressed) affected object or of the duration of the episode.

4.1.3. Lexical restrictions

Although the number of imp roots that derive a *po-* pf verb is very large, they are subject to *lexical restrictions* having to do with the presence or absence of scales in the semantics of the base verb. From that perspective, *po-* is no different from the other preverbs that are also subject to constraints. This suggests that there is no reason to exclude *po-* from the class of purely perfectivizing or meaning-modifying preverbs. Change of state verbs illustrate a restriction of the use of *vy-* vs. *po-* perfectives (Svetsinskaja 1995).

(22)

a- *vy-soxnu-t'*, / *vy-ras-ti*, / *vy-zre-t'*; / *vy-zdorove-t'*,
vy-dry.PFV-INF **vy**-grow.PFV-INF **vy**-mature.PFV-INF **vy**-cure.PFV-INF
 'dry' 'grow (up)' 'come to maturation' 'get cured'

**po-soxnu-t'* / **po-ras-ti* / **po-zre-t'* / **po-zdorove-t'*
po-dry.PFV-INF **po**-grow.PFV-INF **po**-mature.PFV-INF **po**-cure.PFV-INF

b- *vy-leči-t'* / *vy-suši-t'* / *vy-my-t'* / *vy-krasi-t'*, / *vy-bri-t'*,
vy-treat.PFV-INF **vy**-dry.PFV-INF **vy**-wash.PFV-INF **vy**-paint.PFV-INF **vy**-shave.PFV-INF
 'cure (a patient)' 'dry(off)' 'wash (clothes)' 'paint' "shave"

po-leči-t' / *po-suši-t'* / *po-my-t'* / *po-krasi-t'*, / *po-bri-t'*,
po-treat.PFV-INF **po**-dry.PFV-INF **po**-wash.PFV-INF **po**-paint.PFV-INF **po**-shave.PFV-INF
 'treat (a patient)' 'dry' 'wash (clothes)' 'paint' "shave"

[examples from Svetsinskaja 1995: 170]

c- *po-xud-et'* / *po-stare-t'*,
po-get.lean.PFV-INF **po**-get.old.PFV-INF
 "lose weight", "get old".

**vy-xud-et'* / **vy-stare-t'*,
vy-get.lean.PFV-INF **vy**-get.old.PFV-INF
 "lose weight", "get old".

The intransitive change of state verbs in (22a) do not accept *po-* verbs, because they denote an absolute change of state; *vy-* is a good candidate for these verbs precisely because it indicates that the undergoer (patient, theme) ends up in the state that corresponds to an ideal (abstract) model of what the bare root means: "completely dry, grown, ripe, healthy". *Po-* is possible, however, with the transitive change-of-state verbs in (22b): these roots denote a non-necessary final state; *po-* is appropriate because it indicates a less than complete degree on the scale of treatment / drying / painting / washing, etc. Moreover, the degree achievements in (22c), which do not encode a final point, accept only a *po-* pf partner.

4.2. What *po-* delim verbs are.

Our discussion leads to the conclusion that *po-* delim verbs are a special case of terminative (telic) verbs. The type of bound they impose on the event is not an inherent one (the bound that the natural telos of the predicate entails), but an external type of bound. As has often been noted, *po-* imposes temporal definiteness. For Flier (1985), a *po-* verb denotes relative change: it takes as input a homogeneous event (an atelic activity) and delimits it on the temporal axis. According to Mehlig (2006), the role of *po-* verbs in aterminatives is to provide “external bounding” by focusing on a certain quantity of the homogeneous temporal continuum, that is, a limited period of its duration, so that the output is “arbitrary boundedness” of the event (262). For Sémon (1986), as well, contrary to other prefixed pf verbs, *po-* verbs do not describe the endpoint of action, but the amount of process that the speaker judges “congruent” (sufficient) in a given stretch of discourse. Finally, for (Dickey 2006), *po-* verbs identify a situation as unique in a sequence or a set of events. It is the reason why such verbs pass the temporal adverbial test of telicity proposed above.

Although full discussion of *po-*verbs would take us too far afield, there is a growing consensus that the language is changing, with *po-*delim verbs being often indistinguishable from normal *po-* pf verbs. In many cases, they perform the same function as a pure perfectivizer by placing the events in a narrative succession of non-overlapping situations; then they co-occur naturally with purely perfectivizing prefixed verbs:

(23)

Eto ved' tuda-sjuda-obratno, po-e-l, po-čita-l
 this is here-there-back, **po**-eat.PFV-PST.3SG, **po**-read.PFV-PST.3SG

i u-pa-l lico-m v podušku.
 and **u**-fall.down.PFV-PST.3SG face-INS in pillow-ACC

“He was like, moving about here and there all the time, he ate first, read a bit, and fell crashing head first into the pillow.”

