

Aspectual Pairs, Goal Orientation and *PO*- Delimitatives in Russian¹

0. Introduction

Anyone with more than a superficial familiarity with the Russian verbal system knows that Russian aspectology has traditionally divided perfective (pf) verbs into three kinds (cf., e.g., Maslov 1948): (1) **telic prefixed pf verbs** paired with morphologically simplex imperfective (impf) correlates (e.g., *pročitat^{pf}* ‘read’, paired with *čitat^{impf}* ‘read’²); (2) **procedural pf verbs** that profile some portion of the development of a situation with respect to time and/or intensity (e.g., *počitat^{pf}* ‘read for a while’, *začitat^{pf}/sja^{pf}* ‘become engrossed in reading’); (3) **independent lexical pf verbs** (e.g., *perečitat^{pf}* ‘reread’ paired with *perečityvat^{impf}*). This taxonomy has served as the basis for distinguishing **paired pf verbs**, i.e., verbs that have a morphologically related yet lexically identical correlate of the impf aspect (thus, *pročitat^{pf}* and *čitat^{impf}* are considered by many to be forms of the same word) from **unpaired pf verbs**. The status of being aspectually paired (hereafter **pairhood**) has generally been recognized only for types (1) and (3). An important issue in this respect has been which pf verbs are paired with impf simplex verbs such as *čitat^{impf}* ‘read’ or *stroit^{impf}* ‘build’; only pf verbs of type (1), telic prefixed pf verbs, are generally considered to enter into aspectual pairhood relationships with their simplex impf correlates (i.e., only verbs of type [1] are considered to be lexically identical to their simplex impf “partners”). Those of type (2), pf procedural verbs, are associated both morphologically and lexically with their impf correlates, but are not considered to be their pf partners. For example, neither *počitat^{pf}* ‘read for a while’ nor *začitat^{pf}/sja^{pf}* ‘become

¹ I would like to thank Olena Chervonik-Bearden for providing some of the informant data contained here. As usual, this article has benefited greatly from consultations with Alina Israeli, for which I am grateful. This is not meant to imply that she necessarily endorses the analysis presented here. Naturally, I alone am responsible for any inaccuracies or errors.

² Impf and pf Russian verbs are labeled with the superscripts ⁱ ‘imperfective’ and ^p ‘perfective’ respectively.

engrossed in reading’ is viewed as the “pf partner” of *čitatⁿ* ‘read’. Those of type (3), independent lexical pf verbs, are not viewed as being aspectually paired with their impf simplex source verbs (i.e., *perečitat^{pf}* ‘reread’ is not the pf partner of *čitatⁿ*); rather, they are aspectually paired with their derived impf correlates. For example, *perečitat^{pf}* ‘reread’ is the pf partner of the derived impf *perečityvatⁿ* ‘reread’. This traditional organization of the aspectual/procedural/lexical relationships between impf simplex verbs and prefixed pf verbs dichotomizes them, without further ado, into paired and unpaired verbs, i.e., into aspectually paired verbs (e.g., *čitatⁿ*—*pročitat^{pf}* ‘read’, *perečitat^{pf}*—*perečityvatⁿ* ‘reread’) vs. *perfectiva tantum* (e.g., *posidet^{pf}* ‘sit for a while’) and *imperfectiva tantum* (e.g., *znatⁿ* ‘know’, which is not paired with *uznat^{pf}* ‘find out’). This information is summarized in the following figure, in which the double-lined arrow \Rightarrow indicates pairhood in addition to the path of derivation (these examples are underlined), as opposed to the single arrow \rightarrow , which only indicates the path of derivation:

(1) simplex impf		prefixed pf		derived impf
<u><i>čitat'</i></u>	\Rightarrow	<u><i>pročitat'</i></u>	—	
<i>čitat'</i>	\rightarrow	<i>počitat'</i>	—	
<i>čitat'</i>	\rightarrow	<u><i>perečitat'</i></u>	\Rightarrow	<u><i>perečityvat'</i></u>
<i>znat'</i>	\rightarrow	<u><i>uznat</i></u>	\Rightarrow	<u><i>uznavat'</i></u>

This paper reconsiders the overall issue of aspectual pairhood in Russian from a cognitive linguistic perspective, and in particular it reexamines the status of one kind of procedural verb, pf delimitative verbs prefixed with *po-*, e.g., *posidet^{pf}* ‘sit for a while’, in respect to aspectual pairhood, and ultimately argues against the traditional view that *po-*delimitatives do not qualify as paired pf verbs. This position is compatible with Janda’s (forthcoming) version of a network approach to Russian aspectual derivation. Section one presents the basic facts of Russian *po-* delimitatives; section two suggests a cognitive motivation for the traditional view/intuition that telic pf verbs are paired whereas *po-*delimitatives are not; section three presents a cognitive view of aspectual pairhood itself; section four presents arguments for viewing *po-* delimitatives as paired verbs based on some particular kinds of usage of these verbs; section five considers additional questions

related to the hypothesis; section six presents some concluding remarks.

1. *PO*-Delimitatives in Russian: The Basic Facts

PO-delimitatives are atelic pf verbs that express the continuation of a situation for a certain (often relatively short) duration, e.g., *posidet^{pf} s minutu* ‘sit for about a minute’. However, the emphasis on the nuance of the relative brevity of the situation in some descriptions (cf., e.g., Avilova 1976: 284) is erroneous, as Isačenko (1962: 391) has pointed out. Flier (1985: 50) observes that what *po*-delimitatives really express is the indefinite duration of a situation, a view which is supported by the fact that *po*-delimitatives need not have a temporal adverbial, and in fact most often occur without any temporal adverbial at all, as in (2):

(2) Gazetu vzjal, **počital** i brosil.

‘He took the newspaper, read it for a while and put it down.’

In (2) the situation is simply located between other situations in a sequence of events; nothing is explicitly asserted concerning the duration of the situation.³

The status of *po*-delimitatives in the aspectual system of Russian has in fact been the subject of some debate. This is due in part to the fact that *po*- is the most productive perfectivizing prefix in Russian (cf. Čertkova [1996]), and, as Avilova (1976: 204–6) observes, the purely perfectivizing function of *po*- is often difficult to distinguish from its procedural meanings (delimitative, attenuative, etc.). Though the atelic status of *po*-delimitatives seems to disqualify them as pf partner verbs in the eyes of most Russian linguists, e.g., Maslov (1948), Zaliznjak and Šmelev (2000), a few native treatments (cf., e.g., Čertkova [1996] and Petrušina [2000: 190]) do seriously consider the idea of *po*-

³ I would argue that the frequent nuance of short duration is simply an implicature that arises due to the fact that in addition to a *po*-delimitative, e.g., *popisat^{pf}* ‘write for a while’, there is often a telic pf partner verb available to express a given situation, e.g., *napisat^{pf}* ‘write to completion’: if the telic pf is not appropriate in the context, then the situation can only continue for some time *less* than the time required to complete the action, and so the situation is naturally viewed as being of a *relatively* short duration. Moreover, the foregrounding effect of the pf requires that the profiled situation be smaller than the background (temporal base); this certainly facilitates the implicature of short duration in the case of atelic verbs whose temporal profile is indefinite to begin with. Of course, in a cognitive account such a conventionalized implicature is clearly entrenched as a node in the network of delimitative *po*-. However, even in this respect we should consider short duration a subordinate node derivative from a prototype (or schema) of indefinite duration.

delimitatives as pf “partners” of their impf simplex correlates.⁴ In my view, it is important to point out that one’s views on which verbs are paired is largely determined by one’s views on the nature of the meaning of the pf aspect, so that as Holden (1990: 134) observes, a definition of the pf such as completion (or its theoretical counterpart, terminativity) “is then used to exclude *a priori* other aspectualities from the general binary oppositional system (such as delimitatives prefixed in *po-*)” (original emphasis). Holden’s remark could be taken to advocate any number of ideas regarding aspectual pairhood, but it is interesting that the one kind of procedural verb that he mentions are *po-* delimitatives.

Mehlig (forthcoming), who basically takes the traditional view of aspectual pairs, develops this approach considerably, by distinguishing between heterogeneous and homogeneous construals of predicates. For any potentially telic imperfective predicate, Mehlig distinguishes a heterogeneous construal (in which the initial and final states involved in the situation are not identical) from a homogeneous construal (in which the same “material” situation is viewed as an open-ended process consisting of identical subparts).⁵ For example, in the case of WRITE, Mehlig distinguishes between telic *pisat'*₁ and atelic *pisat'*₂; these two distinct predicates are correlated with different pf verbs:

- (3) *pisat'*₁ ‘write [heterogeneous > telic]’ → *napisat'*^{pf} [telic pf “partner”]
*pisat'*₂ ‘write [homogeneous > atelic]’ → *popisat'*^{pf} [atelic pf delimitative]

The neutral pf correlate of *pisati'*₁ is the telic pf “partner” *napisat'*^{pf}. But *pisat'*₂ is in fact not paired with *napisat'*^{pf}; rather, its only correlate is the atelic pf delimitative *popisat'*^{pf}. In this respect, it must be pointed out that *po-* delimitatives perform the same essential textual/discourse functions of pf verbs, such as sequencing, so that, as Mehlig

⁴ For comparison, it is worth mentioning that Koschmieder, who was well aware of the issues involved, readily recognized *po-* delimitatives as partner verbs in Polish (cf. Koschmieder 1973: 303).

