

Polysemy of verbal prefixes in Russian: conceptual structure versus syntax

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1. Introduction

1.1. Polysemy of Russian verbal prefixes

- (1) Polysemy of prefix *pere-* ‘over’ with the verb *igratj* ‘to play’:
- a. Pianist pere-igral ruku
pianist pere-played hand
‘The pianist over-exercised a hand by playing too much’ (about musicians)
 - b. Akter pere-igral svoju rolj
actor pere-played his part
‘The actor over-acted his part’
 - c. Geroj pytalsja pere-igratj svoju žiznj
character tried pere-play his life
‘The character tried to re-act his life (repetition)’
 - d. Komanda pere-igrala protivnik-a
team pere-played opponent-ACC
‘The team out-played the opponent’ (to win, in sports)
 - e. Rebenok segodnja pere-igral i kaprizničat
child today pere-played and grizzles
‘The child played for too long today and is cranky’
 - f. Orkestr pere-igral vse marši
orchestra pere-played all marches
‘The orchestra played every march’ (distributive)
- Different uses of a single prefix share a core meaning, specified in the lexicon.
 - This conceptual meaning combines with the other, structural, meaning component which is a function of the syntactic position of the prefix.

1.2. Conceptual meaning combined with structure:

| | pere- 'exceeding' | pro- 'through' | do- 'up to' | ot- 'off' (+ -) | za- 'into' (- +) |
|-------------------------------|------------------------------------|--|-------------------------------------|--|---------------------------------------|
| I. Idiomatic lit. | pere-varitj over-cook digest | pro-bratj through-take affect deeply | do-bitj up.to - beat complete | ot-vertetjsja away-twist-REF avoid | za-pastj into-fall fall in love |
| II. R(e; ground) | pere-bežatj run across | pro-bežatj run through | do-bežatj run up to | ot-bežatj run away | za-bežatj run into |
| III. R(e, theme) | pere-goroditj block | pro-bitj break through | | | |
| IV. R(e, norm) | pere-varitj over-cook | pro-varitj cook through | do-varitj complete cooking | ot-varitj cook completely | za-varitj brew (tea) |
| V. R(e, res(e ₁)) | pere-pisatj re-write | | do-pisatj write more | | |
| VI. R(e, time) | pere-plavatj over-swim | pro-plavatj swim for a time | do-plavatj complete swimming | ot-plavatj stop swimming | za-plavatj start swimming |

1.3. Lexical-superlexical distinction

The distinction between lexical and superlexical prefixes has been widely recognized: (Isačenko (1960), Romanova (2004), Svenonius (2004), Babko-Malaya (1999), Schoorlemmer (1995))

(2) Lexical vs. Superlexical Prefixes (Romanova 2007)

| | Lexical | Superlexical |
|--|--|---|
| secondary imperfectivization | yes <i>ot-prygnutj</i> OT-jump <i>ot-pryg-iva-tj</i> OT-jump-IMP-INF | no <i>ot-plavatj</i> OT-swim <i>*ot-plav-yva-tj</i> OT-swim-IMP-INF # <i>ot-plyv-atj</i> |
| stacking | no | yes pro-vy-dergivatj <i>PRO-VY-pull</i> spend time pulling out |
| change the argument structure of the verb | yes <i>*spatj ekzamen</i> 'sleep exam' <i>pro-spatj ekzamen</i> 'sleep through exam' | no |

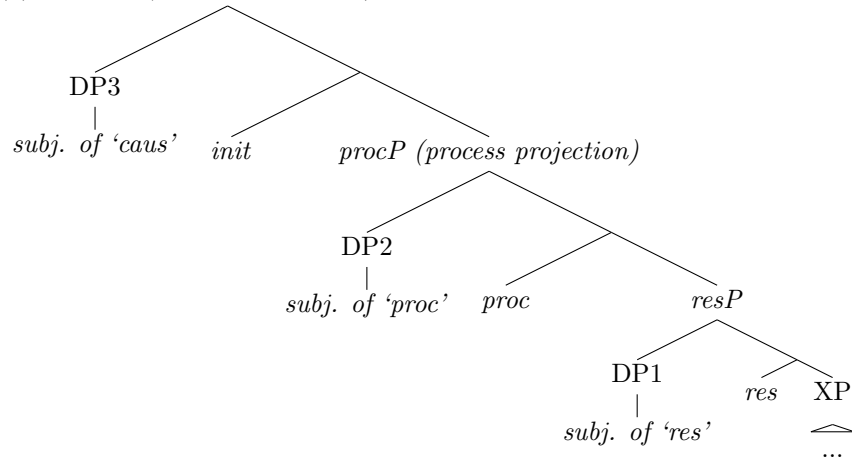
1.4. First Phase Syntax

Principle of Event Composition (Ramchand 2008):

(3) If a head X which introduces an eventuality variable e_x , embeds a projection YP where Y introduces the eventuality variable e_y , then

the structure is interpreted as $e_x \rightarrow e_y$ (e_x 'leads to' e_y).

