

Variation, aspectual interpretation and phase verbs*

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1. Introduction

A widely adopted classification of aspectual type is that based on Vendler's (1967) four-way aspectual classification of verbs into *accomplishments*, *achievements*, *activities* and *statives*.¹ Moreover, some have assumed, either explicitly or implicitly, that this aspectual classification is universal (see, for instance, Borer 2005, Krifka 1992, Filip 1999). That is, each language has predicates² that can be classified as accomplishments, achievements, activities and statives. Of course, part of the assumption that these predicate classes are universal, necessarily depends on how they are defined.

In this paper, I provide one piece of evidence that telic predicates in Russian are all achievements. That is, there are no accomplishments in Russian. Achievements are widely considered to describe events as punctual, essentially instantaneous (Rothstein 2004, Dowty 1979, Vendler 1967), and an intuition about the interpretation of Slavic perfective forms of verbs is that they describe point-like events (Comrie 1976, Ridjanović 1979, and references therein). The claim here is not that all perfective forms are achievements, since it has already been shown that not all perfectivized verbs are telic (Borik 2002). Nevertheless, I will suggest that the intuition regarding perfective forms reflects a fact about telic predicates in Russian: they are point-like; they are achievements.

The addition of a lexical prefix to a bare imperfective verb results in a telic interpretation of the predicate. There are also bare unprefixated perfective verb forms as well (i.e. *dat* "give" *kupit* "buy") that are also telic. These two classes of telic predicates behave the same. Additionally, an imperfective verb form can give rise to a telic interpretation as well, on what has been referred to as a *general factual* interpretation (Borik 2002, Dickey 2000). In this paper, I focus on lexically prefixed forms of the verb and the general factual interpretation of imperfective forms (from here on *GFI imperfectives*). I discuss their behavior as the complements to *phase verbs* (i.e. *perestat* "stop", *načat* "begin" etc.). In particular, through a comparison of English phase

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¹ Vendler (1967) uses activity, accomplishment, achievement and state *term*. Smith (1991) suggests the existence of another class that she terms *semelfactives*.

² In languages like English, this classification applies to not just the lexical verb, but the verb phrase (Dowty 1979, Rothstein 2004 etc.), as has been widely noted. Thus, I refer to predicates as accomplishments, achievements, etc. For Russian (and Slavic quite generally) a question arises as to whether this aspectual classification applies to the lexical verb alone, since in order to affect the aspectual character of the predicate elements are "very close" to the verb (i.e. prefixes, suffixes and infixes).

verbs,³ I argue that the reason why these telic forms cannot appear as phase verb complements is that they are achievements.

A question arises at this point with respect to why it might be that telic predicates in Russian are all achievements. In principle, given the existence of accomplishments, some telic predicates in Russian could be accomplishments. I will suggest that the lack of accomplishments in Russian results from an abstract parameter that regulates how the event structure (ES) properties of a predicate are syntactically manifested. Moreover, I will suggest that the effect of this abstract parameter can be tied to the proposal that English and Russian vary aspectually with respect to the presence vs. absence of an aspectual projection, AspP, between *v*P and VP (MacDonald 2008, forthcoming).⁴ In line with Thráinsson's (1996) *Limited Diversity Hypothesis* AspP is an available functional projection in the inventory of functional projections of English, while it is not in Russian. Moreover, I suggest, that the presence vs. absence of AspP produces a semantic effect (cf. Fukui 1995), the result of which is that Russian telic predicates are all achievements, while this is not the case in English. In this respect, variation in terms of the presence vs. absence of a projection fundamentally differs from what can be termed *silent variation* (Sigurðsson 2004, Kayne 2005) in which the underlying structure and semantics is the same, and variation is restricted to which portions are pronounced and which are not, i.e. silent.

The paper is organized as follows. In section 2, I lay out my basic assumptions regarding event structure and the characterization of the four aspectual predicate classes. In section 3, I briefly outline the fundamentals of Schoorlemmer's (1994) syntactic account of Russian phase verb complementation. We see two cases of imperfective verb forms that cannot appear as the complement of phase verbs—stative and GFI imperfectives—which is not predicted by her syntactic account. The patterns suggest that semantics must be playing some role. In section 4, we see how Russian and English phase verbs themselves show the same range of properties. This discussion draws heavily from observations by Schoorlemmer (1994) and those collected in Fukuda (2008). Based on these similarities, I motivate a comparison between the patterns of phase verb complementation in Russian and English, expanding observations made in Freed (1979). I argue that the complementation patterns can be explained in terms of duration; only complements that have duration are compatible under phase verbs. In section 5, I also suggest that the contribution of duration by superlexical *po* and *pro* explains why they are not able to appear as complements of phase verbs either. Finally, in section 6, I discuss the nature of variation between Russian and English. This places it within a larger context of language variation, and provides a way of understanding the lack of accomplishments in Russian, and, more generally, the non-universality of accomplishments.

