

Perfective accomplishments don't always denote (maximal) event culmination, even in Russian: Evidence from psycholinguistics

Natasha Kasher & Aviya Hacoheh, Ben-Gurion University of the Negev

Overview It is a widely established view in the event-semantics literature that perfective (PFV) telic accomplishments, comprised of a dynamic verb and a quantized incremental theme argument (e.g., Krifka 1989), denote culmination (Parsons 1990). It has also been increasingly recognized over the past two decades that such constructions demonstrate varying degrees of culmination requirements crosslinguistically (see Martin 2019 for a detailed list). However, while PFV non-culminating accomplishments have been found in a variety of languages and language families, the Slavic PFV has been consistently argued throughout the theoretical and psycholinguistic literature to enforce strict culmination requirements on accomplishments within its scope, such that non-culminating interpretations are entirely disallowed for such forms (e.g., Filip 2017), and PFV accomplishments followed by a cancellation phrase (PFV+CNCL) result in a contradiction. This is illustrated by the contrast between Hindi (1) and Russian (2):

- (1) maya-ne biskuT-ko khaa-yaa par us-e puuraa nahiin khaa-yaa
 Maya.ERG cookie.ACC eat.PERF but it.ACC full not eat.PERF
 'Maya ate a cookie (but not completely).' (from Arunachalam & Kothari 2011)
- (2) Masha s'ela prjanik (#no ne ves').
 Masha. PFV.ate.SG.F gingerbread.cookie.ACC (#but not all).
 'Masha ate a/the gingerbread cookie (#but not all of it).'

We report results from a gradable acceptability judgment task, which challenges this generally assumed typology. We show that while Russian PFV accomplishments do carry culmination requirements, they are not stricter than what has been reported for other languages. Moreover, our data reveal high acceptability ratings for (PFV+CNCL), indicating that the culmination inference of the PFV accomplishment is defeasible, even in Russian. We discuss how these results are in line with Kearns' (2007) distinction between the *standard telos* and the *maximal telos*, and what they suggest with respect to the semantics and pragmatics of telic accomplishments.

Methods Experimental items included 8 accomplishment predicates, comprised of an incremental transitive verb + a singular count direct object. Each base accomplishment appeared in three aspectual frames: (1) perfective (PFV); (2) perfective followed by a cancellation phrase (PFV+CNCL); (3) imperfective (IMP), as illustrated in the table for 'draw a/the star':

Condition	Example
1. PFV	<i>Malčik narisoval zvezdu.</i> Boy PFV.drew star.ACC ('The boy drew a/the star.')
2. PFV+CNCL	<i>Malčik narisoval zvezdu, no odnovo lučika ne xvataet.</i> Boy PFV.drew star.ACC but one ray not sufficient (('The boy drew a/the star, but one point is missing.')
3. IMP	<i>Malčik risoval zvezdu.</i> Boy IMP.drew star.ACC ('The boy was drawing a/the star.')

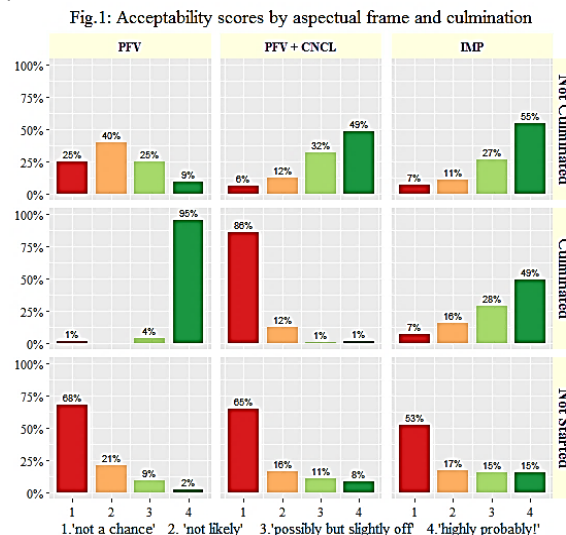
The visual stimuli were short animated video clips, depicting a human character performing the action denoted by the 8 accomplishments. In the 8 test items, the event was shown as ceasing short before reaching culmination, as illustrated for 'draw a/the star'. In the control items, 5 of the videos depicted culminated events and 3 portrayed scenarios where the event denoted by the predicate doesn't even begin. The visual stimuli were presented in one pseudo-randomized order across participants, while the verbal



stimuli were fully randomized for each clip and for each participant. The experiment was conducted using Qualtrics.

33 native Russian adults were instructed to determine how likely it is for a Russian speaker to use each of the five accompanying sentences upon watching the clip. Participants noted their judgments on a 4-point forced-choice scale, with the following labels: 1=*ni malejšego šansa* ('not a chance'); 2=*vrjad li* ('not likely'), 3=*vozmožno, xotja čto-to ne tak* ('possible though slightly off'); 4= *vpolne verojatno!* ('highly probably').

Results & analysis: As can be seen in Figure 1, non-culminating PFV items were scored as 3-4 34% of the time, and items in the PFV+CNCL frame received ratings of 3-4 81% of the time, with 4-scores as high as 49%. This latter finding is particularly surprising given the assumed degradation introduced by the supposed mismatch within the verbal stimuli, as illustrated by (2). Finally, IMP items received rating of 3-4 82%, as expected. An analysis of the non-culminated items using a Friedman's Chi-Square revealed a main effect of aspectual frame ($p < 0.001$). This effect, though, was entirely due to the distribution of the PFV, as confirmed by a Wilcoxon Signed-Rank test showing no significant difference between the PFV+CNCL and the IMP ($p=0.470$).



Discussion Our study demonstrates that while Russian PFV telic accomplishments do carry culmination requirements, these inferences are not stricter in Russian than what has been reported for other languages (e.g., Arunachalam & Kothari 2011). Hence, the Russian PFV is not exceptional in terms of the culmination requirements it imposes on telic accomplishments. Moreover, our data reveal that even in Russian, PFV telic accomplishments may in fact be followed by a cancellation phrase without creating a contradiction. We argue that what's being cancelled here is not the culmination inference *per se*, but rather, the **maximal** interpretation of Culmination (cf. Martin 2019, Martin & Demirdache 2020). Our data are in line with Kearns' (2007) proposal that PFV accomplishments only entail the **standard telos**: the onset of a specified endstate; and further, that while the standard telos is part of the **semantics** of PFV telic accomplishments, the maximal telos is only **implicated** by such predicates, and may therefore be cancelled. Crucially, the events depicted in the visual stimuli did not end at some early, arbitrary point; they were all completed up to approximately 80%. This suggests that this range (between approx. 80% completion and 100%) may reflect the margin between Kearns' standard telos and her maximal telos. And further, that any point within this range qualifies as Culmination. Such an approach recognizes the critical role of pragmatics in licensing the maximal interpretation of PFV telic accomplishments, while not abandoning Vendler's original claim that culmination is an integral part of the semantic denotation of accomplishments.

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