(4) *initP* (causing projection)



Lexical prefixes - specifier of *res* head

Superlexical prefixes - specifier of aspect head (cf. Pereltsvaig (2006))

2. Meanings of *pere-*

(5) Meanings:

| | example | translation | sec. impf. | stacking | PP | instr |
|--------------------|--------------|---------------|---------------|---------------|-----|-------|
| I. Idiomatic | perevaritj | digest | yes | do-, po-, na- | no | no |
| II. dir. motion | perenesti | carry across | yes | do-, po-, na- | yes | no |
| III. spatial | peregoroditj | block the way | yes | do-, na-, po- | no | yes |
| IV. overdo (tr.) | peresolit | oversalt | yes | po- | no | no |
| V. repetitive | peredelatj | redo | yes | both sides | no | no |
| VI. overdo (intr.) | pereplavatj | swim too much | no | no | no | no |

- . The lexical prefixes are located in the specifier of *res* and establish the relationship between the event and a measure provided by the complement of the *res* projection.

I. idiomatic - lexical structure, but idiomatic conceptual meaning

II. pere(event)(path) - the result of the event exceeds the path

III. pere(event)(space) - the result of the event exceeds the dimensions of the direct object

IV. pere(e))(f(n)) - the result of the event exceeds the norm

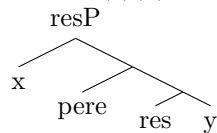
- Intermediate prefixes are located in the specifier of *proc* head.

V. pere(e)(result) - new process event exceeds the result of old event

- The superlexical prefixes are located in the specifier of aspect and establish the relationship between the event and a contextual (usually temporal) scale.

VI. pere(e)(f) - event exceeds a time scale

- (6) $\text{resultee}(e)(x) \ \& \ \text{pere}(e) \ \& \ \text{result}(e)(y) = e \text{ exceeds } y.$



3. Idiomatic meanings (I)

| (7) | verb | gloss | idiomatic usage | sec. impf | stacking |
|-----|--------------------|--------------------|-----------------|-----------|----------|
| | pere-živatj | over-live-sec.impf | worry | yes | yes |
| | pere-igratj (ruku) | over-play | about musicians | yes | yes |
| | pere-spatj | oversleep | have sex | yes | yes |
| | pere-borschitj | over-borsch-inf | overdo | yes | yes |
| | pere-togo | over-that.GEN | overdo | | |

When these same verbs are used non-idiomatically, their properties may be different:

| (8) | verb | ltranslation | sec. impf | stacking | class |
|-----|-------------|----------------|-----------|----------|-------|
| | pere-igratj | play too long | no | no | VI |
| | pere-spatj | sleep too long | no | no | VI |

4. Directional motion (II)

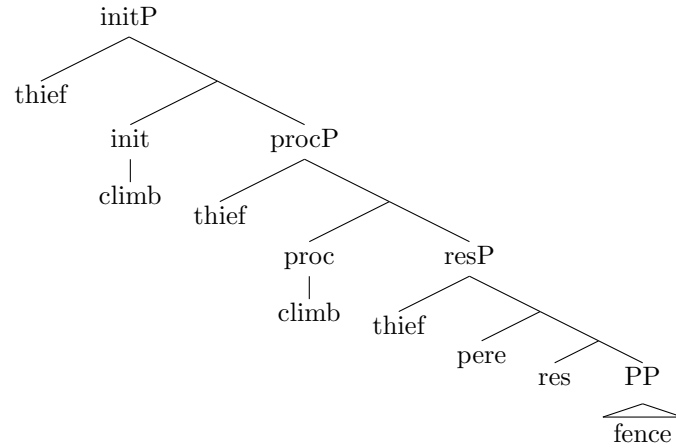
List of directional motion verbs, adopted from Janda (2006):

- (9)
- | | |
|---------|----------------------|
| bežatj | run |
| bresti | walk with difficulty |
| vezti | carry (by vehicle) |
| vesti | lead |
| gnatj | drive, chase |
| exatj | drive |
| idti | walk |
| katitj | roll |
| leztj | climb |
| letetj | fly |
| nesti | carry (on foot) |
| plytj | swim, sail |
| polzti | crawl |
| tasčitj | drag |

These verbs allow secondary imperfective, can have superlexical prefixes stacked above them, and demand a Rheme PP denoting path.