⁵ The heterogeneous and homogeneous construals are closely correlated with telicity and atelicity (respectively), though not necessarily identical with the latter. Degree achievements such as *poxudet'*^{pf} ‘lose weight’ are a case in point: They are heterogeneous but not telic, i.e., there is no inherent limiting endpoint beyond which they cannot continue. For example, any time one has *been losing weight* (i.e., *xudet'* ‘was losing weight’), one has also *lost weight* (i.e., *poxude'*^{pf} ‘lost weight’); this is in contrast to genuinely telic verbs, where the impf construal (e.g., *čital'* ‘was reading’) does not entail the telic pf construal (e.g., *pročital'*^{pf} ‘read through’).

(forthcoming) observes, very many potentially telic predicates easily allow two kinds of perfectivization:

(4) Igor' **pročital^P/počital^P** "Pravdu" i leg spat'.

'Igor' read through *Pravda*/read *Pravda* a little and went to bed.'

(Mehlig [forthcoming])

It is because of this important perfectivizing role that Mehlig labels delimitatives (along with other "phasal" procedurals such as ingressesives, perduratives and semelfactives) as *aspectual* procedurals, as opposed to procedural verbs derived from telic verbs (which fulfill no such perfectivizing role, as a telic pf partner verb already exists for a given impf telic verb), e.g., *poprivyknut^P* 'get somewhat used to' < *privyknut^P* 'get used to'.

As the basic status of *po-* delimitatives in the Russian aspectual system cannot be tidily separated from the issue of aspectual pairhood, let us now briefly consider some newer approaches to this matter. A number of recent analyses have taken different approaches to aspectual pairhood as such, and taken a more flexible position on the aspectual interrelationships between Russian verbs in several important ways. Janda (forthcoming) argues that Russian verbs containing a given root comprise structured clusters, and that a native speaker's knowledge of the Russian verbal system crucially involves entire clusters of verbs and not merely pairs of verbs (a point that learners are well advised to consider). Janda's analysis suspends the traditional dichotomy in the sense that the relative importance of pf aspectual partner verbs (her term is "natural perfective") is reduced by recognizing the systemic importance of other kinds of pf verbs (i.e., the procedurals) in the network of a given lexeme. I also think her term "natural pf" is superior to the traditional term "pf partner verb" (*parnyj glagol soveršennogo vida*), as it does not implicitly preclude other pairhood relations; the reasons for this will become clear in the following sections.

The work of Volkmar Lehmann (especially 1988) has also taken a more flexible approach to pairs by introducing the concept of functional aspectual pairs. Lehmann (1988) rejects the traditional restriction of the "lexical meaning" in aspectual pairs to telic situations, and simply leaves it undefined—the lexical meaning can be one other than a

telic meaning. He claims that, when in texts *po-* delimitatives and *za-* ingressives are used in a pair-like fashion, whatever extra lexical content they add is simply “taken into the bargain,” i.e., the additional semantic content of these pf procedurals does not disrupt the “pairing”. In fact, Lehmann’s theory of functional pairs concludes that the relationship between lexical meaning and pairhood is the reverse of what is ordinarily assumed: “It is not the identity of lexical meaning that is the basis for the determination of aspectual partners, rather the functional determination of aspectual partnerships determines the degree of lexical identity present in a given case” (181). In other words, a telic aspectual opposition (e.g., *pisat*ⁿ ‘write’ vs. *napisat*^{pf} ‘write [to completion]’) involves a different kind of lexical identity than does an atelic aspectual opposition (e.g., *pisat*ⁿ ‘write’ vs. *popisat*^{pf} ‘write [for a while]'). In this regard, Lehmann is drawing on the argumentation of his earlier work, especially Lehmann (1981), in which he suggests the following definition of pairhood: “aspectual partners [are] forms that differ with respect to only one aspectual distinction,” (e.g., ± result, ± beginning and/or end, ± individualized).⁶ Such a definition of pairs does not necessarily privilege one aspectual distinction (e.g., ± result) over others. It must be kept in mind that *aspect remains a firmly binary category in the grammatical system of Russian*—with pf verbs of all kinds, both “paired” and “unpaired”, fulfilling a well-known set of textual and discourse functions (first and foremost the linking of events as unique entities in time in narrative and conversational discourse) in contrast to impf verbs. Given this strong binary nature of the category, Lehmann’s functional approach seems in my view to be more reasonable than the strict pair/non-pair dichotomy, and is also more compatible with a cognitive approach to aspectual pairhood.

2. A Cognitive Motivation for the Traditional View of Aspectual Pairhood

Despite the fact that the traditional view of pairhood appears to be somewhat arbitrary and may partly be the result of prescriptivist tendencies, one is well advised to try to determine the reason for the intuition that really does exist among native speakers that telic pf verbs such as *napisat*^{pf} are aspectually “paired” with their impf simplex

⁶ This definition leaves some problems unresolved; for example, does it force us to consider *pomaxivat*ⁿ ‘wave on and off’ [– individualized] and *maxnut*^{pf} ‘wave once’ [+ individualized] to be aspectual partners? Though I shall not consider such issues here, I think that the spirit of the definition is eminently sensible, and further development could presumably remove any unwanted effects.

correlates, whereas *po-* delimitatives such as *popisat'* are not. In this matter, it is in my view insufficient to concentrate one's attentions on linguistic facts alone; one must also motivate the "exclusive" pairhood of telic *pf* verbs cognitively. Though at first blush this might seem to be a tall order, I think it is fairly easy to do using the assumptions of some contemporary studies of human cognition.

The point is in fact elemental: The recognition and realization of goal-directed actions is one of the main tasks of human cognition. Goal orientation is in fact so central to human cognition and behavior that Newell (1990: 90, cf. also 45) describes intelligence itself as "the ability to bring to bear all the knowledge that one has in the service of one's goals". He also observes that a dominant feature of central cognition is that "[g]oals [...] direct all behavior" (1990: 160; emphasis mine—SMD). Similarly, Barsalou (1991) emphasizes that categorization is not an end in itself but a means for the successful interaction with an entity, and discusses the derivation of ad-hoc categories solely for the purpose of attaining specific goals. Such goal-derived categories (e.g., THINGS TO STAND ON TO CHANGE A LIGHT BULB) are the product of what he terms secondary categorization, which is distinct from the primary categorization that produces the taxonomic categories (e.g., BIRD) familiar from the literature. However, the existence of such goal-derived categories is a strong indication of the importance that goal attainment has for human cognition.

Particularly relevant for the present discussion is Newell's observation (1990: 115) that writing books, building houses, etc., are response functions (i.e., conditioned actions) of humans in an environment to achieve goals. In other words, *volitional acts are response functions in an environment to achieve goals*. Accordingly, inasmuch as language is grounded in human cognition—a basic assumption of cognitive linguistics—we should expect for language to reflect such goal orientation in various ways, an expectation that is borne out in numerous studies in psycholinguistics and cognitive psychology. For example, Lakusta and Landau (2005) find that children from three to seven years of age exhibit a linguistic "source and goal asymmetry", i.e., a consistent tendency to express goal paths as opposed to source paths when describing situations observed in videos, in terms of both the prepositional phrases included and the selection of the verb itself. Their findings are striking because they tested not only manner of

motion verbs (e.g., *crawl*), but also three kinds of non-spatial events—change of possession verbs (e.g., *give*), change of state verbs (e.g., *turn*) and attachment/detachment verbs (e.g., *hook/unhook*). Though Lakusta and Landau tested English speaking children, their results are consistent with findings for other languages (see the references given in Lakusta and Landau 2005: 29–30). Finally, on the level of grammatical phenomena, one might mention Shull’s (2003: 185) observation based on Russian data that the “goal orientation of language” causes source prefixes to be converted to goal prefixes by a shift of their emphasis to the resultant state. For example, the Russian source prefix *vy-* ‘out of’ tends to acquire resultative meanings involving the production or restoration of a canonical state, cf. *vymesti komnatu* ‘sweep out a room’ (and note the same effect in the English equivalent).