[Russian National Corpus]

Dickey notes the important grammatical function of the preverb *po-* in the aspectual system of Russian; it allows “the extension of the aspect opposition to atelic activity predicates ... [it] allow[s] activity predicates to be sequenced in time on a par with telic predicates” (2006: 16). Without *po-*, the aspect opposition would “be restricted to accomplishment and achievement predicates”, much as in Czech and Bulgarian, where aspect is more lexical (cf. Lakorczyk, (2010). In sentence (23), the sequencing of the events in time invalidates the use of bare imp verbs; the pure perfectives (*s'el*, *pročital*) are not possible either because they would require the presence of a completely affected argument, which is not available. *Po-* thus fills an important grammatical role, akin to that played by lexical telicity with empty preverbs: the *po-*verb indicates “contingent” telicity, which we express by the general term of *terminativity*. For accomplishment and achievement predicates, terminativity translates into lexical telicity (attainment of the final point), whereas for activities and some state predicates, terminativity means contingent telicity, i.e. what Dickey calls the expression of “tangential consequences” for the event, as opposed to its natural consequence as expressed by the pure preverb in conjunction with a bare imp root.

As it is sometimes very difficult to draw the line between a *po-*delim and a normal *po-*pf partner verb, a careful corpus search would be necessary. In the following example, drawn from Dickey (2006), the *po-*delim verb takes an accusative object, i.e. a “single referential object”, a construal which is normally possible only with pure perfectivizers.

(24)

Ja po-ši-l vsě, kak nado: štaniki, pidžačok, a soročečku iz nosovogo platka.
 1SG **po**-sew.PFV-PST.1SG all as necessary

“I sewed everything like it should be: little pants, a little jacket, and a little night shirt out of a handkerchief.”

[example from Dickey 2006: 24]

These facts lead Dickey to define an aspectual pair as “not a function of a dictionary, but a condition of mutual activation linking two verbs of opposing aspects at a given stage in the development of a discourse”. (*ibid.*:33)

In this section I have examined the puzzle posed by *po*-delim verbs, which often test as atelic in the *za*- frame adverbial test, yet yield positive results in other telicity tests, such as the time adverbial test. The former test probes for mereological telicity, that which covers the whole interval, including the beginning point and focusing on the endpoint: this explains why a sentence like *on počital knigu čas*, “he *po*-read the book for an hour”, is possible. *Po*- picks an arbitrary temporal interval in the event and simply seals it off, which a specialized preverb (*pro*- in *pročital knigu*, “read the book through”) does not do, as it fixes the natural bound for the event, by definition. The latter test (the time-adverbial test) probes for a relaxed notion of telicity, that which I call terminativity, which simply measures the end of an event: on that count, *on počital knigu* means “He read the book for a while and then he stopped reading.” Following a number of authors, I also noted that the language is changing and that *po*-delim perfectives often behave as normal perfective telic partners of imp bare verbs, except for the attainment of the inherent culmination. I therefore proposed a more general definition of telicity for Russian, which I call *terminativity*, similar to the concept developed by Padučeva & Pentus, and Mehlig (2008). The advantage of this revised conception of telicity is that it provides a single function for all the preverbs, avoiding postulating a special case for *po*-delimitatives, and *na*-cumulatives. It gives more flesh to the concept of perfectivity which, as will be demonstrated below, need not be ascribed to the expression of viewpoint aspect.

This will be the topic of the last section: if *po*-delim perfectives induce terminativity, wouldn't it be better to assume that alongside the telicizing role of preverbs, one must assign them another function, that of marking *viewpoint aspect*? And what is left of the preverb when the operation of secondary imperfectivization (SI) occurs? I turn to these topics in the concluding section.

