

- (6) a. *nesti cvety*
 carry flowers-acc
 ‘to carry flowers’
 b. *na-nesti cvetov*
 CUM-carry flowers-gen
 ‘to carry a lot of flowers’

There is a homomorphism between prefixes and prepositions, compare (7) and (8). And all SPs (9) can function as a LP (7) but not all LPs can function as a SP. Semantic properties of prefixes and prepositions are very similar as well, consider (10). And both types of prefixes can be combined with a homophonous preposition, see SP in (11a) and LP in (11b).

(7) prefixes: do-, iz-, na-, nad-, ot-, pere-, po-, pod-, pri-, pro-, s-, v-, vy-, za-

(8) prepositions: do, iz, na, nad, ot, po, pod, pri, pro, s, v, za

(9) SP prefixes: do-, iz-, na-, ot-, pere-, po-, pod-, pri-, pro-, za-

- (10) a. *s-prygnut’*
 from-jump
 ‘to jump down’
 b. *s kryši*
 from roof-gen
 ‘from the roof’

- (11) a. *On na-nes na čerdak mnogo sena.*
 he CUM-carried on attic-acc a lot of hay
 ‘He brought a lot of hay onto the attic.’

- b. *Popugaj v-letel v komnatu.*
 parrot in-flew in room-acc
 ‘The parrot flew into the room.’

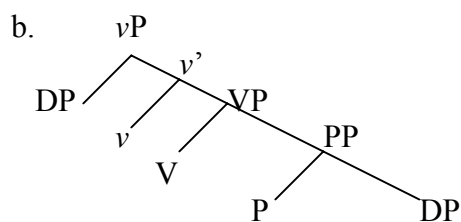
And there are semantic parallelisms between prepositions and prefixes. The first parallelism relates to definiteness. Prefixes make verbs perfective and perfectivity can be treated as definiteness of reference time (Ramchand 2004). It is known that PPs and arguments with a non-structural case are islands for extraction and that there is a link between non-structural cases and definiteness or specificity, see e.g. Starke (2001). The second parallelism relates to localization. Prefixes attached to a verb localize reference time wrt. event time. And prepositions as two-place predicates localize the first argument wrt. the second argument.

2. The proposal

2.1. Prefixes and prepositions are identical elements

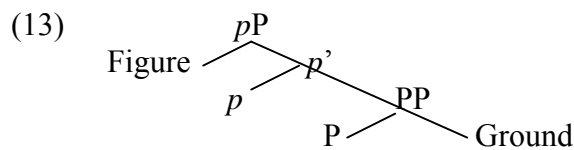
Given the data, I propose that prefixes – of both types - and prepositions are identical elements, specifically, two spelled out copies of one P element.¹ The standard argument structure with a directional PP, as e.g. in (12a), looks like (12b).

- (12) a. *On v-exal v Moskvu*
 he in-drove in Moscow-acc
 ‘He drove to Moscow.’



¹ For other arguments supporting the claim that prefixes and prepositions are identical elements and that SPs can be merged in the same positions as LPs, see Biskup (to appear).

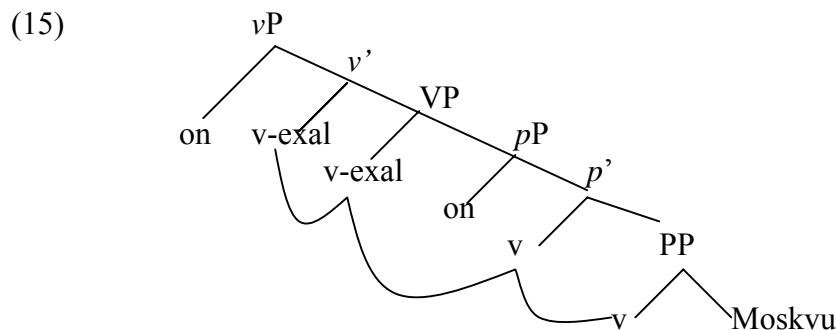
It is known that Russian prefixes behave like heads (bound morphemes); e.g. they cannot be topicalized, focalized, stranded by verb movement or stranded by gapping. So, if prefixes and prepositions are identical elements (copies of the same element) and both are heads, then given Head Movement Constraint², they must be in a local relation. Thus, I follow Svenonius (2004) and decompose prepositional phrases into *pP* and *PP*, see (13). Advantages of this decomposition will become clear below. *P* introduces the Ground argument and *p* the Figure argument. Figure is located or somehow specified wrt. Ground. Consequently, in accordance with data, we get six possibilities for positions of *P* elements, as shown in (14).