The linguistic goal bias observed by Lakusta and Landau (2005) correlates with findings that indicate a goal bias in pre-linguistic infants. For instance, in a set of attention experiments, Lakusta (2005) found a goal bias (the source and goal asymmetry) in the non-linguistic representation of motion events both by children and adults. Given that the goal bias is evident in both children and adults, and that it exists prior to language acquisition, Lakusta suggests that the goal bias is “a *fundamental* characteristic of non-linguistic cognition” (2005: 142; original emphasis). Furthermore, the goal bias is not a function of simple motion events: Csibra (2003) discusses experiments which indicate that year-old infants already interpret actions they observe teleologically, i.e., as goal-directed. Meltzoff (1995) observes that 18-month-old children are able to infer human goals and intentions from observing failed attempts at various actions, as evidenced by the children’s successful reenactments of the actions. Though opinions differ as to the age at which infants and children are able to infer the beliefs of an observed agent, it is clear that as young as a year they readily adopt a teleological stance, interpreting actions as goal-oriented (for various views regarding the debate on mentalism, cf. the aforementioned references).

In view of the above, I suggest that it is useful to view telic predicates, and in particular Russian pf telic predicates expressing volitional acts, as *linguistic codings of such goal-oriented response functions*. Thus, telic predicates ought to have a special status as the integral expressions of our goal-oriented behaviors. If cognition is so goal-

oriented, then it also makes sense for the expression of a successful goal-oriented response function to have a particular salience in human communication as well as in the underlying linguistic system structuring that communication. On a linguistic level, we may consider predicates such as *pisat^{pf}/napisat^{pf} pis'mo* ‘write a letter’ or *stroitⁱ/postroit^{pf} dom* ‘build a house’ as *basic-level* goal-oriented situations, i.e., the linguistically conventionalized expression of the attainment of idealized goals—or more accurately, idealized subgoals. Indeed, when humans write or build they do so to get something written or built—to achieve these goals. This biases the conceptualization of volitional actions such as ‘write a letter’ and ‘build a house’ as inherently goal-oriented, i.e., towards the production of the result inherent in Russian telic pf predicates. Clearly, human goals are multifarious to say the least, and the successful writing of a letter or building of a house is in fact usually only a step in the progress toward a goal, i.e., a subgoal that is provisionally attained in an attempt to attain some other goal. For example, Pavel’ completes writing a letter not to complete the letter *per se*, but to request that Igor’ send money, etc.⁷ This is schematized as follows:



Accordingly, telic pf predicates such as *napisat^{pf} pis'mo* ‘write a letter to completion’ ought to have correspondingly more relevance for our day-to-day behaviors and thus more importance for our linguistic behaviors than atelic pf predicates such as *popisat^{pf} pis'mo* ‘write on a letter’. The former inherently profile the attainment of a subgoal (natural result), whereas the latter do not involve the attainment of any obvious subgoal.

To sum up, just as cognition itself is heavily goal-oriented, we are justified in expecting that there will be a bias in verbal expressions of volitional actions towards goal attainment—goal-oriented predicates are the default predicate type. I suggest that this motivates the Russian (and Slavic) native-speaker intuition that the telic pf correlate of an

⁷ Zel’dovič (2002) demonstrates repeatedly how some other situation *P'* necessary in a context for the use of a pf verb in Russian is not necessarily its natural *result* (e.g., the letter or house produced), but some other unrelated *consequence* that ensues due in turn to that result. In this respect, Zel’dovič’s theory has the considerable advantage of directly comporting with the complexities of human behavior.

impf verb has a privileged status as a “partner” exhibiting minimal semantic difference from the base notion of the predicate. But this is only part of the story, and it is extremely important to point out that the bias toward goal orientation with volitional predicates, being pre-linguistic, is also necessarily *pre-aspectual*: universally, a volitional predicate such as WRITE or BUILD is conceptualized as a goal-oriented, telic situation by default regardless of the aspectual distinctions involved in a given language. Returning to Mehlig’s (forthcoming) distinction between the heterogeneous and homogeneous conceptualizations of such volitional situations, we may say that, as a consequence of the goal-orientation bias, the pair *pisat*[#]₁—*napisat*[#] (i.e., writing conceptualized as a telic process either in an impf or a pf construal) collectively represents the default/prototypical construal of WRITE in Russian. It therefore follows that the telic pf verb will be identified as the default pf partner of a predicate expressing such a volitional action. Accordingly, *napisat*[#] is readily identified as the pf partner of *pisat*[#] (which, again, is *pisat*[#]₁ by a cognitive default).

The overall salience of goal orientation in human cognition may be represented in terms of an idealized cognitive model (ICM; cf. Lakoff 1987): VOLITIONAL ACTIONS HAVE SET GOALS. Thus, the prototypical volitional action is directed at a specific goal; volitional actions that are not carried out in the pursuit of a set goal are peripheral cases. As representations of this cognitive default, linguistic predicates expressing volitional, goal-directed actions are the prototypical agentive events, whereas predicates expressing non-goal directed actions are peripheral events. This general “behavioral” ICM and its effects on linguistic coding is comparable to and compatible with Croft’s (1990) ICM for simple events in language, the properties of which are given below:

- (6) Croft’s (1990: 66) Simple Event ICM
 - (a) simple events are segments in the causal network;
 - (b) simple events involve individuals acting on other individuals (transmission of force);
 - (c) transmission of force is asymmetric;
 - (d) simple events are nonbranching causal chains;

- (6) (e) simple event structure consists of the three-segment causal chain: cause–become–state
- (f) simple events are endpoint-oriented: possible verbs consist of the last segment (stative), the second and last segments (inchoative), or the whole three segments (causative)
- (g) simple events are autonomous, that is, they can be isolated from the rest of the causal network.

Though only some of these properties are relevant for the present discussion, I have given them all for the sake of completeness. According to the ICM, the prototypical event is a causative event, and Croft (1990: 58, 62) observes that the agent is prototypically human. Though the ICM encompasses both simple physical (i.e., mechanical) causation and human volitional (i.e., teleological) causation, the fact that a human is the prototypical agent means that the three-segment causative chain ideally involves teleological causation, which brings us back to goal-oriented actions. The “endpoint-orientation” of the simple event ICM may be seen as a correlative to the “source and goal asymmetry” mentioned above, and thus as another reflection of the goal bias in cognition and language. Overall, Croft’s simple event ICM comports quite well with the evidence for a goal bias in cognition and language discussed above; moreover, it complements the goal-orientation ICM given above (which I posited before learning of Croft’s work) and considerably elaborates this line of thinking on the linguistic level.

Following the principles of Lakoff’s (1987) theory of categories, Croft suggests that the simple event ICM produces prototype effects in the coding of events in language. First, the kinds of events that fit the ICM tend to be expressed similarly across languages (e.g., agentive transitive predicates). Second (and more importantly), an agentive transitive predicate is the prototypical or unmarked expression of the three-segment causative chain, and other means of expressing it, such as passive constructions, are peripheral or marked. Returning to Russian aspect, applying Croft’s ICM means that the prototypical perfective verb will profile agentive causation in a change of state, i.e., telic, resultative predicates such as *postroit^{pf} dom* ‘build a house’—which is basically the intuition of native speakers. However, following Lakoff 1987, this prototypicality is to be

considered an *effect* of the ICM, and not a semantic feature of the category ‘perfective’ *per se*. Viewing the relationship between resultativity and perfectivity in this way corresponds to the occasional observation one finds in the Russian aspectological literature that the meaning of the perfective aspect is not simply resultativity.

Before going on to examine the consequences of the remarks given above for how we view *po-* delimitatives, I think it is useful to consider further the nature of telic perfectivization in Russian (Slavic) in this light. By assuming a cognitive (and linguistic) default of goal orientation, we may not only make sense of the array of perfectivizing prefixes in Russian but also *motivate* it as well, something aspectology has not bothered with to date. The system of subsumption (whereby the “pf partner” of a given impf verb is the pf verb containing the prefix whose trajectory overlaps to the highest degree with the dynamics of the impf source verb, e.g., *na-* ‘onto’ overlapping with the dynamic of text being transferred onto a surface by *pisanie* ‘writing’; cf. Komárek 1984) arises naturally due to the interaction of the goal bias with the semantics of each individual predicate. The prefix that most easily lends itself to the expression of the relevant resultant configuration implied by the impf source verb will form the “pf partner” of a given verb; given an inherited system of around twenty spatial prefixes, the goal bias naturally results in speakers creating pf partner verbs on a lexeme-by-lexeme basis without requiring the grammaticalization of a single telic perfectivizing prefix. In my view, Janda (forthcoming) correctly labels this paired pf verb the “natural pf”—it is the most *natural* candidate for the pf member of the aspect opposition in the case of a given predicate given the goal-bias, but not the *only* possible one in the network of verbs. Accordingly, the idea of a “natural” pf correlate for a telic impf verb allows us to obviate the debate surrounding lexically “empty” prefixes in the same manner as the subsumption hypothesis (cf. also Zaliznjak and Šmelev: 2000: 81–2): in cases where the meaning of a prefix overlaps with the meaning of a source verb enough to produce a compound verb whose meaning is identical to that of the impf source verb save for aspect, it is really immaterial whether we consider the prefix to be semantically “empty” or not.