- (10)
- Vor pere-lez (čerez) zabor.
thief over-climbed (across) fence.
The thief climbed over the fence.
 - Vor pro-lez v fortočku.
thief through-climbed in window
The thief climbed in through a window.
 - Alpinisty do-lezli do samogo verxa.
alpinists up.to-climbed up.to very top
The alpinists climbed up to the very top.
 - Malčik ot-skočil ot kostra
boy from-jumped from fire
The boy jumped away from the fire.
 - Malčik za-lez na čerdak
boy into-climbed on attic
The boy climbed up to the attic.
- (11)
- $climb(e) \& initiator(e)(thief) \& [e \rightarrow e'] \& climb(e') \& undergoer(e')(thief) \& [e' \rightarrow e''] \& resultee(e'')(thief) \& pere(e'')(fence)$
- (12) The climbing event, of which the thief was the initiator, leads to a climbing event e' , of which thief is the undergoer, which leads to result e'' , of which the thief is the resultee, and which is an exceeding mapping relationship between the event and the path over the fence.

(13)

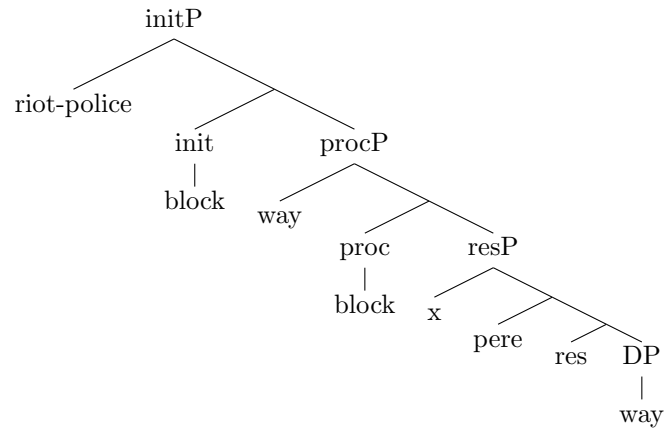


5. Spatial / dividing meaning (III)

(list adopted from ‘Exploring Emptiness’ project, with my own additions)

- (14) pere-rezatj cut across
pere-čerknutj cross out
pere-bitj smash into two parts
pere-krytj cover (a flow)
pere-rubitj chop into two parts
pere-goroditj block
pere-rytj dig across
pere-lomitj break into two parts
- (15) OMON pere-gorodil proxod (mašinami)
riot-police over-blocked way.ACC (machines-INSTR)
‘The riot police blocked the way (with trucks)’
- (16) $goroditj(e) \& initiator(e)(OMON) \& [e \rightarrow e'] \& undergoer(e')(way) \& [e' \rightarrow e''] \& pere(e'') \& \exists x \& resultee(e'')(x) \& pere(e)(way)$
- (17) There is a blocking event, the initiator of which is the riot police, which leads to a blocking process e' , the undergoer of which is the way, which leads to the result event e'' , and the event exceeds the relevant dimension of the way (=‘something over the way’).

(18)



(19)

pro- is also compatible with the spatial meaning:

- a. *pro-bitj* *dyrku* (v *stene*)
THROUGH-hit hole in wall
to make a hole (in a wall) (directional motion, II)
- b. *pro-bitj* *stenu* (*molotkom*).
THROUGH-hit wall hammer-INSTR
to breach a wall (with a hammer) (spatial meaning, III)
- c. *pro-rubitj* *tunnel* (*skvozij skalu*)
THROUGH-hew tunnel through rock
'to cut a tunnel through rock (directional motion, II)
- d. **pro-rubitj* *stenu na ulicu*. (spatial, III)
THROUGH-hew wall into street
- e. *eta drelj lyubuju stenu pro-sverlit*.
this drill any wall through-drill.FUT
This drill can drill through any wall. (spatial, III, instrument
as subject)

(20)

There is a hitting event, which leads to hitting process, of which the wall is the undergoer, which leads to the result event, which is a 'through' type of event and...

- a. The result of the hitting event is through the (unpronounced) wall, and the resultee is the hole.
- b. The result of the hitting event is through the wall, and the resultee is an (unpronounced) instrument.

