

Predicting the Grammatical Aspect Category in Russian

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1 Introduction

- The main goal of this talk is to argue that in order to make correct predictions about the aspect of a Russian verb that contains multiple affixes the derivational history must be taken into account. The key empirical evidence comes from morphologically complex verbs that are traditionally treated as biaspectual and whose variable behavior with respect to grammatical aspect poses challenges to both traditional and recent syntactic approaches.

2 Previous Work

- Recent syntactic approaches to Russian complex verbs ([Ramchand, 2004], [Romanova, 2004], [Svenonius, 2004b], [Tatevosov, 2007] and [Kiseleva et al., 2009], among others) all agree on the following assumptions about their properties:
 - the internal structure of complex verbs is represented by means of syntactic trees;
 - different affixes are distinguished by their different structural positions;
 - the (im)perfective aspect of a given complex verb is determined by the properties of the highest affix in a structure;
 - prefixes are generally taken to fall into two main classes [Babko-Malaya, 1999]:
 - * lexical (inner) prefixes originating inside VP,
 - * superlexical (outer) prefixes originating outside VP,
 - * lexical and superlexical prefixes are separated by Asp in the syntactic structure;
 - Asp can be overtly realized by the imperfective suffix (see e.g., [Svenonius, 2004a])
- The above assumptions lead to the following predictions about the grammatical aspect of a given complex verb:
 - if a verb contains a prefix and no imperfective suffix, it is perfective (see ex. (1-a));
 - if a verb contains a lexical prefix and the imperfective suffix, it is imperfective (see ex. (1-b));

- if a verb contains a superlexical prefix and the imperfective suffix, it is perfective (see ex. (1-c)).

- (1) a. *zapisat*^{PF}
 ZA.write.inf
 to write down
- b. *zapisyvat*^{IPF}
 ZA.write.IMPERF.inf
 to be writing down/to write down
- c. *nazapisyvat*^{PF}
 NA.ZA.write.IMPERF.inf
 to write down a lot

- Various refinements on these ideas can also be found.
 - [Tatevosov, 2007] argues for the existence of intermediate prefixes, in addition to lexical and superlexical ones, which leads to the following additional rule:
 - * if a verb contains an intermediate prefix and the imperfective suffix, it is imperfective.
 - [Kiseleva et al., 2009] argues for a three-way distinction among superlexical prefixes:
 1. The left periphery prefix that occupies the left periphery of the verbal structure:
 - * distributional *po-* (*pobrosat* 'to throw for some time/several times').
 2. Selectionally limited prefixes that can be added only to a formally imperfective verb:
 - * delimitative *po-* (*posidet* 'to sit for some time');
 - * cumulative *na-* (*navarit* 'to cook a considerable amount of something');
 - * distributional *pere-* (*perelovit X* 'to catch all of X');
 - * inchoative *za-* (*zabegat* 'to start running about').
 3. Positionally limited prefixes that can be added only before the secondary imperfective suffix *-yva-/-iva-* and end up in the same structural position as intermediate prefixes in [Tatevosov, 2007]:
 - * completive *do-* (*dodelat* 'to finish doing');
 - * repetitive *pere-* (*perepisat* 'to rewrite');
 - * attenuative *pod-* (*podustat* 'to become a little bit tired').
- Given that the structural position for each prefix use is fixed with respect to its position in a tree, there is exactly one syntactic structure allowable for a given complex verb.
- In addition, [Kiseleva et al., 2009] postulates the existence of an exceptional group of selectionally limited superlexical prefix uses that can assume a position "above" or "below" the imperfective suffix. However, this exception does not affect the overall prediction that there is a unique syntactic structure assigned to each given complex verb.
- Advantage of syntactic approaches: The notion of a structural position is helpful in motivating at least certain facts about the formation of complex verbs (see ex.(1-a)-(1-c)).

- Problem for syntactic approaches: They exclude the existence of biaspectual affixed verbs. The reason for this is that the structural assumptions that are postulated enforce a given complex verb to be unambiguously assigned to either the perfective or the imperfective aspect category.

3 Biaspectual Verbs

- Perfective verbs are commonly distinguished from imperfectives by the following negative tests:
 - (2) (i) perfective verbs do not get an "ongoing" interpretation in non-past tense;
 - (ii) perfective verbs cannot be used as complements of phrasal verbs (e.g., *nachat'* 'to begin');
 - (iii) perfective verbs cannot form present participles.

While these tests clearly delimit perfective verbs, they cannot distinguish between imperfective from biaspectual verbs.

- The existence of Russian affixed biaspectual verbs cannot be denied, as is clearly evident from corpus-based studies (see e.g., [Borik and Janssen, 2012]). They constitute an open class of lexical items. There are subgroups that follow productive patterns.
- Let us examine one such group: namely, the biaspectual verbs that are formed with the formant *-iva-/-yva-* and two or more prefixes, where the outermost is the completive *do-*:

(3) *do_{COM}-PREF⁺-ROOT-yva-t'*

Some examples are:

- *do-za-pis-yva-t'* 'to finish writing down',
- *do-pere-pis-yva-t'* 'to finish rewriting/copying',
- *do-pere-za-pis-yva-t'* 'to finish writing down again',
- *do-vy-sh-iva-t'* 'to finish embroidering'.

- Surprisingly, the syntactic approaches to derivationally complex verbs in Russian disagree in their predictions about their aspectual category status: E.g.,
 - [Ramchand, 2004] predicts that they must be perfective;
 - [Tatevosov, 2007] claims that they can only be imperfective, on both theoretical and intuitive grounds.
- However, both these accounts turn out to be empirically invalid, because depending on the context, these verbs behave either as perfective or imperfective.

(4) a. V dannyj moment doperezapisvaju esche 2 pesni.
In given moment DO.PERE.write.down.IMPERF also 2 songs.
'I'm currently finishing rerecording two more songs.' (<http://doom-metal.ru>)

- b. Ponyatno, chto mozhno doperezapisyvat', potom nachat' vesti
 Clear, that possible DO.PERE.write.down.IMPERF, afterwards start lead
 uzhe novyh.
 already new.
 'Clear, that it is possible to finish rewriting down and only afterwards start to
 maintain the new ones.' (forum.mista.ru)

In (4-a) the verb *doperezapisyvat'* behaves like an imperfective verb, because it has a progressive interpretation triggered by the phrase *v dannyj moment* 'currently' (see test (i)), while in (4-b) it behaves like a perfective verb, because of the narration relation between it and the perfective verb *nachat'* 'to start'.

- *Narration*(α, β): The event described in β is a consequence of (but not strictly speaking caused by) the event described in α . If *Narration* (α, β) holds, and α and β describe eventualities e_1 and e_2 respectively, then e_1 occurs before e_2 . [Lascares and Asher, 1993]
- According to the standard tests given above (2), problematic verbs with two or more prefixes like *dozapisyvat*, which arguably are biaspectual, pattern with unambiguously imperfective verbs with one prefix and the imperfective suffix like *dopisyvat*, because what these tests are designed to do is to exclude perfective verbs.
- Therefore, we need another method of checking whether these verbs actually exhibit the same properties in all the relevant respects.

4 Positive tests for perfectivity

- *Narration relation*: a good way of testing whether a verb is perfective is to identify contexts that only allow perfectives and contexts in which perfectives are excluded. Such contexts are those where a narration relation is established between the verb in question and a clearly perfective/imperfective verb, as in (5) and (6):

(5) a. #Ja dopisyvaju^{IPF} text i pojdu^{PF} domoj.

I DO.write text and go.fut home

b. Ja dopisyvaju^{IPF} text i idu^{IPF} domoj.

I DO.write text and go.pres home

I plan to finish writing the text and go home.

(6) a. Ja dozapisyvaju^{PF} disk i pojdu^{PF} domoj.

I DO.write.down CD and go.fut home

I will finish recording the CD and go home.

b. Ja dozapisyvaju^{IMF} disk i idu^{IPF} domoj.

I DO.write.down CD and go.pres home

I plan to finish recording the CD and go home.

- *Compatibility with temporal adverbials*: verbs with just one prefix and the imperfective suffix like *dopisyvaju* are incompatible with time frame adverbials *za NP* 'in NP' ((7-a) is ungrammatical), whereas verbs like *dozapisyvaju* that have the structure given in (3)

are perfectly acceptable with either time frame adverbials or durative adverbials *NP[ACC]* 'for NP' (both (8-a) and (8-b) are fine).

- (7) a. *Ja dopisyvaju^{IPF} pesnju za dva chasa.
 I DO.write song in two hours
 b. Ja dopisyvaju^{IPF} pesnju uzhe dva chasa.
 I DO.write song already two hours
 I'm finishing writing the song for two hours already.
- (8) a. Ja dozapisyvaju^{PF} pesnju za dva chasa.
 I DO.write.down song in two hours
 I will finish recording the song in two hours.
 b. Ja dozapisyvaju^{IPF} pesnju uzhe dva chasa.
 I DO.write.down song already two hours
 I'm finishing recording the song for two hours already.

5 Proposal: Derivational history

- [Karcevski, 1927] suggests that "La valeur aspective d'un verbe dépend de la place qu'il occupe dans la chaîne de la dérivation déverbative." [The aspectual value of a verb depends on its place in the chain of verbal derivation]. Our analysis capitalizes on this old intuition, albeit making it more precise in one particular point: the derivation chain does not have to be unique for a given verb.
- The difference between verbs like *dopisyvat'* and *dozapisyvat'* lies in their derivational histories. There is only one derivational history for *dopisyvat'*, as shown in (9)¹:

- (9) a. pisat'^{IPF} → do-pisat'^{PF} → do-pis-yva-t'^{IPF}
 to write → to finish writing → to finish/be finishing writing
 b. pisat'^{IPF} → pis-yva-t'^{IPF} ↗ do-pis-yva-t'
 to write → to write repeatedly ↗ to finish/be finishing writing

- If two prefixes are present on the verb, two different derivational histories become available:

- (10)a. pisat'^{IPF} → za-pisat'^{PF} → za-pis-yva-t'^{IPF} → do-za-pis-yva-t'^{PF}
 to write → to write down → to be writing down → to finish writing down
 imperfective suffix < *do-*
 b. pisat'^{IPF} → za-pisat'^{PF} → do-za-pisat'^{PF} →
 to write → to write down → to finish writing down →
 do-za-pis-yva-t'^{IPF}
 to be finishing writing down
do- < imperfective suffix

¹The verb *pisyvati'* is a generic verb with approximately the meaning of 'to write repeatedly, often, sporadically', which is not the meaning of the stem to which the completive prefix *do-* is applied to yield the verb *dopisyvat'*. In Russian, there are only a few generic verbs of this type, and they are archaic.

- This follows from two general patterns governing the formation of Russian verbs:
 - the output of prefixation is perfective (there are some exceptions, as the behaviour of the iterative prefix *pere-* in (11) shows);
 - adding the imperfectivizing suffix to a perfective verb yields an imperfective verb.

Hence, *dozapisyvat'* ends up perfective, if derived in the way shown in (10-a), and imperfective, if derived in the way in (10-b).

- It should be noted that for a verb having two derivational histories implies that it is ambiguous: each derivational history yields exactly one grammatical aspect for a whole verb, either perfective or imperfective. This also allows for a situation in which two distinct derivational histories (structures) assigned to a single verb yield the same grammatical aspect, as in (11):

- (11)a. *brat'*^{IPF} → *vy-brat'*^{PF} → *vy-bir-a-t'*^{IPF} → *pere-vy-bir-a-t'*^{IPF}
 to take → to select → to be selecting/select → to be selecting/select again
 imperfective suffix < *pere-*
- b. *brat'*^{IPF} → *vy-brat'*^{PF} → *pere-vy-brat'*^{PF} → *pere-vy-bir-a-t'*^{IPF}
 to take → to select → to reselect → to be reselecting/reselect
pere- < imperfective suffix

- Behavior of *pere-*:
 - the iterative prefix *pere-* requires that its input has delimited events in its denotation; if the verb stem denotes activities expressed by simplex imperfective verbs, it entails no delimitation, and therefore it must first shift into an event (i.e., in the sense of [Bach, 1981]) interpretation so that its denotation can serve as an input of the iterative operator expressed by *pere-*.
- The described behavior leads to the following predictions:
 - prefixation by iterative *pere-* leads to a change of aspect for a simplex imperfective verb;
 - it does not affect the aspect for all the other verbs.
- So in (11) two derivational histories yield the same aspect and the resulting verb is only structurally ambiguous, whereas in (10), the verb is also aspectually ambiguous.

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