3. A Cognitive Account of Aspectual Pairhood

At this point it is also worthwhile to reconsider the notion of aspectual pairhood itself from a cognitive linguistic point of view. As outlined in section 1, aspectual pairhood is customarily viewed simply as a relation that obtains between an impf verb and a “lexically identical” telic pf correlate. However, once we identify goal orientation as a cognitive default, this notion must be recast in a more abstract manner. And this is as it should be, for aspectual pairhood ought to be describable in terms of general principles of categorizing relationships already in use in cognitive linguistics. Factoring out the telicity of the lexically identical pf correlate leaves us with lexical identity as the relevant element in the notion of aspectual pairhood; I suggest that lexical identity may be tidily incorporated into a cognitive approach to aspectual pairhood as a network phenomenon. According to Langacker (1999: 103), complex categories are “*networks* in which linguistic structures of any kind and any size are linked in pairwise fashion by categorizing relationships” (original italics). Langacker’s view of categories seems tailor-made for an application to aspectual pairs. Thus, in Langacker’s (1999: 103) terms, within a network of verbs expressing a single lexical meaning, aspectual pairhood is *a categorizing relationship between a pair of impf and pf verbs that has a high degree of entrenchment and ease of activation*. Accordingly, we may view aspectual pairhood as the probability that a pf verb will be activated by an impf verb and vice-versa, or as the categorizing relationship that obtains between the two verbs most easily activated by some verbal notion. Thus, given the activation of the notion WRITE and the corresponding network of verbs containing the root *-pis-* ‘write’, the two verbs that are most likely to be activated are *pisatⁱ*—*napisat^p*, and they will each have a very high probability of activating the other as the context of the discourse shifts.

This definition of aspectual pairhood has several advantages. First, it accounts for aspectual pairhood in terms of theoretical cognitive linguistic constructs that have been independently motivated. Second, it allows us “to have our cake and eat it too”, in the sense that it allows and indeed assumes both the network approach to aspectuality (as proposed by Janda [forthcoming]), as well as the intuition of native speakers and linguists that there is some reality to aspectual pairhood relationships. Finally, this definition assumes a dynamic conceptualization of volitional actions, which is cognitively realistic:

WRITE is ambiguous between the prototypical, goal-oriented/heterogeneous construal (*pisat'*₁) and a peripheral/homogeneous construal (*pisat'*₂). Depending on the context, only one of these two construals will be sanctioned, and in each case a different “pair” of verbs, which are mutually linked by an entrenched categorizing relationship, is activated (*pisat'*₁—*napisat'*^p or *pisat'*₂—*popisat'*^p, respectively). Given the goal bias, the goal-oriented pair (e.g., *pisat'*₁—*napisat'*^p) will have the highest probability of activation. However, other pf verbs in a network do have lower probabilities of being activated, so that there is in fact a kind of continuum of aspectual pairhood, ranging from very entrenched (*pisat'*₁—*napisat'*^p) to an extremely low level of entrenchment (e.g., *pisat'*₂—*dopisat'sja'*^p ‘write to a negative consequence’).

4. Arguments for *PO*- Delimitatives as “Paired” Verbs

Let us now return to *po*- delimitatives. I suggest that once the goal bias of human cognition is “factored out of the equation”, *po*- delimitatives are eminently eligible as “pf partners” of their atelically construed impf source verbs, and are indeed the most “natural” pf correlate in this case. The crucial point is this: *the reason that a po-delimitative such as popisat'*^p *is not readily recognized as a pf “partner” of its impf simplex correlate is that the non-goal-oriented construal of a volitional action (response function in an environment) is a non-neutral (peripheral) construal of such an action.* In other words, given that *pisat'*₁ is the default, *popisat'*^p cannot be eligible as a pf “partner” until there is some motivation to construe ‘write’ atelically, as *pisat'*₂. Without some reason to construe *pisat'* ‘write’ as a peripheral, homogeneous predicate *pisat'*₂, there is simply no reason for *popisat'*^p to be activated as the pf of WRITE. But in situations where there is a motivation to construe a volitional action as atelic, i.e., as not progressing toward the inherent endpoint of the action and its natural result, the *po*- delimitative is available as a natural pf correlate presenting the synoptic view of a situation, i.e., as a totality (cf. Mehlig’s [forthcoming] system of the perfectivization of heterogeneous and homogeneous predicates) and linking it to some other consequence.

We may also easily account for the peripheral status of *po*- delimitatives as pf verbs with Croft’s simple event ICM. As *po*- delimitatives do not profile the canonical change of state effected by an agentive causative predicate (e.g., a resulting text in the

case of *popisat'* 'write for a while'), they are clearly non-prototypical verbs, and *ipso facto* non-prototypical pf verbs. But as mentioned above, this peripheral status is an effect of the ICM, and does not really mean that *po-* delimitatives are "less perfective" than the "prototypical" telic pf verbs: their range of uses is essentially the same as that of the latter. Here again I would point out that taking the simple event ICM into account allows one to make a distinction between the categorical meaning of perfectivity in Russian, on the one hand, and resultativity as one element of an ideal event, on the other. The approach taken by Dickey (2000) does just that, arguing that the meaning of the Russian pf is temporal definiteness (simply put, the identification of a situation as unique in a sequence or set of events). Assuming that temporal definiteness is the meaning of the Russian pf amounts to viewing all pf verbs as more or less equal members of the category (as they all equally express this meaning in discourse, whether resultative or not), in essence factoring out the prototype of resultativity as an effect of the ICM. According to this view, *po-* delimitatives profile the uniqueness of a complete episode of a homogeneous activity situation in a temporal sequence; i.e., they combine totality and sequentiality and, as such, are model specimens of pf verbs (cf. Koschmieder's [1973] view of *po-* delimitatives in Polish mentioned in fn. 14).

Given the strong cognitive default of goal orientation assumed here, it is also worthwhile to reexamine the actual usage of *po-* delimitatives in order to determine whether they have a more significant systemic role than is commonly attributed to them, in particular, whether *po-* delimitatives acquire resultative functions. Contrary to the brief descriptions in reference works, it is not clear that *po-* delimitatives always necessarily profile temporal delimitativity *per se*, i.e., the indefinite duration of a situation, as opposed to neutral "perfectivity". This has in fact been recognized by Lehmann (1981: 84–5), who gives the following examples:

- (7) a. *Zavtra utrom edem v Malinovec! Saška, ty ostaneš'sja zdes' i ostal'noe uložiš', a za baryšnej v derevne Mariška **poxodit'**.*
'Tomorrow morning we are going to Malinovec! Saška, you'll stay here and pack the rest, and Mariška will go around after [tend to] the missus in the village.'

- (7) b. Poručil ja ej vesti vsju statistiku. Dumaju, **posidiš**^{po} nad anketami v 120 paragrafov — pouspokoiš'sja.

‘I told her to take care of all the statistics. I thought, you’ll sit [for a while] over the forms with 120 paragraphs — and you’ll settle down a little.’

Lehmann’s examples are not very problematic. Though some might view *posidiš*^{po} ‘you will sit [for a while]’ in (7b) as merely expressing that the situation will continue for some time, Lehmann’s view that its primary function is to sequence the action of sitting with the subsequent action of calming down is just as convincing as arguing that there is any real foregrounding of the indefinite duration involved (see below). This brings us to an idea I have stressed before (cf. Dickey and Hutcheson [2003] and Dickey [2005]), that *po-* delimitatives perform a crucial systemic function in the Russian aspectual system—the extension of the aspect opposition to atelic activity predicates.⁸ In other words, *po-* delimitatives function to allow activity predicates to be sequenced in time on a par with telic predicates, as suggested above. Without *po-* delimitatives, the Russian aspect opposition would be restricted to telic predicates (accomplishments and achievements) and thus a much more lexical category.⁹

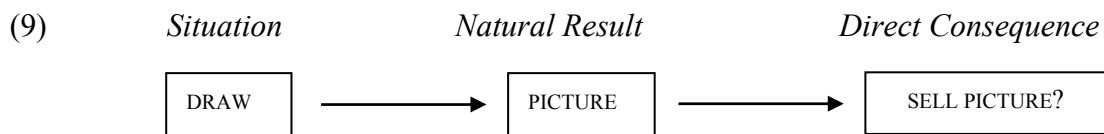
Let us further consider another function of *po-* delimitatives in the spirit of Lehmann’s remarks. Natural telic pf verbs link a heterogeneous situation to its natural result (in terms of Zel’dovič [2002], its *effekt*), i.e., *napisat*^{po} *pis'mo* directly links the writing situation temporally and causally with its resulting letter (and often with some other consequence that the letter effects). It is clear, if not generally acknowledged, that *po-* delimitatives link a situation in time to other situations in the absence of the natural result of the situation, as shown in (8):

⁸ The systemic importance of *po-* delimitatives is indicated by the extremely high productivity of delimitative *po-*, cf. Isačenko (1962: 391–2), as well as the fact that, as Camus (1998: 101) points out, *po-* is the only Russian prefix for which the number of aspectual “pairs” consisting of an imperfective simplex verb and a prefixed perfective verb is greater than the number of pairs consisting of a prefixed perfective verb and a suffixed imperfective correlate.