(14)

	prefix	preposition	
1	0	0	not interesting (e.g. <i>pisat' pismo</i>)
2	1A	1A	P-to-p movement
3	1A	1B	2 different mergers
4	0	1	no P-to-p movement
5	1A	0A	P-to-p movement but 1 spellout
6	1A	0B	2 different mergers but 1 spellout

Since the first possibility is not interesting, let us begin with the second one, i.e. there are a homophonous prefix and preposition in the sentence, as in example (12a). Its derivation then looks like (15). The *P* element *v* merges as big *P*, assigns accusative to *Moskva*, and then moves to *p*. *On* merges as Figure in Spec,*pP*, hence it is located wrt. Ground *Moskvu*. Then *v* incorporates into the verb and they move up.



This movement analysis is supported by the contrast in (16), where the non-homophonous *P* element *na* in (16b) blocks the local relation between the two copies of the *P* element *v*.

² HMC (Travis 1984, 131): An X^0 may only move into the Y^0 which properly governs it.

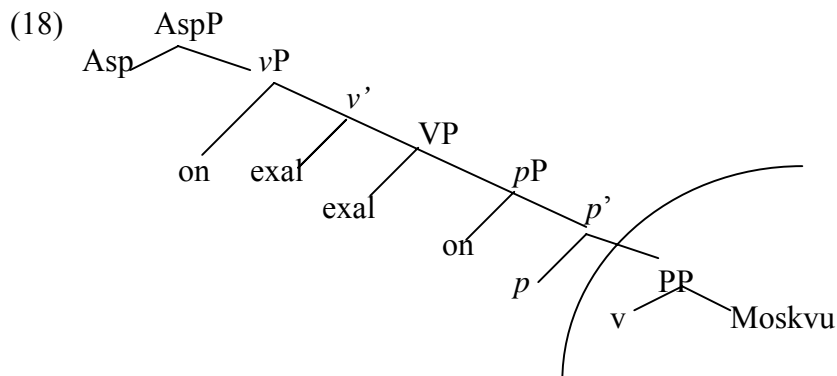
- (16) a. Popugaj v-letel v komnatu na stol.
 parrot in-flew in room-acc on table-acc
 ‘The parrot flew into the room, onto the table.’
 b. *Popugaj v-letel na stol v komnatu.
 parrot in-flew on table-acc in room-acc

2.2. pf-Feature

A comparison of (12a) and (17) shows that the P element does not have to be present on the verb. This is the fourth possibility from (14). In this case, the verb remains imperfective and the sentence does not imply that *he* reached *Moscow*, in contrast to (12a).

- (17) On exal v Moskvu.
 he drove in Moscow-acc
 ‘He was driving to Moscow.’

Since almost all prefixes make verbs perfective, I assume that P elements bear a perfective feature. However, prepositions do not make verbs perfective (17). Hence, prefixes should value the aspectual-Feature on Asp as perfective, but prepositions should not. To achieve this, I assume that *p*Ps are phases and that for phases PIC³ holds. What is crucial is that in (17) the P element *v* with its pf-F stays in situ and PP is spelled out before merger of Asp, see (18). Hence, it is inaccessible for Asp and pf-F on *v* cannot value asp-F on Asp as perfective.



As shown by (19), which is the third possibility from (14), a verbal prefix can differ from the preposition. In this case, *v* merges as P and *pri* as *p*. *Pri* then incorporates into the verb, moves with it to the verbal head *v* and from there it can value asp-F on Asp. This brings about the definite reference time with the resulting localization of Figure *on* in Ground *Moscow*.

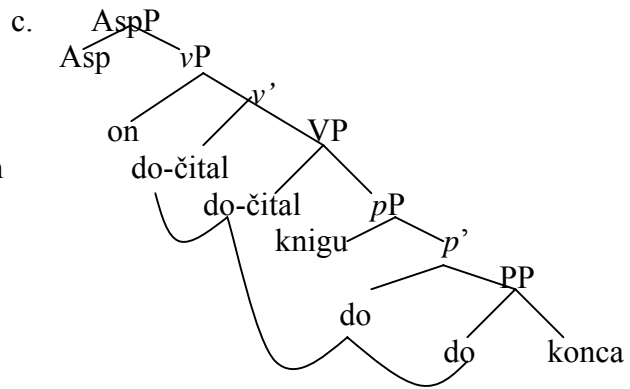
- (19) On pri-exal v Moskvu.
 he by-drove in Moscow-acc
 ‘He came to Moscow.’

The fifth possibility is demonstrated in (20a). Only the prefix copy of *do* is spelled out; *p*P is covert. The whole sentence may look e.g. like (20b) and have a derivation like (20c).