5. Are preverbs telicizers or perfectivizers?

According to Smith (1991), viewpoint aspect (outer aspect) establishes a relation between the assertion time (AT) and the event time (ET). If ET is included in AT, there is an external view of the situation seen as a whole, whatever its actual length; the situation is temporally bounded, producing the perfective viewpoint (PfV). If, on the other hand, AT is included in ET, there is an internal view of the situation; the situation is temporally unbounded, deriving the imperfective viewpoint (ImpV). VA aspect then composes with SA to yield different aspectual construals of situations: for atelic situations (Activities and States), application of the PfV yields events that merely terminate:

(25)

John read books → #*John finished reading books; John stopped reading books.*

For Accomplishments and Achievements, application of the same operator gives events that culminate:

(26)
John read the book → *John finished reading the book*

Lakorczyk (2010) uses a time adverbial test to avoid confusing atelicity and imperfectivity; only events with the PfV “can have an inclusive reading with respect to a time interval, i.e. they do not need to fill the whole time interval” (55), while events with ImpV can only have a durative reading:

(27)
Between 2 and 3, John read a book (durative or inclusive)
Between 2 and 3, John was reading a book (only durative)

In Russian, as already noted in the introduction, an imp verb normally produces an unbounded (view from within) interpretation (Klein 1995):

(28)
Ivan čita-l knig-u (kogda my vo-š-l-i v komnat-u)
Ivan read.IPFV-PST.3SG book-ACC (when 1PL vo-go.PFV-PST-1PL in room-ACC)

“Ivan was reading a book when we entered the room.”

Crucially, however it does not necessarily derive an ImpV reading, even in the presence of a temporal adverbial:

(29)
“*Čto ty dela-l včera c dvux do trëx.?*”
What.ACC 2SG do.IPVF-PST.2SG yesterday from 2 to 3

“*Čita-l knig-u, smotre-l televizor...*”
read.IPFV-PST.1SG book-ACC, watch.IPFV-PST.1SG television.ACC

“What did you do yesterday from 2 to 3?
“I read a book, watched TV.”

The normal way of asking about one’s past (and bounded) activities is by using the imp verb, as in (29). This shows that the imp verb does not necessarily encode the ImpV. The verbs in (29) are most naturally translated as simple pasts in English, indicating that both bounds of the event are included in the assertion time. However, a pf verb always denotes a closed interpretation, i.e. it invariably produces the PfV. A useful test is to add the adverb *uže*, “already”, to an imp or a pf verb, as in (30a-c).

(30)
a- “*Vot, ot-stuč-is’ sejčas, Raisa Vasil’evna, prikaz.*”
well, ot-type.PFV.FUT-2SG now R. V. order .ACC

On uže side-l i pisa-l.
3SG already sit.IPFV-PST.3SG and write.IPFV-PST.3SG

“Well now, you’ll have to type the order, Raisa Vasilievna.” He was already sitting and writing.

b- *Kažetsja, ja uže pisal, čto on ne otliča-l-sja*
 it-seems 1SG already write.IPFV-PST.3SG that 3SG NEG distinguish.IPFV-PST-REFL.3SG

osoboj ljubeznost’ju.
 special .INS affability.INS

“It seems I’ve already written that he did not appear as particularly affable.”

c- *Nu, a ja tol’ko mogu povtori-t’ to, čto uže na-pisa-l.*
 well, and 1SG only can.PRS repeat.PFV-INF that which already na-write.PFV-PST.1SG

“Well, I can only repeat what I’ve already written.”

In (30a-b), the combination of *uže* and the imp verb *pisal* is ambiguous between an ImpV (*was already writing*) and a PfV (*have already written*). However, (30c), with the prefixed pf verb *napisal*, has only a completive sense (*have already written*); it illustrates the PfV.

Clearly, it would be incorrect to assign the PfV aspect function to the preverb (e.g., *na-* in *napisal*), since the imp verb expresses the PfV just as well. I thus arrive at the same conclusion as Lakorczyk (2010): “Viewpoint aspect in languages such as Polish and Russian is marked by zero morphology.”(90). VA is expressed in Russian by means of correlations or compositional restrictions such as the following:

<u>Morphology of verb:</u>	<u>Situation type:</u>	<u>Viewpoint type:</u>
Base imp verb	→ atelic	→ perfective or imperfective viewpoint.
Preverb + base imp verb	→ telic	→ perfective viewpoint.

In Russian, a base imp verb denotes an atelic eventuality which receives either a PfV or an ImpV reading. The addition of a preverb to the base imp verb makes it terminative/telic, deriving a PfV reading. We conclude that the preverb has a telicizing/terminative function. Therefore, it is SA that is grammaticized in Russian, not VA.