⁹ A corollary to this view is that in Slavic languages without productive *po-* delimitatives (e.g., Czech) the aspect opposition is much more a function of lexically telic verbs; the observation that Czech aspect is more lexical than Russian has been made in various studies, such as Stunová (1993).

- (8) Ja s godik **porisoval^p** i brosil... Četyre goda ne risuju uže...
 ‘I drew for about a year and gave up... I haven’t drawn anything for four years already...’

As in the schema given for ‘write’ in (5) above, the default, goal-oriented construal of DRAW includes the canonical result of the activity, i.e., the *unique picture* produced:

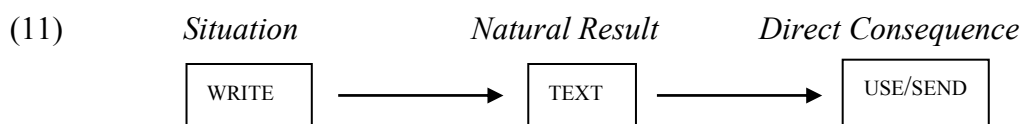


In order for the natural pf *narisovat'* to be used in Russian, the natural result (or collective set of results) must be relevant in the context. Example (8) deviates from this schema because whatever drawings were produced are not distinctive enough to be unique in the context and thus causally linked with some consequence in the discourse. This corresponds to the common intuition that *po-* delimitatives express that no result was achieved. The speaker, as it were, merely links the drawing with the decision to give it up in a temporal sequence.

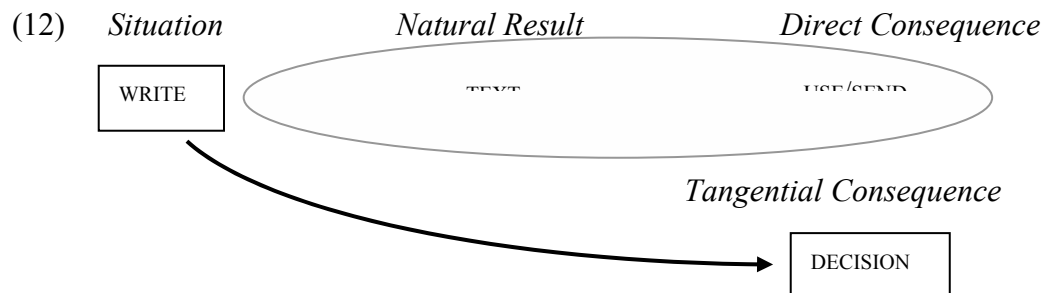
What usually escapes attention is that *po-* delimitatives, in addition to temporally quantifying a situation and linking it to other situations in time, very often directly link a situation with some *other* result, i.e., consequence. Consider the following example:

- (10) **Popisal^p** i rešil vot vpečatlenija v ètot dnevnik pozapisyvati'.
 ‘I wrote some and so decided to write down my impressions in this diary.’

Again, the default, goal-oriented construal of WRITE includes its canonical result, i.e., the *unique text* produced:



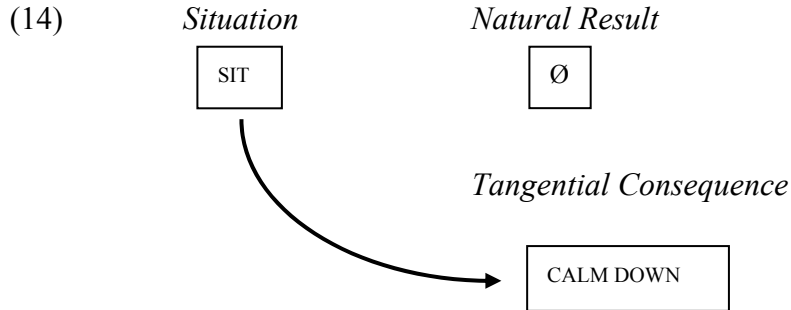
But in (10) the text produced by the writing is not mentioned; though some text was clearly produced, it is not construed as unique and as a subgoal involved with attaining a goal (effecting some consequence). Rather, it is the process of writing itself as an outlet as much as the text produced which results in a tangential consequence, the decision to start writing in the diary. We may schematize the construal reflected in (10) as follows, in which the opaque oval signals that the natural result, as well as some direct consequence of it, has been defocused:



We may relate this alternate construal back to the idea of goal orientation: in this case, the consequence of the action is not the attainment of a (sub)goal ensuing as a direct consequence of a unique natural result.

Following this logic, we may say that *po-* delimitatives of stative predicates that produce no natural results simply link the predicate to a tangential consequence. Thus, example (7b), repeated here as (13), may be schematized in terms of consequences as in (14).

- (13) Poručil ja ej vesti vsju statistiku. Dumaju, **posidiš**¹² nad anketami v 120 paragrafov — pouspokoiš'sja.
 'I told her to take care of all the statistics. I thought, you'll sit [for a while] over forms with 120 paragraphs — and you'll settle down a little.'



Thus, by means of a metonymy (*sitting* representing the compound situation of *sitting and reading*) the tangential consequence of *sitting* is *calming down*.

Other uses of *po-* delimitatives that provide support not only for Lehmann’s view that they perform a “purely aspectual” function as opposed to foregrounding duration, but also for the view that their status as partner verbs has been insufficiently appreciated. Most importantly, in my view, *po-* delimitatives can be used with the evaluative adverbs such as *slavno* ‘splendidly’, *klassno* ‘excellently, in a first-class manner’, etc., that clearly focus on the quality of the results of the actions involved. Temporal adverbs almost never occur with *po-* delimitatives alongside evaluative adverbs,¹⁰ which suggests that in such clauses *po-* delimitatives profile neutral perfectivity (leaving aside for the moment what exactly that concept is, be it totality or temporal definiteness) as opposed to duration in time. Consider the following examples; I am not aware that such usage has been discussed the aspectological literature to date:

- (15) a. Abxazskaja milicija *slavno potrobotala*^P.
 ‘The Abkhazi police did a splendid job [lit., worked splendidly].’
- b. Naša «lavočka» *neploxo potorgovala*^P.
 ‘Our “little shop” did some nice business [lit., traded quite well]

¹⁰ The only instance I have found is the following:

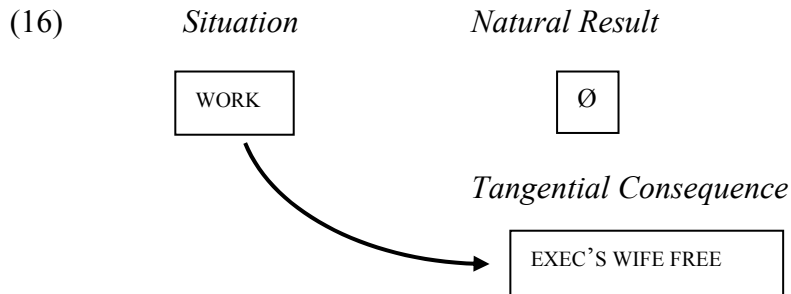
- (i) Vot tut ja *slavno pospal*^P *paru dnej* v konce otrjada.
 ‘And so I slept splendidly a couple of days at the end of the detail.’

In this example the time adverbial must be included because the duration of the time that the man ‘slept splendidly’ is longer than the typical episode of sleeping. What is meant is that there were a couple of days on which he got a good night’s sleep, as opposed to sleeping through a couple of days. This is any case a special instance, and does not contradict the analysis presented here.

- (15) c. V prošlyj raz bylo 8 **poigrali^p** *slavno*.
‘The last time there were 8 [of us], we played splendidly.’
- d. No my *slavno* **poveselilis^p**, i ja očen’ dovol’na večerom.
‘But we had a great time [lit., enjoyed ourselves splendidly], and I am very satisfied with the party.’
- e. Ux kak *klassno* **poezdili^p** — u menja ogromennye sinjaki — na spine i na kolenke pravoj, tak čto daže xodit’ bol’no... Nado pereryv sdelat’.
‘Oh how we went on a first-class ride [lit., rode with class] — I’ve got huge bruises — on my back and my right knee, so that it’s even painful to walk... I need to take a break.’