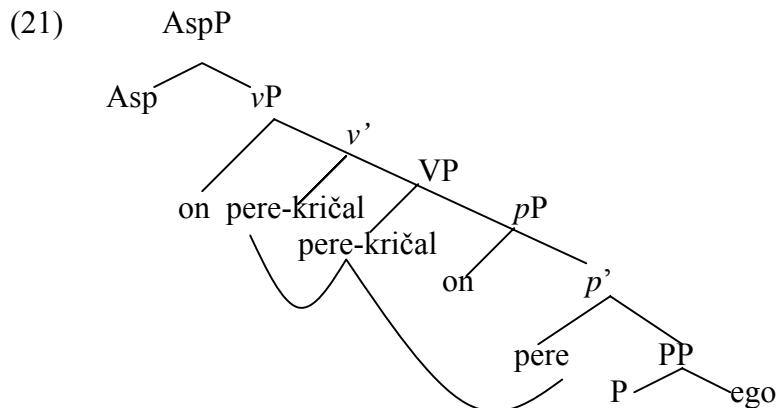
³ Phase Impenetrability Condition (Chomsky 2000, 108):

In phase α with head H, the domain of H is not accessible to operations outside α ; only H and its edge are accessible to such operations.

- (20) a. On do-čital.
 he to-read
 'He finished reading.'
 b. On do-čital knigu do konca.
 he to-read book-accto end-gen
 'He read the book through.'

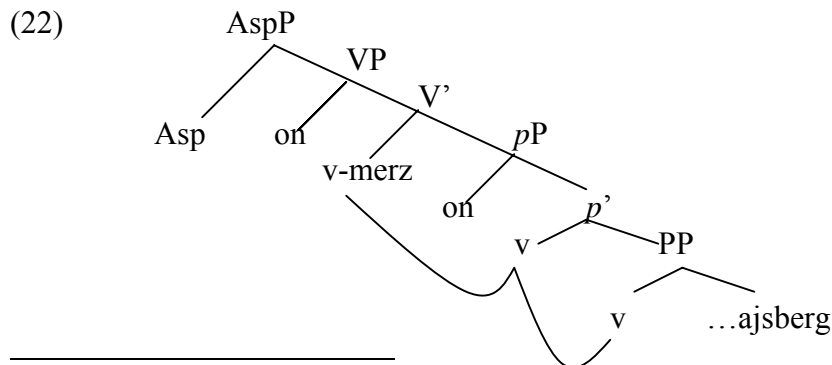


As to the sixth possibility, consider (5b). Since there is no preposition *pere* in Russian, (5b) can be analyzed as having two different P elements, *pere* and P, with *pere* being merged into *p*, as shown in (21). Since *pere* incorporates into the verb, moves up and values the asp-F on Asp as perfective, we get a result state with Figure *on* (specifically, his loudness) being higher – i.e. *pere* - than Ground *ego* on the loudness scale.⁴



2.3. Argument structure augmentation

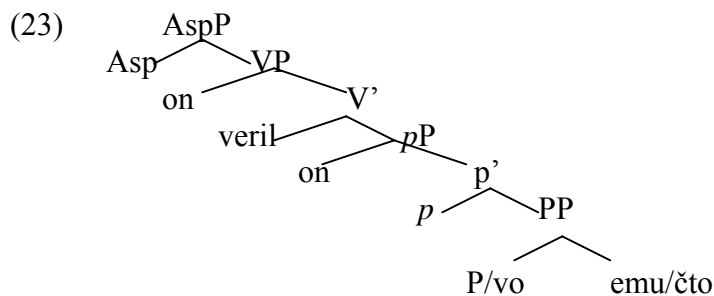
A prefix can causativize or telicize the verb it is attached to. In this section, I show that it depends on both the meaning of the prefix and the meaning of the verb whether the appropriate event is causativized or augmented into a telic event. Example (3) shows that *v* licenses the result state predicate, i.e. *pP*, as demonstrated in (22).



⁴ Note that the interpretation of the prefix – whether it is LP or SP - is dependent on properties of other elements in *vP*; e.g. *pere* is LP in *pere-tancevat' porog* 'across-dance doorstep'.