³ Freed (1979) refers to these verbs as *aspectualizers*. Fukuda (2008 and references therein) uses the term *aspectual* verbs. I use the term *phase* verb for ease of exposition, and given that, as we will see, Russian phase verbs and English phase verbs pattern together.

⁴ See also MacDonald & Markova (forthcoming) who discuss a distinction between verbs in Bulgarian that follow the standard Slavic paradigm and those that have been called biaspectual. The standard verbs pattern as if they lacked AspP, while biaspectual verbs pattern as if they had AspP.

2. Event structure assumptions

The difference between accomplishments and achievements can be thought of in terms of a difference in event structure (ES). I assume there to be three fundamental elements involved in the ES properties of a predicate: 1. An initial temporal bound, i.e. a beginning to an event. 2. A final temporal bound, i.e. an end to an event; and 3. The relation between the two bounds, related to duration. It is important to note that predicate types *describe* events and it is this linguistic description that is relevant. I characterize accomplishments as predicates that describe an event as having an initial and a final temporal bound, between which time elapses. In contrast, achievements describe an event that has both an initial and final temporal bound which occur at the same time; that is, no time elapses between the two bounds. Thus, the difference between accomplishments and achievements is a difference in the relation between the initial and final temporal bound which relates directly to whether time elapses between the beginning and end of the event or not. To complete the paradigm, I take activities to describe events that have an initial temporal bound and duration. Statives describe events that do not have an initial or final bound, and they lack duration (see also Smith 1983) or are *atemporal* (Filip 1999). Moreover, I assume that only predicates that describe events with an initial and final bound are telic. Consequently, only accomplishments and achievements are telic.

I take these temporal bounds to be the elements of the *event runtime* which interact with the *assertion/reference time* (and indirectly with the *utterance time*) in the sense of Demirdache & Uribe-Etxebarria (2000, 2004, 2007). Moreover, I assume that an interval semantics (as in Bennet & Partee 1978, Dowty 1979) can capture these different ES properties.

3. Russian phase verbs

Phase verb complementation is a widely used diagnostic for the determination of the (im)perfectivity of a verb. Only imperfectives can be complements (Borik 2002, Gehrke 2008, Schoorlemmer 1994, Ramchand 2004).⁵

- (1) a. Vanja načal **stroit'** dom [Schoorlemmer 1995:81]
V. started-PF build-IMP house
b. * Vanja načal **postroit'** dom
V. started-PF build-PF house

Although a widely used diagnostic, there is a striking lack of accounts. The only explicit account that I am aware of is Schoorlemmer (1994).⁶ She

⁵ Note that secondary imperfectives can embed, illustrated in (i) and simple unprefixated perfectives cannot, illustrated in (ii), from Gehrke (2008:158):

(i) On načal pod-pis-yva-t' pis'mo. (ii) #Mary perestala kupit' pivo.
he began.PF UNDER.write.IPF letter.ACC Mary stopped buy-perf. beer
“He began to sign a/the letter.” “Mary stopped buying beer.”

⁶ Ramchand (2004: 349) states that she has no formally worked out analysis, but that she “would argue that phasal verbs, being themselves verbal forms that impose a specific temporal transition time, also select for complements with a non-presuppositional time structure (indefinite/imperfective AspP).”

assumes the presence of an aspectual projection, AspP, immediately dominating what under current assumptions would be vP , and which bears a negative or positive value for “perfective”. Thus, the more precise question she address is “Why is AspP[+pf] excluded in the complement of aspectuals?” (Schoorlemmer 1994: 402). I very briefly outline the main thrust behind Schoorlemmer’s (1994) answer without entering into the technical details or the motivation behind them. Adopting Guéron & Hoekstra’s (1998) theory of T-linking and T-chains and collapsing it with Zwarts’s (1992) event-role binding, rooted in Higginbotham’s (1985) system of Θ -role assignment, Schoorlemmer claims that the AspP of phase verbs, being raising verbs—arguments for which we will see below—and taking TP complements, must have the same feature of the complement verb’s AspP. More concretely, only when the complement verb’s AspP is unmarked can the correct event-binding between the two AspPs take place. Asp[-pf], which corresponds to the imperfective form of the verb, is the unmarked choice, and the only option. In this way, Schoorlemmer provides a syntactic account of phase verb complementation rooted in feature (in)compatibility governed by binding requirements.