In all of these examples, *po-* delimitatives function to present the events synoptically, and the events are positively assessed and causally related to subsequent situations. There is no focus on the duration of a situation evident in common clauses such as *porabotat^p časa dva* ‘work for about two hours’. This should be clear from the fact that adding ‘for a while’ to the translations of these examples distorts the sense of the originals considerably: *slavno porabotala* means ‘did (some) splendid work’ and not ‘did splendid work for a while’, etc. The reason that the *po-* delimitatives in examples (15a–e) do not profile duration in any meaningful sense is that they perform the function of “prototypical” pf verbs, i.e., relating a situation to an ensuing result or consequence (in terms of Zel’dovič 2002, to another situation *P'* resembling an *effekt*). Further, (15a–e) are examples of the so-called perfect meaning of the pf aspect, which communicates that the result of an action is on hand and relevant for the discourse at moment of utterance, and which is usually only assumed to occur with canonical resultative verbs. Thus, in (15a), the splendid work done by the police has had the result that the wife of a business executive is now free; in (15b), the economy of the Novosibirsk oblast’ did better business in the first half of 2005, resulting in more revenue and a currently brighter economic outlook; in (15c), the performance in the soccer game has resulted in the current satisfaction of the speaker and his intention to play again; in (15d), the enjoyment during the party has produced the current satisfaction of the speaker; in (15e), the joy ride produced the bruises that the speaker now has, as well as the speaker’s current attitude

that it is time to take a break. It is important to point out that the “results” of the *po*-delimitatives in (15a–e) all belong to the class of tangential consequences, as all these verbs are atelic in Russian (more or less on a par with *sidet*[#] ‘sit’) and thus have no (linguistically encoded) natural results from which direct consequences may ensue. Thus, the consequence of *porabotal*^p ‘worked’ in (15a) is schematized—analogue to (14)—in (16):



The same applies, *mutatis mutandis*, to (15b–e).

Not surprisingly, evaluative adverbs also occur with *po*-delimitatives in narrative or mixed discourse to express tangential consequences that are positive outcomes, as shown in (17a-d):

- (17) a. My *prekrasno* **poeli**^p, *slavno* **popotali**^p, vypili nemnogo [č]udesnogo vina — v obščem, atmosfera vocarilas’ samaja čto ni na est’ otmennaja.
 ‘We had a terrific meal [lit., ate excellently], chatted splendidly, drank some heavenly wine — all in all, an atmosphere took over that was out of this world.’
- b. Na dače *slavno* **popil**^p pivka i zabył vyključit’ fary...
 ‘At the dacha I drank some beer splendidly and forgot to turn off my headlights...’

- (17) c. Posideli, popili čut' pivka, poguljali, a zatem zaexali v tir i *slavno postreljali*^p iz “Margolina”, koroče den' udalsja.
'We sat for a while, drank a little beer, took a walk, and later stopped by the shooting range and did some splendid shooting [lit., shot splendidly] with a “Margolin” [pistol], in short, the day was a success.'
- d. V ètot den' my vmeste *slavno polovili*^p, i daže “malen'kaja” ostalas' netronutoj, kak i sigarety, xotja prijateli moi slyvut zajadlivymi kurilščikami.
'On that day we did some splendid fishing [lit., caught splendidly] together, and even the “little one” [i.e., bottle] remained untouched, as did the cigarettes, though my friends have the reputation of being hard-core smokers.'

Thus, in (17a), the splendid eating and chatting produced the terrific atmosphere on a par with the drinking of the wine (and the atmosphere in turn results in adventures which would distract from the argument being developed here); in (17b), the drinking bout resulted in the desired intoxication and the subject forgetting to turn off his headlights; in (17c), the consequence of the splendid fishing did not follow directly from the procured fish, but rather the process itself was so enjoyable and thus distracting that the liquor and cigarettes remained untouched; in (17d), the splendid shooting, which took place after the sitting and drinking beer and the stroll, contributed to making the day a success, and because of his satisfaction the speaker *currently* plans another such outing. The first three of these examples, (17a–c), only involve narrative sequencing, whereas the last, (17d), combines narrative sequencing with the perfect function of the pf aspect.

The “resultative” use of *po-* delimitatives in the examples contained in (15) and (17) can in turn be explained as an effect of the strong goal orientation of cognition and language: *po-* delimitatives develop a tendency to acquire functions beyond the expression of the synoptic view of a homogeneous situation continuing for some indefinite duration: namely, the linking of a homogeneous situation with the attainment of a goal. In some cases, the resultative meaning of a delimitative becomes sufficiently entrenched to be recognized as a separate meaning. For example, *pogovorit*^p is generally recognized as having two meanings—a resultative sense ‘conclude a conversation aimed at attaining some goal’ and a delimitative sense ‘speak for a while’. Thus, it would seem

that, as Lehmann (personal communication) has suggested, there is a continuum between *po-* delimitatives and *po-* “perfectives” (cf. in this regard also Zaliznjak and Šmelev 2000: 58–9). This can be seen on the basis of a few lexemes, such as *poest^p* ‘eat’, which has been analyzed by Anstatt (2002). Consider the following examples, which show the different functions this verb performs:

- (18) a. I vsego-to *paru dnej poela^p* ot duši, a golodat’ teper’ vsju nedelju pridetsja, čtoby izbavit’sja.
‘And I ate to my heart’s content for only a few days, and now I have to starve a whole week to lose that weight again.’
- b. Večerom djadja *xorošo poel^p*, pomolilsja i leg spat’.
‘In the evening uncle ate well, prayed and went to bed.’
- c. Ja *poel^p syra* i zaxotel spat’.
‘I ate some cheese and felt like sleeping.’
- d. A on *poel^p kuricu* — appetit u nego zamečatel’nyj! — i potom zaspal.
‘And he ate chicken—he has a terrific appetite!—and then fell asleep.’
- e. Požil u Šarikova Puxov s nedelju, *poel^p ves’ zapas pišči* u vdovy i opravilsja soboj.
‘Puxov lived at Šarikov’s place for about a week, ate all the food reserves the widow had, and recovered.’

In (18a) *poest^p* ‘eat’ functions as a delimitative with a temporal adverbial characteristic of (though by no means obligatory in) such use. In (18b) *poest^p* occurs with an evaluative adverbial in the same kind of resultative use evident in exx. (15) and (17). The well-known partitive government of *poest^p* is exemplified in (18c). Example (18d) contains *poest^p* with the accusative; it is not really synonymous with *s’est^p*, i.e., it does not mean ‘ate up the chicken’, but communicates that chicken was eaten for the meal with a pf construal (note that *kuricu* ‘chicken’ is indefinite and in fact non-referential in the context). Nevertheless, this example demonstrates the flexibility of *poest^p* as a pf verb. Finally, (18e) is the corresponding distributive function of *poest^p*, which profiles the completion of eating in a manner similar to *s’est^p* ‘eat up’, except that it does not occur

with single objects (unlike the latter; cf., e.g., *moroženoe, kotoroe on s"el/*poel* ‘the ice cream that he ate’). It should be pointed out that in some of these examples, tangential consequences clearly ensue as a result of the situations coded by *poest^{pf}*: whereas the canonical goal of eating is to derive nourishment from a particular item of food, in (18a) the relevant consequence is an unintended weight gain; in (18c–d) the tangential consequence is that the subject falls asleep; in (18b) there is no obvious tangential consequence, rather this is a case of the requirement of the pf for temporal sequencing; in (18e) distributive *poest^{pf}* is much closer in its aspectual function to the natural pf *s"est^{pf}*, and we also have a direct consequence related to nourishment.

Based on the usage of intransitive *po-* delimitatives with evaluative adverbs in (15) and (17), we are clearly justified in viewing (18b) as a *po-* delimitative. Moreover, as the following example shows, the use of *poest^{pf}* with the partitive genitive is also a use of the “delimitative” verb:

- (19) Ja vsego *neskol'ko dnej poel^{pf} blinov* (3–4 blinčika), a ves na 4–5 kg pribavilsja.
‘I ate pancakes (3–4 little ones) for only a few days, and my weight increased by 4–5 kilograms.’

This accords with the suggestion by Anstatt (2002) that *poest^{pf}* governing the partitive genitive is the same atelic predicate as “delimitative” *poest^{pf}*. This leaves only distributive *poest^{pf}* ‘eat all of’ to be accounted for. It is unclear whether distributive *po-* can be successfully linked to delimitative *po-*, and this issue cannot be taken up here.¹¹ In any case, it should be clear by now that the verbs termed “*po-* delimitatives” have a functional scope that extends beyond temporal delimitativity considerably.

Further evidence of this functional scope are verbs such as *šitⁱ* ‘sew’ for which the correlate prefixed with *po-* has developed a telic function that doubles the existing

¹¹ Anstatt (2002) mistakenly considers *po-* distributives to be the equivalent of ordinary telic pf verbs (i.e., she assumes that distributive *poest^{pf}* ‘eat all of’ = *s"est^{pf}* ‘eat up’). The essential difference between distributive verbs and natural perfectives can be expressed in terms of Croft’s (1990) simple event ICM: distributive verbs are non-prototypical because they grammatically express a *branching* causal chain, in contrast to ordinary pf verbs, which profile a *single* causal chain. Nevertheless, I would argue that her view of the diffusivity and indeed ongoing evolution of the functions of *po-* in Russian accords with the overall state of affairs as far as I am aware; cf. in this regard Zaliznjak’s and Šmelev’s (2000: 112) observation that “delimitative procedural verbs display a tendency to develop into pf partner verbs”.

telic pf verb, cf. Anstatt (2002). Thus, in the case of *šitⁿ*, a pf correlate prefixed with *po-* is employed for the all the functions discussed so far, which is clear from the examples in (20).