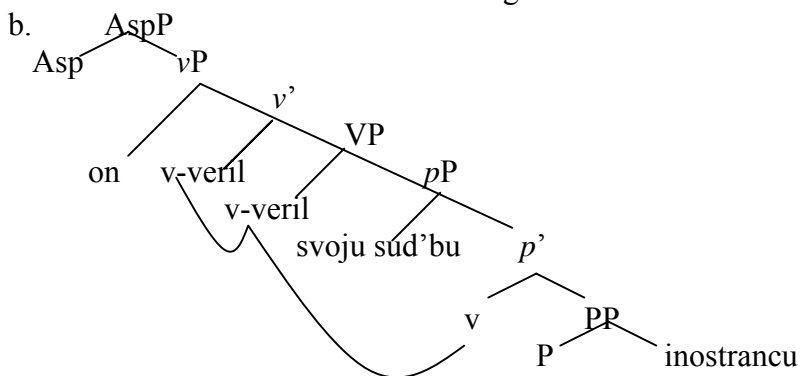
The P element *v* moves, incorporates into the stative verb and then its pf-F values asp-F on Asp as perfective. Given the lexical properties of *v*, the definite reference time corresponds to the transition between the VP subevent and the result *pP* subevent.

The verb in (4a) is a two-place state. Since *P/vo* stays in situ, see (23), in contrast to the P element *v* in (22), there are no argument structure effects. The P element cannot interact with the verb at LF because they are sent to LF in different phases. And since the P element stays in situ, there is no perfectivity, hence no transition between the VP predicate and the *pP* predicate, in contrast to (22). The predicates combine via event identification.



However, given incorporation of *v* into the verb, (24) is a case of result augmentation, similarly as (22). In addition, it is also cause - i.e. *vP* – augmentation, in contrast to (22). This shows that causativity depends on both the prefix and the verb, not only on lexicosemantic properties of the moved P element.

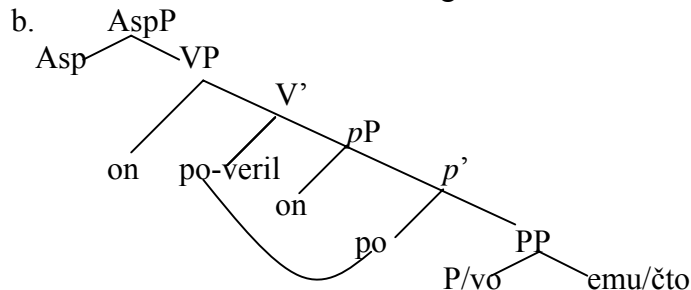
(24) a. On *v-veril* svoju sud'bu inostrancu.
 he in-believed self fate-acc foreigner-dat
 'He entrusted his fate to a/the foreigner.'



Similarly, in (4b), *verit'* is causativized by the incorporated P element *s*, in addition to the result state induced by the valued asp-F on Asp. Thus, one might think that *verit'* generally can be causativized and telicized when a P element incorporates into it. However, as shown by the inchoative verb in (25), not every prefix attached to *verit'* can do that. *Po* incorporates into the verb and values asp-F on Asp as perfective. But because of the lexicosemantic properties of *po*, the definite reference time corresponds to the inceptive transition. This again

shows that argument structure augmentation depends on both elements, not only on the lexicosemantic properties of the verb *verit*'.

- (25) a. On po-veril emu/vo čto
 he along-believed him-dat/in what-acc
 'He believed him/in something.'



3. Summary

I have argued that prefixes - both lexical and superlexical - and prepositions are identical elements. They bear a perfective feature and assign cases. Depending on their base position and movement, they can affect different portion of the sentence (semantic) structure. Only P elements that are not trapped in the *pP* phase can affect aspectual and argumental properties of the verb and sentence.

References

- BABKO-MALAYA, O. *Zero Morphology: A Study of Aspect, Argument Structure, and Case*. Ph.D. dissertation, Rutgers University, 1999.
- BISKUP, P. P(refixe)s and P(reposition)s. *Proceedings of 2nd Congress of the SLS*, to appear.
- CHOMSKY, N. Minimalist Inquiries: The Framework. In Martin, R., Michaels, D., Uriagereka, J. (eds.), *Step by Step: Essays on minimalist syntax in honor of Howard Lasnik*. Cambridge, Mass.: MIT Press, 2000, 89-156.
- RAMCHAND, G. Time and the event: The semantics of Russian prefixes. *Nordlyd* 32.2, *special issue on Slavic prefixes*, ed. P. Svenonius, 2004, 323-361.
- SMITH, C.S. & RAPPAPORT, G.C. The Aspectual System of Russian. In C.S. Smith (ed.) *The Parameter of Aspect*. Dordrecht: Kluwer Academic Publishers, 1997, 227-61.
- STARKE, M. *Move Dissolves into Merge*. Ph.D. dissertation, University of Geneva, 2001.
- SVENONIUS, P. Adpositions, Particles, and the Arguments they Introduce. *lingBuzz/000042*, 2004.
- TRAVIS, L. *Parameters and Effects of Word Order Variation*. Ph.D. dissertation, MIT, 1984.