6. Lexicalized scale (IV)

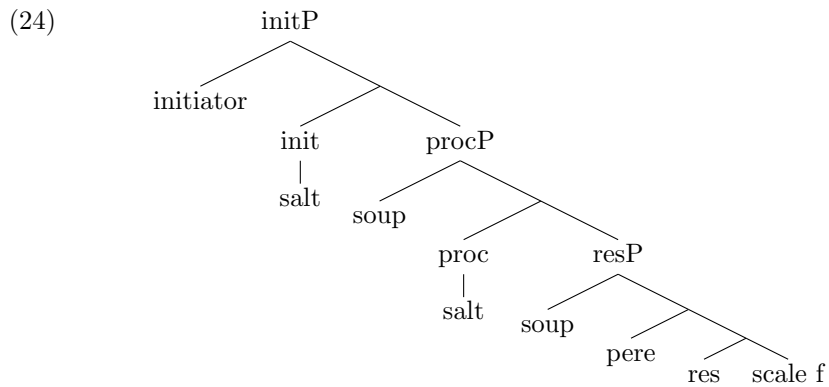
Verbs that offer a scale of gradual change and a 'norm' (culmination):

- (21)
- | | |
|-------------|------|
| solitj | salt |
| varitj | cook |
| žaritj | fry |
| gretj | warm |
| oxladitj | cool |
| gruzitj | load |
| litj | pour |
| perepolnitj | fill |
| sušitj | dry |

- (22) povar pere-solil sup
 cook over-salted soup
 cook over-salted the soup.

- (23) $salt(e) \& initiator(e)(cook) \& undergoer(e')(soup) \& resultee(e'')(soup) \& pere(e'')(f)$

There is a salting event, of which soup is the undergoer, and there is a contextual measure function (of how much salt a soup needs), which was exceeded by the result .



- (25) Vasja do-pisal glavu.
 V. do-wrote chapter
 Vasja completed writing the chapter.

- (26) $write(e) \& initiator(e)(Vasja) \& undergoer(e')(chapter) \& resultee(e'')(chapter) \& do(e'')(f)$

The writing process leads to the result, of which the chapter is the resultee, and the result event is a 'do-' event, i.e. event of reaching the right edge of the scale f, lexicalized by the verb, i.e. completeness of the chapter.

- (27) xozjajka ot-stirala skatertj.
 hostess ot-washed table-cloth.ACC
 The hostess washed (the dirt off) the tablecloth.
 (implication: table-cloth was dirty)

- (28) $wash(e) \& initiator(e)(hostess) \& undergoer(e')(table-cloth) \& resultee(e'')(table-$

$cloth) \& ot(e'')(s)$

There is a washing event, which leads to a result event, of which the tablecloth is the resultee, and the result is an ‘ot-’ transition event (plus to minus), which is a transition from the opposite state (i.e. transition from being dirty to being clean)

- (29) fermer za-bil svinju
 farmer za-beat pig
 The farmer slaughtered the pig.

- (30) $beat(e) \& initiator(e)(farmer) \& undergoer(e')(pig) \& resultee(e'')(pig) \& za(e'')(s)$

In the result state, the pig is the resultee of a ‘za-’ transition type of event, which is a minus to plus transition, and leads to a new state (the pig turns into pork).

7. Repetitive: Intermediate prefixes (V)

Tatevosov (2008): Intermediate Prefixes, compared to Lexical and Super-lexical:

| (31) | SLP | Intermediate | LP |
|---------------------------|-------------------|---------------------|----------------------|
| Meaning | compositional | compositional | normally non-comp. |
| Multiple prefixation | above ITMP and LP | Below SLP, above LP | Below SLP and ITMP |
| Aspectual selection | imperfective | no restrictions | lexical restrictions |
| Position w.r.t. sec.impf. | normally above | always below | always below |
| Nominalization | not allowed | allowed | allowed |
| Stacking | not allowed | allowed | not allowed |

Examples from Tatevosov (2008)

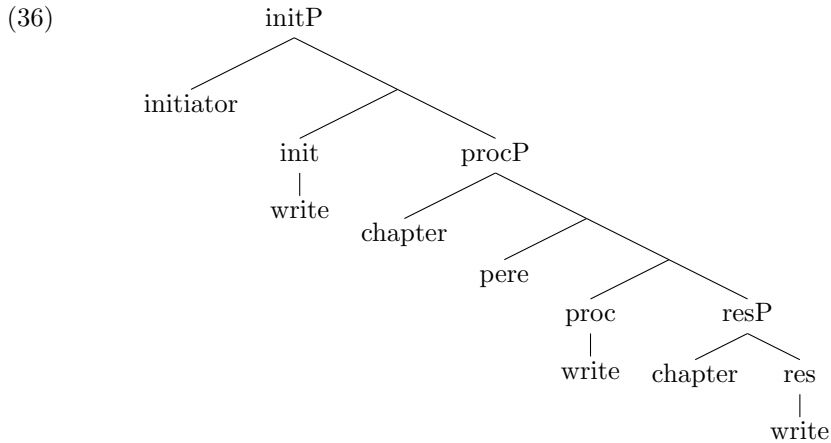
- (32) a. Vasja nemnogo po-pere-za-pis-yva-l
 V. for.a.while SLP-IP-LP-write-IPFV-PST.M
 diski (i ušel domoj)
 CD-PL.ACC and went home
 Vasja spent some time re-recording CDs, and went home.
- b. Vasja [[do-[za-bi]-va]-l gvozd-i v sten-u.
 V. CMP-LP-hit-IPFV-PST.M nail-ACC.PL in wall-ACC
 (When I came,) V. was completing hammeringIPFV nails into
 the wall.
- (33) Nominalization:
- a. *na-za-bi-va-nij-e gvozd-ej
 CUM-LP-hit-IPFV-NMN-NOM.SG nail-GEN.PL
 hammering a lot of nails
- b. do-za-bi-va-nij-e gvozdej
 CMP-LP-hit-IPFV-NMN-NOM.SG nail-GEN.PL