- (20) a. Potom *nemnogo pošila^p*. Časa v četyre dnja ja zametila, čto svatki počemu-to ne prekraščajutsja.
'Then I sewed some. At about four in the afternoon I noticed that the contractions were not stopping for some reason.' [delim.]
- b. Ja special'no *pošila^p* na svoe "beremnoe" leto *legkix plat'ev i rubašek*.
'For my "pregnant" summer I specially sewed some light dresses and shirts.' [part.]
- c. Pervoe svadebnoe plat'e, kotoroe *pošila^p* Melissa v 19-t' let, bylo ee sobstvennym.
'The first wedding dress that Melissa sewed in nineteen years was her own.' [telic pf.]
- d. Ja *pošila^p* vse, kak nado: štaniki, pidžačok, a soročečku iz nosovogo platka.
'I sewed everything like it should be: little pants, a little jacket, and a little night shirt out of a handkerchief.' [distr.]

In this case, it is clear from (20c) that *pošit^p* allows a referential single object in the accusative, i.e., it functions as the telic pf of *šitⁿ* 'sew' in a manner identical to that of *sšit^p* 'sew [together]' in the following example:

- (21) Iz goroda sročno priexala tetka i *sšila^p* plat'e.
'Auntie came from the city immediately and sewed a dress.'

It is unclear how many lexemes have undergone an expansion of the functional scope of their *po-* delimitatives similar to *poest^p* or *pošit^p*; there are certainly others such as *gladitⁿ* 'iron' and *pilitⁿ* 'saw' (cf. in this regard Anstatt 2002, but with footnote 9 above in mind).

At this point, I think it is useful to consider the case of *porabotat^{pf}* ‘work for a while’ in more detail. The verbal notion WORK is a paradigm example of a volitional action, and as such is necessarily goal-oriented (the bulk of time spent at our jobs notwithstanding). But in Russian *rabotatⁱ* ‘work’ is clearly atelic on a basic perceptual level. Thus, there is a certain mismatch in the case of this verb between its grammatical properties and the nature of WORK as a goal-oriented action. I suggest that the pf “delimitative” *porabotat^{pf}* has taken the place of the missing resultative/telic pf correlate and is now “paired” with the impf *rabotatⁱ*. This corresponds to Alina Israeli’s considered opinion that, in contrast to most delimitatives such as *poguljat^{pf}* ‘stroll for a while’, *porabotat^{pf}* feels more like the pf of *rabotatⁱ* than a specifically delimitative verb (cf. again the resultative use of *porabotat^{pf}* in [15a]). Accordingly, we may view *porabotat^{pf}* as a case similar to *pogovorit^{pf}* (cf. the remarks above), which has developed a salient telic meaning from its original delimitative meaning. In other words, *porabotat^{pf}* appears to be moving toward the “perfective” end of the continuum of *po-* verbs. Inasmuch as this hypothesis is true, *potorgovat^{pf}* ‘do business for a while’ is probably another such case, as DO BUSINESS is likewise a goal-oriented yet perceptually atelic concept (cf. again in this respect ex. [15b]).

To conclude, this section has demonstrated that the functional scope of *po-*delimitatives extends considerably beyond the expression of the limited duration of a situation. Most importantly, such *po-* delimitatives can function to link an atelic situation with some ensuing consequence (as in the case of *porabotat^{pf}* in [15a]), or to link an ordinarily goal-oriented situation with a tangential consequence, i.e., some consequence that does not ensue as a result of the natural result of that situation (as in the case of *popisat^{pf}* in [9]), either because the situation has not reached completion, or because the completion is redundant (e.g., the redundant completion of writing a given amount of text in [10]). Viewing *po-* delimitatives in this way does not contradict Mehlig’s (forthcoming) observation that *po-* delimitatives present the synoptic view of a situation construed homogeneously (in contrast to telic pf verbs, which present the synoptic view of a situation construed heterogeneously). Rather, it is an alternate approach to that fact from a more discourse-oriented point of view. It should also be pointed out that the choice between a heterogeneous and a homogeneous construal is occasionally subjective

and not dependent on objective factors: the clause *xorošo poel* ‘ate well/had a good meal’ almost invariably means that something was ‘eaten up’, but the speaker chooses to ignore that aspect of the situation.

An adequate account of the aspectual functions of Russian *po-* delimitatives must include at least the following:

1. The construal of atelic situations of limited duration in sequence with other situations, e.g., *Posidel^p, otxlebnul piva, zatjanulsja* ‘He sat for a bit, took a swig of beer, and took a drag’.

2. The synoptic construal of an ordinarily goal-oriented situation that did not produce the (intended) natural result, e.g., *Ja s godik porisoval^p i brosil* ‘I drew for a year and quit’ (cf. ex. [8]).

3. The synoptic construal of an ordinarily goal-oriented situation that produced some consequence for which the (potential) natural result of the situation was irrelevant, e.g., *Popisal^p i rešil vot vpečatlenija v ètot dnevnik pozapisyvat'* ‘I wrote some and decided to write down my impressions in this diary’ (cf. ex. [10]).

4. The synoptic construal of an atelic situation that produced a specific consequence, e.g., *Abxazskaja milicija slavno porabotala^p* ‘The Abkhazi police did splendid work’ (cf. ex. [15a]).

Points 2 and 3 might be considered in fact two versions of the same phenomenon, inasmuch as the failure of a natural result to arise can lead to tangential consequences (such as the decision to give up drawing in [8]) on a par with the situation itself, as in ex. (10). In any case, what is clear from this description is that resulting consequences are involved in a good deal of the usage of *po-* delimitatives in Russian, so that these verbs fit the template of ordinary resultative telic pf verbs to a higher degree than it might seem at first glance. Given the goal-oriented nature of cognition and language, one is justified in wondering whether the causal links profiled by delimitatives in the usage presented in this section are synchronically just as important as their original function of profiling the duration of a situation in time.

5. Further Discussion of *PO*- Delimitatives and Aspectual Pairhood

In the previous section, the functional flexibility of *po*- delimitatives and the noticeable tendency for them to develop characteristics similar to ordinary telic pf verbs were adduced as reasons for considering them to be paired with their impf correlates in a manner similar to telic pf verbs. If such a proposal is to be taken seriously, some common objections to considering *po*- delimitatives as paired verbs must be addressed.

In my view, the most important of these objections involves Maslov's (1948) and Forsyth's (1970) tests for pairhood. When a past-tense narrative is transferred into the narrative present, ordinary telic pf verbs are replaced easily by their impf partners, as shown in (22):

- (22) a. On **vstal^p**, **pošel^p** k oknu i **otkryl^p** ego.
'He got up, went to the window and opened it.'
- b. On **vstaetⁱ**, **idetⁱ** k oknu i **otkryvaetⁱ** ego
'He gets up, goes to the window and opens it.' [Forsyth 1970: 35]

Po- delimitatives do not pass this test clearly, as an adverbial must be added in the narrative present:

- (23) a. Posle obeda on **pospal^p**, potom vernulsja^p na rabotu.
'After lunch he slept [for a while], then he returned to work.'
- b. Posle obeda on **spitⁱ** *nedolgo*, potom vozvraščaetsjaⁱ na rabotu.
'After lunch he sleeps for a short while, then returns to work.'
- [Forsyth 1970: 37]

Though this is an argument against considering *po*- delimitatives paired verbs, it must be pointed out that when they occur with evaluative adverbs they do pass the test, as no delimitative adverbial must be inserted in the present-tense version:

- (24) a. Abxazskaja milicija *slavno* **porabotala^p** i osvobodila založnicu.
'The Abkhazi police did splendid work and freed the hostage.'

- (24) b. Abxazskaja milicija *slavno rabotaetⁱ* i osvoboždaet založnicu.
'The Abkhazi police do some splendid work and free the hostage.'

It is also worth mentioning that *po-* delimitatives pass Forsyth's (1970: 40) modal test. In the following examples, which were constructed by native speakers in a questionnaire, positive imperatives with delimitative verbs correspond to negative imperatives containing their impf simplex correlates:

- (25) a. Ne nado *rabotatⁱ*, no esli ne terpitsja, to *porabotaj^p*!
'There's no need to work, but if you must, do some work!'
b. Ne nado *pisatⁱ* pis'mo, no esli ne terpitsja, to *popiši^p* ego!
'There's no need to write the letter, but if you must, write some on it!'
c. Ne nado *govoritⁱ*, no esli ne terpitsja, to *pogovori^p*!
'There's no need to speak, but if you must, speak some!'

Scores of similar examples could be adduced, and so it seems clear that *po-* delimitatives do pass Forsyth's modality test.

Thus, if we take the two tests together, *po-* delimitatives pass the first only partially, and pass the second entirely. We might assign them a score of 1.5 out of a possible 2; *po-* delimitatives thus score under telic pf verbs, which score a perfect 2 out of 2. The relative scores correspond to the standard intuition that telic pf verbs are paired whereas *po-* delimitatives are not. But *po-* delimitatives also do not fail these tests miserably—in fact they fare relatively well (see below). This intermediate position corresponds to a cognitive view of pairhood as the degree to which a link between two verbs of opposing aspects is entrenched, i.e., the degree to which they are likely to activate one another, which, as mentioned in section 3, predicts a continuum of pairhood.