I will conclude this study with two arguments, which also apply to Polish (Lakorczyk 2010), to show that preverbs do not have a viewpoint aspect function (i.e., are not perfectivizers):

- 1) preverbs are found in forms that do not have to have PfV interpretation, namely, secondary imperfective (SI) forms;
- 2) preverbs do not have a VA interpretation at all in non-finite forms (nominals), where no temporality can be retrieved.

5.1. Secondary imperfectivization (SI) and preverbs.

SI is a regular morphological process whereby a prefixed pf verb derives its imp partner via *a/-iva/-yva* suffixation (or exceptionally, suppletion). Examples (3) and (4) are repeated as (31), with the SI formations added:

(31)

base imp verb: *bit’*, ‘beat, hit’.

a- prefixed perfectives: *u-bit’ (čeloveka)*, ‘kill (a man)’; *raz-bit’ (stakan)*, ‘break (a glass)’; *po-bit’ (sobaku)*, ‘beat a dog’; *pro-bit’ (dorogu)*, ‘open up (road)’; *za-bit’ (trevogu)*, ‘raise (the alarm)’

b- secondary imperfectives: (4) *u-bi-va-t; raz-bi-vat'; po-bi-vat'; pro-bi-vat'...*
u-STEM-2.IPFV-INF

Filip (2005, 2008) used SI as an argument for denying a telicizing function to the preverb, since the preverb remains in SI formations. The question is to determine the grammatical function of SI. The regular and inflectional-like nature of this process has led many authors (e.g., Zucchi 1999) to analyse it as a progressive operator, taking as input a culminated event (e.g., *ubit'*) and yielding an imperfective event (*ubivat'*), much like the progressive in English. The problem for that account is that a SI verb behaves exactly like a bare imp verb: it can denote either a progressive (32a) or a bounded event, as in (32b):

(32)

a- *Kogda ja pri-së-l, oni za-kaz-yva-l-i bljuda.*
 When 1SG pri-go.PFV-PST.1SGarrived 3PL **za**-order-2.IPF-PST-3PL dishes.ACC

“When I arrived, they were ordering the food.”

b- *Kak nazывaetsja eta ryba? – sprosil Kostia u Vari*

- *Vy ved' za-kaz-yva-l-i karp-a, - otvetila Varja, - on i est', po-vidimomu.*
 2PL well **za**-order.2.IPFV-PST-3PL carp-ACC

“What’s the name of that fish?” – Kosti asked Varia.

“Well, you ordered a carp, didn’t you? – answered Varia. “That’s what it is, obviously.”

(32b) illustrates a very frequent use of imp verbs in conversations, in which the addressee is reminded by the speaker of a fact that she should have been aware of; (Forsyth, 1970) calls it the “statement of fact” convention; the SI suffix *-yva* is not a marker of ImpV. Rather it behaves like any other bare imperfective and can be temporally unbounded as well as bounded. I thus concur with Lakorcyk (2010) in analyzing the SI suffix as an atelicizer, which simply undoes the telicity of the preverb, but crucially not as a progressive (ImpV) operator.

Further confirmation of this function comes from the behavior of nominals.

5.2. Nominals

Deverbal nominals in Russian take an *-e/-ë/-ie* suffix, added to a verb stem regardless of its aspect and voice.

(33)

a- *voz-vrat-it'-sja* > *voz-vrašče-nie*
voz-turn.PFV-INF-REFL **voz**-turn-NMLZ
 “to come back” “return”

b- *stoi-t'* > *stroe-nie*
 build.IPFV-INF > build-NMLZ >
 “to build” “construction”

c- *na-pisa-t'* > *na-pisa-nie*
na-write.PFV-INF > **na**-write-NMLZ
 “to write” “writing, inscription”

d- *rva-t'* > *rva-n'ë*
 tear.IPFV-INF > tear-NMLZ
 “to tear” “torn clothes”

The verb is pf and reflexive (with the suffix *-sja*) in (a), bare imp in (b), prefixed pf in (c), and bare imp in (d). Semantically, the deverbal nominal denotes a result in (a), a process in (c), a process or a result in (b), and more idiosyncratically, an entity in (d). The fact that an eventive nominal formed from an imp (33 b, d) as well as a pf (a, c) verb, is compatible with an imperfective construal, e.g. with the preposition *pri*, “during”, as in (34 a-d), suggests that the eventive nominal simply lacks VA:

(34)

a- *pri po-stro-eni-i model-i*
 pri **po**-build-NMLZ-DAT model-GEN
 “during the construction of the model”

b- *pri na-pisa-ni-i roman-a*
 pri **na**-write-NMLZ-DAT novel-GEN
 “during the writing of the novel”

c- *Eto očēn' meša-et mne pri pisa-ni-i*
 it.N much disturb-PRS.3SG me.DAT pri write-NMLZ-DAT
 “It disturbs me a lot during my writing.”

d- *Pri pisa-ni-i nov-yx glav on ponja-l... ,*
 pri write-NMLZ-DAT new-GEN.PL chapter.GEN.PL 3SG understand.PFV-PST.3SG

“During the writing of new chapters he understood...”

