Ora Matushansky, SFL (CNRS/Université Paris-8)
email: ora.matushansky@cnrs.fr
homepage: http://www.trees-and-lambdas.info/matushansky/

RUSSIAN VERBALIZATION, VERBIFICATION, VERBALIZING AND OTHER VERBIAGE

Formal Models in Linguistics II, HSE, Moscow, November 11–12, 2026

1 INTRODUCTION: "AFFIX PLEONASM"

Haspelmath 1993 (see also Lehmann 2005, Gardani 2015): "the semantically vacuous addition of a transparent affix to a word that is already characterized for the morphosyntactic property expressed by this affix" (p.297)

(1) a. učítelʲ 'teacher.SG' → učitelʲ-á 'teachers'
b. knʲázʲ 'prince.SG' → knʲazʲ-i-á 'prince-AUG-PL'

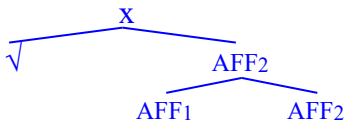
Hockett 1947, Aronoff 1994:44ff., etc.: empty morphs
Haspelmath 1995, Stump 2022: affix telescoping
Krott et al. 2004, Plénat & Roché 2004, Plénat 2005, Roché 2015, etc.: interfixes
Bauer & Lieber & Plag 2013:181ff.: extenders

The phenomenon is very widespread and **in many (if not all) cases the "empty morph" has an independent existence as a contentful morpheme**

Proposal: many of these cases can be accounted for by the **Micromorphology Hypothesis**

"Micromorphology" (term from Stump 2019; similar mechanisms in Bochner 1993, Soukka 2000, Luís & Spencer 2005, Stump 2017a, b, 2022, 2023): **affixes may form a constituent to the exclusions of the lexical stem**
Stump 2017a, b, 2019, 2022: two (Vocabulary Insertion$^{(DM)}$) **rules may conflate**

(2)



Independent evidence from phonology and semantics: the complex affix must be interpreted at both interfaces

1.1 Russian stress 1.01

Garde 1968a, b, 1998, Halle 1973, Zaliznjak 1985, Melvold 1989, etc.: the position of Russian lexical stress is primary determined by the underlying accentuation of various morphemes

- **Accented morphemes** carry an accent on themselves (open class)
- **Post-accenting** and **pre-accenting morphemes** set accent on the next or previous syllable correspondingly: while there are no pre-accenting roots, the class of post-accenting roots is large (Halle 1973:316 asserts that there are more than 2000 of them) but closed
- **Unaccented morphemes** have no accentual specification of their own (closed class estimated to contain more than 400 roots)

An **accentually dominant morpheme overrides the accentual specification of the stem**:

(3) a. kólokol 'bell' → kolokolá 'bells' accented dominant masculine plural *-a*
b. učítelʲ 'teacher' → učitelʲá 'teachers'
c. dogovór 'treaty, contract' → dogovorá 'contracts'

If there are no dominant suffixes:

(4) **The Basic Accentuation Principle** (Kiparsky & Halle 1977):
Assign stress to the leftmost accented vowel; if there is no accented vowel, assign stress to the initial vowel.

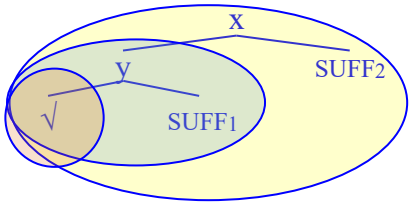
When two or more non-dominant accents are present, the leftmost wins

1.2 Complex suffixation and the cycle

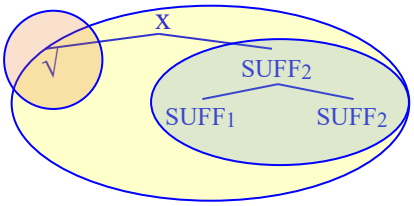
The phonological cycle follows morphological composition

Complex suffixation and iterative suffixation create different constituent structures:

(5) a. **iterative suffixation**



b. **complex suffix**



In a complex suffixation structure, the two suffixes form a cycle to the exclusion of the stem

1.3 Russian "double plurals"

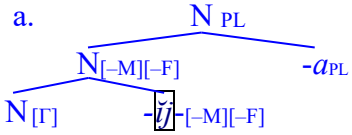
Matushansky 2025a: *-ǐj-* is an augment (rather than a second plural marker), which can attach to the stem or to the suffix
Motivation: underlyingly [+SG] (*singulare tantum*) stem, requiring an [αSG] augment + incompatibility of singular animate stems with the neuter gender of the augment

Evidence from prosody: animate and inanimate augmented plurals behave differently:

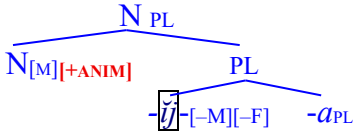
- accentual dominance for inanimates: stem-final stress irrespective of gender or the position of the stress in the singular (e.g., *kólos/kolósʲja* 'ear (of a cereal).SG/PL')
- accentual non-dominance for animates: stem stress for one noun, assumed to have an accented stem (*brat/brátʲja* 'brother.SG/PL'), and post-stem stress for the other animate nouns, assumed to have unaccented stems (e.g., *déverʲ/deverʲjá* 'husband's brother.SG/PL')

Proposal: different structures:
Accentual dominance indicated by framing

(6) a.



b.



The complex plural suffix forms its own phonological cycle, so the accentual dominance of the augment has no effect on the stem

Dominance effects in verbs derived with the suffix *-ow-* argue for complex suffix formation

2 VERBAL DERIVATION IN *-ow-*

The suffix *-ow-* is compatible with both native and loan roots/stems and must be followed by the thematic suffix *-a-*/*-i-*:
See Melvold 1989 for deriving the surface strings [ova] (in the past) and [uj] (in the present) from the combination of *-ow-* with *-a-* or *-i-*. The UR of both morphemes is likely to be more complex but this does not concern us here

(7) a. vek-ov-a-tʲ [vʲikʌˈvatʲ]
era/age/lifetime/century-OW-TH-INF
'to spend a lifetime'

b. pak-ov-a-tʲ [pəkʌˈvatʲ]
pack-OW-TH-INF
'to pack'

The suffix *-ow-* can also be preceded by other suffixes or **suffixal complexes** (i.e., sequences of suffixes that are not necessarily justified by intermediate steps; descriptive notion only):

(8) a. car-stv-ov-a-tʲ [ˈt͡sarstvəvətʲ]
tzar-STV-OW-TH-INF
'to rule (as a tsar)'

b. mark-ir-ov-a-tʲ [mʌrˈkʲirəvətʲ]
mark-IR-OW-TH-INF
'to mark'

c. steril-iz-ov-a-tʲ [stