

A Competition-based Account of Locative Modification in Russian

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In this paper we discuss some new data on the distribution of locative modifiers in Russian, and argue that a) locative PPs are able to modify the result sub-event of causative predicates and b) the distribution of locative PPs is constrained by a competition with their directional counterparts.

	location (AT)	goal (TO)
ON	<i>na</i> (prep)	<i>na</i> (acc)
IN	<i>v</i> (prep)	<i>v</i> (acc)
UNDER	<i>pod</i> (instr)	<i>pod</i> (acc)
BEHIND	<i>za</i> (instr)	<i>za</i> (acc)
IN FRONT OF	<i>pered</i> (instr)	*
ABOVE	<i>nad</i> (instr)	*
BY	<i>u</i> (gen)	*

Table 1. Locative and Directional prepositions.

Table 1 presents an overview of the system of locative/directional prepositions in Russian. Locative prepositions assign prepositional (*v* ‘in’, *na* ‘on’), instrumental (*pod* ‘under’, *za* ‘behind’, *pered* ‘in front of’, *nad* ‘above’) or genitive case (*u* ‘by’) to their complement DPs. All locative PPs combine with stative verbs (ex. 1a), but cannot combine with motion verbs to denote the final location of a participant (1b).

- (1) a. *Kniga ležit na polk-e / u okn-a.*
 book lie on shelf-PRP / in table-GEN
 ‘The book is lying on the shelf / by the window.’
- b. **On pribežal v dom-e / u doma-a.*
 he run.here in house-PRP / by house-GEN
 Int.: ‘He ran into the house / to near the house.’

Directional prepositions assign accusative case, and have the opposite distribution (ex. 2a-b).

- (2) a. **Kniga ležit na polk-u / v stol.*
 book lie on shelf-ACC / in table-ACC
 Int.: ‘The book is lying on the shelf / in the table.’
- b. *On pribežal v dom / na kryš-u.*
 he run.here in house-ACC / on roof-ACC
 ‘He ran into the house / onto the roof.’

As is evident from Table 1, a sub-set of locative prepositions have directional counterparts which differ only with respect to their case-assigning properties (*na*, *v*, *pod*, *za*). We will refer to them as *paired* locatives. Conversely, we will refer to the prepositions *pered*, *nad* and *u* as *unpaired*. Paired and unpaired locatives have distinct distributions, a fact which as far as we know has not been previously noticed in the literature. Specifically, unpaired locatives are able to combine with causative change-of-position verbs such as *položit* ‘put (lying down)’, *povesit* ‘hang up’, *postavit* ‘put (standing up)’, etc., in which case they specify the end location of the theme (ex. 3a). Paired locative prepositions are generally banned in such contexts, and must be replaced with directional PPs (ex. 3b).

- (3) a. *Ona položila knigu u okn-a / pered stol-om.*
 She put book by window-GEN / in.front.of table-INSTR
 ‘She put the book by the window / in front of the table.’
- b. *Ona položila knigu v *korobk-e / korobk-u.*
 She put book in box-PREP / box-ACC
 ‘She put the book in the box.’

Crucially, all the verbs in this class lexically specify the result state of the theme object (i.e. whether it is standing, lying, sitting, or hanging). Dislocation verbs that do not specify a result state (e.g. *run*, *throw*) are incompatible with both paired and unpaired locatives (cf. ex. 1b). We conclude that unpaired locatives are licensed if the verb specifies a result sub-event.

In our analysis of examples (3a-b) we assume a syntactic decomposition of verbs into sub-events (Hale and Keyser, 1993; Ritter and Rosen, 1998; Travis, 2000 a.o.). Specifically, we follow that proposal in Ramchand 2008, and assume that causative change-of-position verbs lexicalize a series of syntactic heads, corresponding to the Initiation, Process and Result sub-event (4). Then, locative modifiers can attach to the Res’P projection, specifying the location of theme in the result state (cf. von Stechow 1996 for a parallel treatment of restitutive *wieder* ‘again’ in German). Verbs such as *bežat* ‘run’ and *brosat* ‘throw’ do not project a Res’P, and thus locative PPs cannot combine with these verbs to denote the final location of a participant. On the other hand, directional modifiers as in (2b) and (3b) attach to the projection

corresponding to the dynamic sub-event (Proc'P), specifying the spatial path of the figure argument in that event.

(4) **InitP** (cause) – **ProcP** (process) – **ResP** (result state)

We propose to account for the contrast between paired and unpaired locatives in (3a-b) by invoking the notion of competition between *presupposition alternatives* and the principle of *Maximize Presupposition* (cf. Heim 1991, 2005; Sauerland 2003, 2008; Schlenker 2003; Percus 2006, a.o.). Specifically, we propose that directional prepositions introduce a presuppositional restriction on the event predicate that they combine with (i.e. ||Proc'P||) requiring it to involve a change of location of the event participant, and assert that the end location of the participant in that event stands in a certain spatial relation to the ground object:

(5) $\|in_{dir}\| = \lambda x \lambda P_{e(n)}. \lambda y. \lambda e:$

Presupposition: $\exists e', e''. e' < e \ \& \ e'' < e \ \& \ \mathbf{initial}(e')(e) \ \& \ \mathbf{final}(e'')(e) \ \& \ \mathit{Loc}(y)(e') \neq \mathit{Loc}(y)(e'')$

Assertion: $P(y)(e) \ \& \ \exists e'. e' < e \ \& \ \mathbf{final}(e')(e) \ \& \ \mathit{In}(y)(x)(e')$

Paired locative/directional prepositions are taken to be *lexical alternatives*, which generate *presuppositional alternatives* in the following way (cf. Schlenker 2012): for sentence S, $\text{Alt}(S) = \{S': S' \text{ is obtained from S by replacing one or several lexical items in S with some of their alternatives}\}$. The principle *Maximize Presupposition* then compares presuppositional alternatives whose assertive content is contextually equivalent, and states that the alternative with the strongest presuppositional content must be chosen. The assertive content of adding a locative PP as a modifier of ResP in (3b) is contextually equivalent to adding the corresponding directional PP as a modifier of ProcP: in both cases what is asserted is that in the final stage of the 'putting' event, the theme argument is located in the ground object (i.e. the box). However, given that the directional preposition has a richer presuppositional content than the locative one, *Maximize Presupposition* blocks the use of a locative PP modifier.

This analysis is further supported by the peculiar distribution of PPs headed by the preposition *pod* 'under'. Locative PPs headed by *pod* specify that the figure object is located below the ground object, denoted by the complement DP. Their directional counterparts, on the other hand, have a more restrictive semantics, specifying that that the ground object must *cover* the figure object. Our analysis predicts that in change-of-position contexts that imply that the theme object ends up covered by the ground object, locative *pod*-PPs as Res'P modifiers will be blocked, since their use would be contextually equivalent to the insertion of a directional *pod*-PP as a modifier of the process sub-event. On the other hand, we predict that in contexts where the theme object ends up below the ground object, but not covered by it, modification by directional *pod*-PPs will be unavailable, and locative *pod*-PPs will be licensed. This prediction is indeed borne out, as the contrast in (6a-b) shows.

- (6) a. Rebjonok položil risunok pod odejal-o / *odejal-om b. Rebjonok povesil risunok pod kartin-uj / *kartin-u
 child put picture under blanket-ACC / blanket-INSTR child put picture under picture-INSTR/picture-ACC
 'The child put a picture under the blanket.' 'The child hung up a picture under the painting.'

Finally, we discuss a number of implications of the proposed analysis. First, it suggests, contra Ramchand (2004), Svenonius (2004), Tatevosov (2018), that lexical prefixes **do not** introduce a result state into the syntactic composition of motion verbs, given that unpaired locatives are incompatible with motion verbs even if the latter carry a lexical prefix (cf. ex. 1b). Instead we propose that such prefixes specify the path associated with the motion event, in parallel with directional modifiers. Second, our analysis entails that the application of *Maximize Presupposition* is not sensitive to certain types of syntactic distinctions between the presuppositional alternatives.

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U. 2008. Implicated presuppositions. **Schlenker, P. 2012.** Maximize presupposition and Gricean reasoning. **Stechow, A. von. 1996.** The different readings of *wieder* “again”: A structural account. **Svenonius, P. 2004.** Slavic prefixes inside and outside VP. **Tatevosov, S. 2018.** On the aspectual architecture of Russian. **Travis, L. 2000.** Event structure in syntax.