This approach predicts that any imperfective form of a verb should be able to embed under a phase verb, since it is unmarked. This prediction is not entirely borne out, since there are imperfective forms that cannot appear as phase verb complements. First observe that some stative imperfectives fail to be phase verb complements, illustrated in (2).⁷

- (2)
- a. #Vanja načal vesit’ 100 kilogramm.
Vanja began weigh-IMP 100 kilograms
“Vanja began to weigh 100 kilos.”
 - b. #Vanja načal otsutstvovat’ sredi zritelej
Vanja began be absent-IMP among viewers
“Vanja began to be absent from the audience.”
 - c. #Maria perestala znat’ fermeru
Mary stopped know farmer.ACC
‘Mary stopped knowing a farmer.’

Nevertheless, there are some statives that are licensed as complements of phase verbs, illustrated in (3).

- (3)
- a. Maria perestala nenavidet’ pivo.
Mary stopped hate-IMP beer
“Mary stopped hating beer.”
 - b. Maria načala ponimat’ Vanju/otvet.
Mary began understand Vanja.ACC/ answer.ACC
“Mary began to understand Vanja/the answer.”
 - c. Maria perestala ljubiti’ Vanju
Mary stopped love Vanja.ACC
‘Mary stopped loving Vanja.’

⁷ As a broad test for stativity I am taking those verbs that are true down to instants (Dowty 1979, Rothstein 2004 etc.). Some stative predicates are well-known to show variability; I briefly address this below in section 4.

These stative predicate phase verb complementation facts suggest both that being imperfective, although perhaps a necessary condition, is not a sufficient condition to be a phase verb complement and that the semantics of the complement verb may be playing a role. That semantics is playing a role becomes evident when considering Russian GFI imperfectives as phase verb complements. First, observe data from Borik (2002) and Braginsky & Rothstein (2008), in (4) and (5) respectively, which illustrate that (at least some) GFI imperfectives allow a telic interpretation, evidenced by the compatibility of the time span adverbial.

- (4) Petja uže peresekal etot kanal za polčasa/*polčasa⁸
 Peter already cross-IMP this channel in half-hour/*half-hour
 “Peter (has) already crossed this channel in/*for half an hour.”
- (5) Ivan uže čital_{IMPF} *Vojnu I mir* za dve nedeli.
 Ivan already read *War and Peace* in two weeks
 “Ivan has already read *War and Peace* in two weeks.”

Note moreover, that while the imperfective form of a verb generally disallows direct objects like *a bottle of wine*, bare *wine* being preferred, as illustrated in (6a), on a general factual interpretation it is allowed, illustrated in (6b).

- (6) a. Ja pil ??butylku vina/vino.
 I drank-imp. ??a-bottle of-wine/wine.
 “I drank a bottle of wine in one minute.”
- b. Ja uže pil butylku vina za odnu minutu.
 I already drank-imp. a-bottle of-wine in one minute
 “I has already drunk a bottle of wine in one minute.”

Also, consider the interpretation of the preposition *k* in (7) on a progressive interpretation of the imperfective verb.

- (7) Pticy leteli k lesu (v tečeniji časa).
 birds flew-imp. toward forest (during an hour)
 “The birds flew toward the forest (for an hour).”

In (7) there is no entailment that the birds reach the forest, thus the translation as *toward*. Nevertheless, on a general factual interpretation, this entailment does arise—thus the translation as *to*—illustrated in (8).⁹

- (8) Pticy uže letali k lesu za čas.
 Birds already flew-imp. to forest in hour.
 “The birds have already flown to the forest in an hour.”

⁸ I have simplified the gloss and the translation in this example. This does not affect the point.

⁹ Note that in (7) the verb is a directed motion verb *letet'*. For some reason, this verb is not compatible with the general factual interpretation, thus the non-directed motion verb *letat'* is used in (8). I have no explanation for this fact.

These GFI imperfectives pattern with their perfective counterparts, in which *a bottle of wine* is perfectly fine, illustrated in (9a), and in which there is an entailment that the birds reach the forest, illustrated in (9b).

- (9) a. Ja vypil butylku vina.
I perf.-drank a-bottle of-wine
“I drank a bottle of wine/wine in an hour/for an hour.”
- b. Pticy prileteli k lesu.
birds perf.-flew to forest
“The birds flew to the forest.”