The choice between the pf or the imp base for deriving the nominal seems to depend on the absence *vs.* presence of an object, and/or the nature of the direct object (single referential object *vs.* generalized object). (34a) and (b) have a singular delimited (referential) object which requires a perfective base; (34c) and (d) create contexts which require the use of the imp base: there is no object in (c) - the activity of writing is focussed – while (d) has a plural object. Such facts suggest that it is not VA but SA that dictates the choice of the base form of a derived nominal, including presence/absence of a bound and focus on the process or the result.

This observation is confirmed by the interpretation of the nominalizations of SI verbs: these always denote atelic processes, never results, and do not introduce any temporal effects which would suggest a progressive VA interpretation:

(35)

za-pis-yva-nie zvuk-ov na plastink-e
za-write-2.IPFV-NMLZ sound-GEN.PL on record.LOC.SG
 “the registration of sounds on a record”

po-kaz-yva-nie kartin-ok
po-show-2.IPFV-NMLZ painting-GEN.PL
 “the showing/display of paintings.”

The data shown here indicate that SA alone is grammaticalized in Russian, and that the contribution of the preverb is limited to its *Aktionsart* function of marking telicity/terminativity. The role of SI is to undo the telicity inherent in the preverb + bare imp base.

CONCLUSION:

This paper has presented the complex data of verbal prefixation in Russian, and has assessed its role in the marking of situation and viewpoint aspect. It has defended the view that telicity is a robust functional feature which finds its grammatical exponent in the pure perfective preverbs. This view, defended by Borer (2005), and Lakorczyk (2010) for Polish, is based on the generalization that a preverb invariably makes an imp atelic root telic. Concurrent models were examined, e.g. that of Filip (2005, 2008), which seeks to retain the strong lexical (derivational) nature of the preverbs and deprives the preverb of a generalized telicizing function, preserving the classification into three types of preverbs. Instead, it was shown that there was a large overlap in the properties of the purely perfectivizing, the meaning-modifying and the superlexical preverbs: all yield telic readings, with the possible exception of *po*-delim pf verbs. It was further noted that even if the purely perfectivizing preverbs have grammaticalized to a large extent, they still retain part of their lexical substance and have not been replaced by a single empty prefix to do the job, confirming typological studies on the grammaticization of tense and aspect markers (Bybee, Perkins & Pagliuca 1994). It was also observed that both the superlexicals and the purely perfectivizing are subject to lexical constraints, just like the meaning-modifying preverbs.

In turn, the behavior of the superlexicals forced us to relax the exclusive definition of telicity found in the literature, *viz.* telicity as quantization. It was suggested that non-homogeneity or non-divisiveness alone can support a telic reading. Following the model of Borer (2005), I endeavored to show that final telicity is just one case of telicity, with many other preverbs in Russian (*na-*, *po-*) encoding either non divisiveness or “post-state” telicity. Then, the behavior of *po*-delim verbs, which are currently extending their functional use in Russian, provided a further argument in favor of the relaxed view of telicity advocated above: even if *po*-delim verbs do not encode lexical telicity (i.e., presence of an inherent culmination in the verb’s denotation), they mark terminativity, i.e. they encode a semantics of the end, which I called *terminativity*, following Paduceva & Pentus (2008), and Mehlig (2008).

Finally, the data about *po*-delim verbs raised the question of the expression of viewpoint aspect: it was shown that both bare impf and secondary imp verbs, can give rise to an imperfective as well as a perfective viewpoint interpretation; however, pf verbs only yield a perfective viewpoint interpretation. With the observation that eventive nominals, derived from a pf or an imp verb, are deprived of any viewpoint construal, we were comforted in the conclusion already arrived at by Kiss (2006) for Hungarian, that it is situation aspect, not viewpoint aspect, that is grammaticized in Russian. The latter is merely inferred compositionally.

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