completing hammering of nails
 c. pere-risov-k-a kartinok
 RPT-draw-NMN-NOM.SG picture.GEN.PL
 re-drawing of pictures

(34) ja pere-pisala glavu
 I pere-wrote chapter
 I rewrote the chapter.

(35) $write(e) \& initiator(e)(I) \& [e \rightarrow e'] \& write(e') \& undergoer(e')(chapter) \& [e' \rightarrow e''] \& pere(e')(f) \& [measure(f)(resP_2)] \& resultee(e'')(chapter)$

There is a writing event e , of which I am the initiator, which leads to a writing process of which the chapter is the undergoer, and the result state exceeds a previous result state, where a chapter was written.



Initiator is above the prefix, hence outside of scope of repeating (the previous writing may or may not have the same initiator).

The resultee is inside the scope of the prefix, so the previous writing eventuality has to happen to the same chapter.

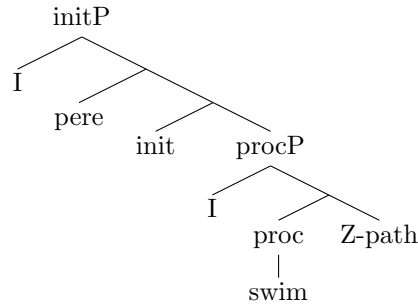
8. Superlexical prefixes, temporal interpretation (VI)

(37) ja pere-plavala v bassejne
 i over-swam in the swimming pool
 I swam too much in the swimming pool

(38) $[pere(e)(f) \& \exists f [measure(f)(e)] \& swim(e) \& initiator(e)(swim) \& undergoer(e)(I)]$

There is a swimming event, of which I am both initiator and undergoer, and there is a measure function, of how much swimming I can endure, and event exceeds f .

(39)



(40) Pro-xoditj dva časa.
PRO-walk^{non-dir} two hours
'to walk for two hours.'

There is a walking event, and a 'through' relationship holds between the event and the measure function (two hours)

(41) Matros do-plaval rejs
sailer DO-swam^{non-dir} trip-ACC
'The sailor sailed till the end of the trip (and then quit).'

There is a sailing event, and there is a 'reaching the boundary' relationship between the event and the measure function (trip)

(42) IL-76 svoe ot-letal.
IL-76 its-ACC OT-fly^{non-dir}
'(The plane) IL-76 has done its flying (and will never fly again)'

There is a plus to minus transition event, namely the transition from flying to never flying again.

(43) Časy za-xodili.
clock ZA-walked^{non-dir}
'The clock started working'

There is a minus to plus transition event, namely from not working to working.

9. Conclusion

The syntactic type of the verbs allows us to predict how the prefix may be interpreted:

(44) Directional motion verbs - only lexical prefixes (II)
Rheme is required for path to be measured

(45) Creation verbs (sew, knit, write, draw, etc.):
metaphorical transfer (II): when a goal PP is present

redo (IV) - when the verb is used as transitive
overdo (VI) - when the verb is used as intransitive, object may appear in oblique case

- (46) Divide verbs (cut, block):
spatial (III) - where either the agent or the instrument (the figure exceeding) can be the subject, the direct object is rheme / ground (exceeded)
- (47) Unergative (sing, dance):
overdo (VI)
- (48) Stative (sleep)
overdo (VI)
- (49) Scalar verbs (cook, salt, bend, load, pour, fill, heat, dry)
overdo(IV)
- There is a single conceptual meaning per prefix (e.g. 'exceed' for *pere*)
 - The meaning differences correlate with structural differences
 - The meaning is predictable from verb structure

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