Although the GFI imperfectives pattern here with perfectives, GFI imperfectives are formally imperfective. What seems to be the relevant property here is that they are telic. Now, observe in (10) that GFI imperfectives cannot be the complements of phase verbs.

- (10) a. Vanja načal/perestal pit' ??butylku vina/vino .
Vanja began/stopped drink.imp ??a-bottle of-wine/wine.
“Vanje began/stopped drinking a bottle of wine.”
- b. Pticy načali/perestali letet' k lesu.
birds began/stopped flew-imp. toward forest
“The birds began/stopped flying toward the forest.”

More concretely, the patterns of the simple imperfective appear in which *a bottle of wine* is dispreferred to *wine* here in (10a) and in which there is no entailment that the birds reach the forest in (10b).

These facts suggest that there is more to being a phase verb complement than being imperfective. They suggest that semantics in playing a crucial role. English phase verb complementation is also conditioned by the semantics of the complement verb (Freed 1979, Fukuda 2008). If we can justify treating Russian and English phase verbs alike, conclusions drawn about English phase verb complementation might offer new insight into Russian phase verb complementation. In the next section, I offer motivation to treat Russian and English phase verbs alike.

4. English and Russian phase verbs

There are at least three ways in which English and Russian phase verbs pattern together. The English phase verb observations noted come directly from Fukuda (2008) and references therein. The Russian phase verb observations come directly from Schoorlemmer (1994). First observe that the subject of a phase verb can be non-thematic.

- (11) a. Načinaet/prodolžaet temnet'¹⁰
Starts/continue get-dark-IMP-INF
“It is beginning/continuing to get dark.”

¹⁰ This example is based on an example from Schoorlemmer (1994). The observation is hers.

- b. It began/continued to rain.

Phase verbs do not put a restriction on the subject that can occur. In this respect, they behave like raising verbs. Second, observe that a subject quantifier interacts scopally with the phase verb, again in this respect, patterning with raising verbs.

- (12) a. Mnogie deti prodolžali prixodit'
 manyNOM/PL children continued come-INF:
 i. there were many children such that they continued to come
 ii. it continued to be the case that many children came.
 b. Someone from NY started to win the lottery.
 i. someone > start (specific)
 ii. start > someone (existential)

In each case, there are two interpretations of the subject quantifier as a function of its scope with respect to the phase verb. Third, observe that two conflicting temporal expressions are incompatible with phase verbs and their complements, suggesting that phase verbs constructions are monoclausal.

- (13) a. *V 4 časa, deti načali čitat' v 5 časov
 At 4 o'clock, children started read-INF at 5 o'clock
 b. *Yesterday, John began to leave tomorrow.

I take these parallels as motivation to draw conclusions about Russian phase verb complements based on conclusions about English phase verb complements. We now consider English phase verb complementation patterns.

4.1. English phase verb complements¹¹

In English, accomplishments and activities are fine as complements to phase verbs, illustrated in (14a) and (14b) respectively.¹²

- (14) a. John began to read the book/to drink a bottle of wine.
 b. John began to run (from the police)/to drink beer.

Importantly, observe that accomplishments allows for a *single event interpretation*. Thus, we could continue (14a) with *..but then he was interrupted after the first page/first sip...and didn't finish*. This will contrast with achievements, which, we will see below, allow only for an iterative interpretation (see also Dowty 1979). The situation with respect to stative and achievement predicates is a bit more complex. I discuss statives first. Some

¹¹ It should be noted that both English and Russian phase verbs can take nominal complements. I do not discuss them here. Moreover, some English phase verbs can take gerundive complements as well: *John began to study/studying for the exam. Finish, keep, stop* take only gerundives. *Begin, start, continue, and cease* can take either a gerundive or a *to* infinitive. I do not discuss gerundive complements here because Russian does not allow them.

¹² Note that Dowty (1979) observes that activities cannot be complements to *finish*. The judgements are not very clear to me: *John finished running earlier* seems perfectly grammatical. Dowty suggests here that in this case *run* is interpreted as an accomplishment.

statives can be the complements of phase verbs, while some cannot, as we saw for Russian, illustrated in (15) and (16) respectively.¹³

- (15) a. John began to think about the issue.
b. John began to understand the problem.
c. The snow began to cover the hill.
d. John began to wonder about his life.
e. John began to have a problem with his radiator.
- (16) a. #John began to possess property.
b. #John began to seem tired.
c. #John began to weigh 100 lbs.
d. #The bottle began to contain wine.
e. #The proposition began to entail the other one.
f. # John began to know the solution.

As phase verb complements, the statives in (15) pattern more with activities than with statives. Thus, when one begins to think about something, there is a mental process taking place; when the snow begins to cover the hill, snow falls and gradually covers it. Moreover, it is interesting to note that those statives that can appear as complements in (15), are those that can appear in the progressive, illustrated in (17).

- (17) a. John is thinking about the issue.
b. John is understanding the problem.
c. The snow is covering the hill.
d. John is wondering about his life.
e. John is having a problem with his radiator.

When in the progressive, these statives take on more of an activity interpretation (Dowty 1979, Moens & Steedman 1988, Smith 1983). In contrast, those statives that cannot be phase verb complements in (16), are not well-formed in the progressive, illustrated in (18).

- (18) a. #John is possessing property.
b. #John is seeming tired.
c. #John is weighing 100 lbs.
d. #The bottle is containing wine.
e. #The proposition is entailing the other one.
f. # John is knowing the answer.

It is well-known that (some) statives are quite flexible and can take on eventive interpretations (Dowty 1979, Mufwene 1984, Rothstein 2004, Smith

¹³ *Begin* contrasts with *start* here, but this is arguably due to the different semantics of *begin* and *start* as noted by Freed (1979). Whereas with *begin* there is an interpretation that involves the internal make up of the event described by the complement verb, i.e. its runtime; with *start*, there is an interpretation that involves a period of time, or phase, prior to the actual runtime of the event described by the complement verb. Thus, *start* and *begin* might show different distributions, since the properties of the phase before the runtime of an event are not necessarily the same as those of the event runtime itself.

1983, 1991, de Swart 1998, Zucchi 1998). I would like to suggest here that what regulates the appearance of a stative as a phase verb complement is its ability to be coerced into an eventive predicate. I do not discuss the facts involved in the coercion of a stative into an eventive predicate, but note that pragmatics may play a role (Mufwene 1984, Smith 1983, de Swart 1998) or the type of state involved, whether it is a *permanent* or *transitory* state (Ridjanović 1976) or whether the stative is an *interval predicate* (Dowty 1979). So, in a sense, the statives that are phase verb complements are not statives, because they are coerced. Those statives that cannot be phase verb complements resist coercion and maintain their stative status.

Now, some achievements, like some statives, can be the complement of phase verbs, but some, like some statives, cannot. Those that cannot be complements are illustrated in (19) and those that can are illustrated in (20).

- (19) a. #John began to become an architect.
 b. #John began to recognize the man.
 c. #John began to arrive.
 d. #John began to have a glass of wine.
- (20) a. John began to take his lunch to work.
 b. John began to miss a note.
 c. John began to lock the door.

Note that it is only on an iterative interpretation that the achievements in (20) can appear as complements (Freed 1979 refers to them as *series*). Thus, (20a) can be continued by *...since it was cheaper than buying*, which facilitates the iterative interpretation. In contrast an extension such as *...but I tripped him, so he dropped it*, is infelicitous because it would force a single event interpretation, which is not available. Similarly, (20b) can felicitously be continued by *...whenever that girl was in the audience*, making more salient the iterative interpretation, while *...but he stopped before playing it*, is odd because there is no single event interpretation available.

Note that those achievements that can appear as complements, allow for what I will refer to as a *bare iterative* interpretation under a *for*-adverbial. By *bare*, I mean that there is no overt quantificational element. So, observe that while the achievements from (20) allow for a bare iterative interpretation, those from (19) do not, illustrated in (21) and (22) respectively.

- (21) a. John took his lunch to work for a month
 (then he got a raise so...)
 b. John missed the note for a week
 (then he learned how to play the piece correctly).
 c. John locked the door for a month
 (then he felt safe again and stopped locking it).
- (22) a. #John became an architect for a year
 (and each time he got a diploma).
 b. #John arrived for a week

- (and each time, he arrived late).¹⁴
- c. #John recognized her for a month
(and on each occasion, he shook her hand).
 - d. #John had a glass of wine for a month
(and on each occasion he slammed it).

Pragmatics seems to play a role for the achievements in (21), thus the iterative interpretation is facilitated by the contexts in parenthesis. This does not seem to be the case for the achievements in (22), even with a suitable context.

I should note that there are other ways to coerce statives and achievements, often times certain constructions, additional material, or contexts facilitates coercion (Moens & Steedman 1988, de Swart 1998, Zucchi 1998). I do not expand the discussion of coercion here for the sake of simplification, since the limited coercion that has been discussed offers a clearer view of the semantic condition regulating phase verb complements, which in turn will allow for a more straightforward initial comparison with Russian. Nevertheless, a more extensive discussion of coercion is relevant, but left for future research.

To recap the patterns, we have seen that accomplishments, activities, statives coerced into activities, and iterated achievements can appear as complements to English phase verbs. One property that these all have in common is that they express some amount of duration. In contrast, incoercible statives and uniterable achievements cannot be complements. One property that they have in common is a lack of duration, extension in time or stages (Rothstein 2004). Statives can be analyzed as true down to instants (Dowty 1979). Instants do not have an extension in time, by definition. Consequently, statives do not require duration, or extension in time, to be stative. Achievements, as noted above in section 2, are punctual. That is, the beginning of the event and the end of the event they describe occur at the same time. By occurring at the same time, no time elapses between the beginning and the end. Achievements lack duration. From this, I conclude that the English phase verb complements must express duration.¹⁵

4.2. Russian phase verb complements

Recall that we concluded above that Russian and English phase verbs themselves pattern together. Of particular interest is the conclusion that they both take monoclausal complements. If they take the same size complements, we might expect that their complements must also meet the same semantic conditions. Concretely, we might also expect that Russian phase verb complements must also express duration. This would explain why (certain) statives cannot be complements straightforwardly, because they lack duration.

¹⁴ Note that with additional material the iterative interpretation improves: *John arrived to class on time for a week*. The same goes for (22d): *John had a glass of wine at lunch for a month*. This overt material is introducing some quantification, and I assume that this is responsible for the available iterative interpretation. But this is not a *bare iterative* interpretation.

¹⁵ Dalina Kaluli (pc) suggests that perhaps the relevant complementation property is dynamicity. This won't suffice, however, since while statives are not dynamic, achievements are, given that there is a minimal change from $\neg P$ to P in achievements (Dowty 1979, Rothstein 2004). Consequently, statives and achievements do not pattern together with respect to dynamicity (de Swart 1998).

If lexically prefixed verbs and GFI imperfectives were achievements, this would also explain why they cannot be complements either, since they would also lack duration. This is what I would like to suggest in this section.

Let us first consider Russian statives again. Recall that some statives were able to appear as complements of phase verbs. Observe that each of these can be perfectivized, two with a prefix, and one with a basic (non-prefixed form), illustrated in (23).

- (23) a. voz-nenavidet'
 b. po-ljubit'
 c. ponjat'

When perfectivized, these statives take on more of an eventive interpretation, often corresponding to an inchoative. Essentially, they are coerced (see also Filip 1999 for Czech). With respect to the statives that cannot appear as the complement of phase verbs, Dickey (2000: 10) observes that they “are *imperfectiva tantum* (all of which are stative verbs), which have no pv partners, e.g. *znat'* ‘know’, *nenavidet'* ‘hate’, *otsutstvovat'* ‘be absent’, etc.”.¹⁶ The perfectivizing patterns of statives here look like the coercion patterns of English and suggest that Russian statives are coerced into an eventive interpretation as the complement to phase verbs as well. This is a clean parallel. However, it is not entirely clear that Dickey’s observation goes through, since two of these verbs seem to allow the presence of a perfectivizing prefix, illustrated in (24).

- (24) a. vz-vesit'
 b. u-znat'

vz-vesit' takes on more of an activity interpretation in the sense of using a scale to determine the weight of an object. *u-znat'* can mean either “get to know” or “realize”. So, just like the statives in (23), these statives, through the addition of the prefix, take on more of an eventive interpretation. Nevertheless, as we saw in section 3 above, they cannot appear as complements of phase verbs.

What these range of facts seem to show is that coercibility of aspectual meaning is not always consistent across constructions, something that Zucchi (1998) has already noted. I have nothing insightful to add to the discussion variability in coercibility as a function of context. Nevertheless, independent of the explanation of what determines coercibility, the statives that cannot appear as complements of phase verbs cannot do so, because of their stative status. In this respect, we find the same patterns as in English.

What about lexically prefixed verbs and GFI imperfectives? If they are achievements, as I have suggested, then we might expect that on an iterative interpretation they can be complements. However, first note that like some English achievements, it seems that no lexically prefixed verb allows for a bare iterative interpretation. This is illustrated in (25).

- (25) a. #Vanja zaper vorota mesjac

¹⁶ Filip (1999: 201) also notes for Czech that “Static state verbs have no corresponding derived perfective counterparts at all.”