The behavior of *po-* delimitatives in these pairhood tests also makes it clear that *po-* delimitatives are much more eligible as paired pf verbs than practically any other kind of pf procedural verb. As most procedurals add a considerable amount of lexical material to the base lexeme, the only real candidates for pf partners seem to be ingressive verbs in *za-*, e.g., *zaplakat^p* 'start crying', *zagovorit^p* 'start talking', *zaigrat^p* 'start

playing’, *zaxodit^p* ‘start walking’, as this prefix would seem to contribute the least amount of additional lexical content of the remaining procedural prefixes. Such verbs can pass the narrative-present test, as shown in (26–7):

- (26) a. Vključili motor i mašina **zarabotala^p**.
‘They turned on the engine and the car started running.’
b. Vključajut motor i mašina **rabotaetⁱ**.
‘They turn on the engine and the car is running.’
- (27) a. Tut on vskočil i nervno **zaxodil^p** po komnate...
‘Then he jumped up and started walking nervously around the room...’
b. Tut on vskakivaet i nervno **xodit** po komnate...
‘Then he jumps up and walks nervously around the room...’
(Zaliznjak and Šmelev, [2002])

However, as Zaliznjak and Šmelev observe, *za-* ingressives pass the test only imperfectly, as adverbs such as *vnezapno* ‘suddenly’ do not allow such a clean transposition into the narrative present:

- (28) a. Mašina *vnezapno* **zarabotala^p**.
‘The engine suddenly started running.’
b. *Mašina *vnezapno* **rabotaetⁱ**.
‘The engine is suddenly running.’ (Zaliznjak and Šmelev, [2002])

Thus, *za-* ingressives only imperfectly pass the narrative-present test. Moreover, according to the informants I queried, *za-* ingressives fail Forsyth’s modal test:

- (29) a. *Ne nado **bespokoit’sjaⁱ**, no esli ne terpitsja, to **zabespokojsja^p**!
‘There’s no need to be upset, but if you must, get upset!’
b. *Ne nado **xoditⁱ** po komnate, no esli ne terpitsja, to **zaxodi^p**!
‘There’s no need to walk around the room, but if you must, start walking!’

- (29) c. ?Ne nado **igrat**ⁱ, no esli ne terpitsja, to **zaigrat**^p!
'There's no need to play, but if you must, then start playing!'

Informants did not approve of any *za-* ingressives in such imperative constructions. The reason is that *za-* ingressives in fact have semantic nuances beyond simple ingressivity, e.g., suddenness and seamless continuity, etc. (for details, see Dickey 2000 and Zaliznjak and Šmelev 2002), which render them unsuitable for the planning involved with imperatives (this is why the imperative of *zabespokoit'sja*^p 'get upset' does not even exist). It is possible to tell someone to begin doing something, but for this purpose Russian employs either a phase verb construction, e.g., *Načni igrat!* 'Begin playing!' or a bare impf imperative, e.g. *Igraj!* 'Play!', as these forms do not have the added nuances of suddenness and seamless continuity (which are often ignored in discussions of ingressivity) of *za-* ingressives.

Thus, *za-* ingressives score at most only a 1 out of 2 in the pairhood tests, lower than *po-* delimitatives. This is not surprising, as *za-* ingressives are largely restricted to expressing the sudden inception of a situation in past-tense narratives. This leaves us with *po-* delimitatives as the kind of pf procedural verb most eligible for pairhood, and this makes sense, as *po-* delimitatives have the lowest amount of additional semantic content of any kind of (atelic) pf procedural verb. Recall in this respect Flier's (1985: 50) observation that *po-* delimitatives do not express short duration, but in fact indefinite duration. I would in fact argue that *po-* delimitatives come closest to expressing the meaning of the pf aspect in its pure form: a complete episode of a situation presented synoptically and in sequence with other situations. As suggested above, it is the goal bias in cognition and behavior that accounts for the fact that telic, resultative pf verbs are considered to be the prototypical pf verb.

6. Concluding Remarks

This paper has attempted to reexamine the issue of aspectual pairhood in Russian, for the purpose of arguing for a different view of the status of *po-* delimitatives. In doing so, it has been argued that the intuition that telic pf verbs are "paired" in contrast to *po-* delimitatives is a consequence of the goal-oriented nature of cognition, behavior and,

accordingly, language. As pointed out in section 2, this powerful goal bias is in fact not only pre-aspectual but also pre-linguistic, so that the default construal of a volitional action is the goal-oriented/telic/heterogeneous construal in both impf as well as pf verbs. Taking the lexeme WRITE as an example, this means that telic *pisatʹ*ⁿ and its telic pf correlate *napisatʹ*^{pf} are collectively the default construal of WRITE. The non-goal-oriented/atelic/homogeneous construal of a volitional action is accordingly marked, and a speaker must have some reason to activate atelic *pisatʹ*ⁿ and its atelic pf correlate *popisatʹ*^{pf} as the expression of WRITE. Once we factor out the goal bias, then *po-* delimitatives seem very eligible as neutral pf partners of their atelic impf correlates.

The view of predicates that has been presented here is necessarily simplified. As one reviewer pointed out, there are volitional predicates that do not appear to have natural pf verbs, e.g., *dutʹ*ⁿ ‘blow’ and *bitʹ*ⁿ ‘beat’. But such predicates do not invalidate the analysis offered here. Rather, their different properties stem from the fact that these basic predicates are inherently more diffuse than volitional predicates such as *pisatʹ*ⁿ ‘write’ and *čitatʹ*ⁿ ‘read’. First, *dutʹ*ⁿ is in fact not exclusively volitional (cf. *veter duet* ‘the wind blows’), and though most agentive predicates are also goal-oriented, the hypothesis advocated here does not predict that all are. Second, the vagueness of *bitʹ*ⁿ as a volitional predicate precludes generalizing one kind of goal-oriented action as its telic construal. I have already suggested that *porabotatʹ*^{pf} ‘work a while’ is an “ersatz” for the nonexistent original natural pf of volitional *rabotatʹ*ⁿ ‘work’. The diversity of properties of various predicate types certainly deserve detailed examination, but does not present a problem to this analysis in principle.

It has been argued that the so-called *po-* delimitatives are in fact functionally more diverse than is often assumed. A case in point is the use of *po-* delimitatives with evaluative adverbs such as *slavno* ‘splendidly’ and *klassno* ‘excellently’, where these verbs foreground duration in time little or not at all, and in fact profile links with consequences in a fashion almost identical to telic pf verbs. In addition to the well-known synoptic construal of situations that continue for an indefinite period of time, *po-* delimitatives also function to profile links with consequences when the natural result of a goal-oriented action fails to materialize, when an ordinarily goal-oriented situation has a consequence for which the natural result of the action is irrelevant, and when an atelic

process (which has no natural result) effects a consequence. Such consequences are termed *tangential consequences*, as opposed to *direct consequences*, which arise as due to the production of a natural result. Considered in this light, *po-* delimitatives arguably do not primarily profile the indefinite duration of a situation, but rather function as a kind of alternative pf verb which links a situation to other states of affairs/consequences outside of the “conduit” of the natural result of a volitional action. And thus the definition of *po-* delimitatives as a procedural verb expressing duration in time is merely a superficial description reflecting the frequent co-occurrence of *po-* delimitatives with durational adverbials in texts. If so, the term *delimitativnyj sposob dejstvija* is a misnomer, though it is far from me to wish to lard up Slavic aspectology with even more competing terminologies than it already suffers from.

The function of *po-* delimitatives to profile temporal (and causal) links with tangential consequences may in fact be considered another effect of the pervasive goal orientation of cognition, behavior and language: if this goal bias really exists, then it only makes sense that members of a class of originally non-resultative verbs would acquire various “resultative” senses. The view that *po-* delimitatives play a role considerably larger than the mere expression of the indefinite duration of a situation accords with a fact that is obvious from comparative aspectology, that *po-* delimitatives in Russian (and East Slavic) have played a crucial role in the grammaticalization of the aspect in Russian by extending the originally lexically-conditioned aspect opposition from telic predicates to atelic predicates (cf. Dickey and Hutcheson 2003).

The view taken here presupposes a network approach to Russian aspect, along the lines of Janda (forthcoming). At the same time, it retains aspectual pairhood, but in a non-traditional version: pairhood is simply a term for the entrenched “pairwise” (to use Langacker’s [1999] term) links between verbs in an aspect network, and is dynamic, as opposed to static. An aspect pair is 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. From this perspective, it is conceivable that various pf procedurals (e.g., *za-* ingressives) can at times be activated as the most suitable pf correlate to an impf predicate (cf. Lehmann 1988), however, telic pf verbs have

consistently the highest probability of activation for the reasons given above. And coming in a strong second are the *po*-delimitatives.

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