- Vanja lock.PRF.PST gate month
 “Vanja locked the gate for a month”
- b. #Mary pročitala knihu mesjac.
 Mary read-perf. book month
 “Mary read the book for a month.”
- c. #Ferner pritasčil brevno v ambar (v tečeniji) časa
 farmer dragged-perf. log into barn (during) hour
 “The farmer dragged the log into the barn for an hour.”

No bare iterative interpretation is available for lexically prefixed verbs. I take this to mean that a potential iterative interpretation under phase verbs is ruled out as well. What about GFI imperfectives? Imperfectives are known to allow an iterative interpretation. It is not clear, though that on an iterative interpretation a general factual interpretation is available. Thus, a bare iterative interpretation of lexically prefixed perfectives and GFI imperfectives seems not to be available. This seems to preclude an iterative interpretation as phase verbs complements as well.

If lexically prefixed perfectives and GFI imperfectives are achievements, then we find the same exact complementation conditions in English and Russian. Note that if at least some lexically prefixed verbs or GFI imperfectives were accomplishment we might expect that some could appear as phase verb complements. This is not the case. Consequently, given the parallels with English with respect to phase verb complementation I conclude that lexically prefixed verbs and GFI imperfectives are achievements. This conclusion makes explicit a prominent intuition about perfectives noted in the following quote from Filip (1999: 185 n. 16) notes the following:

Dahl (1985), for example gives the following characterization of the perfective aspect along these lines: “A PFV verb will typically denote a single event, seen as an unanalyzed whole...More often than not, the event will be punctual or, at least, it will be seen as a single transition from one state to its opposite, the duration of which can be disregarded (p.13). Comrie (1976:16) sums up the ‘totality’ characterization of the perfective in the following way: “...perfectivity indicates the view of a situation as a single whole, without distinction of the various separate phases that make up that situation...”

5. An intuition of duration and superlexical *po* & *pro*

5.1. An intuition of duration

Although I have concluded that lexically prefixed verbs are achievements, which by definition are punctual, there does seem to be a sense of duration in sentences like (26), which has a lexical prefix.

- (26) *Ja vypil butylku vina za čas.*
 I drank-perf. a-bottle of-wine in hour.
 “I drank a bottle of wine in an hour.”

The interpretation here is that at the end of an hour a bottle of wine was drunk. The duration expressed by this predicate seems apparent. Nevertheless, I would like to suggest that although there is a sense of duration, it is not linguistically encoded, it just reflects our knowledge of how the real world unfolds in time. Consider the following sentence in English.

(27) John had a bottle of wine (at lunch today).

From what we know about drinking a bottle of wine, it takes time. So, there is a sense of duration in (27). However, the predicate in (27) is an achievement, as indicated by the incompatibility with *begin*, noted above in section 3, and by the unambiguous counterfactual interpretation elicited by *almost*, illustrated below in (28).

(28) John almost had a bottle of wine.

(28) can only mean that John did not begin to have a bottle of wine (see Dowty 1979, and Rapp & von Stechow 1999). The sense of duration comes from our knowledge of the real world. Consider two more examples below in (29) and (30).

(29) a. John arrived in an hour.
b. #John began to arrive.
c. John almost arrived.

(30) a. John took a trip.
b. #John began to take a trip.
c. John almost took a trip.

The events denoted by *arrive* and *take a trip* often correspond to stretches of time in the real world. Nevertheless, this is a fact about the real world that is not linguistically encoded. The predicates in (29) and (30) are achievements, and are linguistically encoded as punctual, lacking extension in time, as indicated by their behavior with respect to the aspectual tests there.

5.2 Superlexical prefix *po* and *pro*

I have claimed that lexically prefixed verbs and GFI imperfectives are achievements, and that this is the source of their inability to appear as complements to phase verbs. This account, however, cannot explain why verbs made perfective by superlexical *po* or *pro* cannot appear as complements of phase verbs, illustrated in (31a) (from Gehrke 2008: 153), given that they do not make the predicate telic, illustrated in (31b) (from Borik 2002: 55).¹⁷

(31) a. *On načal **pro**-spat' dva dnja.
he began.PF PRO-sleep.PF two days
(intended meaning: “He began to sleep for two days.”)

¹⁷ I have simplified the gloss in Borik’s (2002) example.

- b. Petja (pro)sidel v tjur'me pjat' let/*za pjat' let.
 Peter (PF-)sit in prison five years/*in five years
 "Peter was in prison for five years."

Although these prefixes do not telicize, and consequently do not create achievements, there is an explanation that relies on the property argued to play a crucial role in phase verb complementation: duration. It has been noted that both *po* and *pro* "bring about some sense of duration" (Borik 2002: 54). This is the general assumption, made apparent in the following quote from Žaucer (2009: 150):

(Forsyth 1970: 24 says that *po*-verbs "suggest a short period of time", *pro*-verbs "a longer period", Schoorlemmer 1995: 100 dubs *po*- with "short while" and *pro*- with "longer while", Filip 1999: 203 with "a relatively short period of time" and "a relatively long period of time", Flier 1985: 41 speaks of *po*- and *pro*-verbs with "short and long periods of time, respectively").

I claim that it is this contribution of duration that precludes their being a complement to phase verbs. Observe that when an explicit bare durative adverbial occurs with the predicate under a phase verb, contributing duration, the result is ungrammaticality.

- (32) a. #Maria perestala/načala pit' pivo čas.
 Maria stopped/began drink.INF.IMP beer hour
 #"Maria stopped/began drinking beer an hour."
- b. #Maria perestala/načala čitat' knigu čas.
 Maria stopped/began read.INF.IMP book hour.
 #"Maria stopped/began reading the/a book an hour."

As the English translations also indicate bare duratives with English phase verbs are incompatible as well.¹⁸ The exact reason why the contribution of duration to the complement predicate affects complementation patterns is still lacking and must be left for future research. Nevertheless, these facts strongly suggest that duration is a property that plays a crucial role in the complementation patterns of phase verbs.

6. Variation and the non-universality of accomplishments

Why should Russian telic predicates all be achievements? To state the question differently: Why shouldn't there be any accomplishments? I will suggest here that this is due to a more abstract parameter that regulates the expression of ES in a language.

Thráinsson (1996) forms a *Limited Diversity Hypothesis*, in which languages differ with respect to the functional projections available in the

¹⁸ Note that the *for*-adverbial is fine: *John began to study for an hour*. I assume that this is related to the *for*-adverbial identifying a stretch of the assertion/reference time and not the run-time of the event itself. See Morzycki (2004) for other differences between these adverbs.

inventory of functional projections of the language. More recently, Bošković (2008) and Bošković & Gajewski (to appear) argue that languages without articles differ from languages with articles in that the former lack a DP layer while the latter have a DP layer. They discuss a range of differences between these two sets of languages which they argue can be explained via the presence vs. absence of DP. One such difference is of particular interest to the present discussion. They claim that the absence of DP in article-less languages accounts for the lack of negative raising predicates. Simplifying significantly, without the definite article, a language cannot “construct a world-sum denoting predicate”, which is a crucial aspect in their analysis of the formation of negative raising predicates based on the *excluded middle presumption*. The main point here is that there is a direct relation between the presence vs. absence of a DP and semantic interpretation. Note that this form of variation differs crucially from what I will refer to here as *silent variation*, exemplified in Sigurðsson (2004) and Kayne (2005). In *silent variation* approaches, the underlying syntax and semantics of two constructions in different languages are crucially assumed to be the same. The variation arises in the pronunciation or not of different portions of the shared underlying structure. Some portions are silent. The crucial difference between variation in terms of the presence vs. absence of structure and silent variation is in the semantic effect. In silent variation approaches, a fundamental assumption is that the same interpretation is involved. In contrast, in approaches in terms of the presence vs. absence of structure, differences of interpretation arise (cf. Fukui 1995). I would like to suggest here that the lack of accomplishments in Russian and their presence in English is tied to a underlying structural difference in the verb phrase, previously argued to exist in MacDonald (2008, forthcoming). MacDonald argues that English (eventives) have an aspectual projection, AspP, between vP and VP, while Russian lacks it.¹⁹ It is argued that there are three properties dependent on AspP: 1. The ability of an NP to affect the aspectual interpretation of the predicate, first noted by Verkuyl (1972); 2. A particular multiple events interpretation of bare plurals; and 3. The ability of a (goal) P to turn an atelic predicate into a telic predicate. Interestingly, Russian lacks these three properties. I suggest here that the presence vs. absence of AspP is the reflex of a more abstract ES parameter, which regulates the range of aspectual predicate classes a language has. The lack of AspP in Russian is directly tied to its inability to form accomplishment predicates; consequently, all telic predicates surface as achievements. English, in contrast has AspP, and consequently it can form accomplishment predicates. As an initial intuition couched in the present discussion, it would seem that the relevant semantic property dependent on AspP, such that when not available in a language, accomplishments are not available, and when available, accomplishments are available, is duration.

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¹⁹ See also MacDonald & Markova (forthcoming) for a discussion of Bulgarian and English along these same lines.

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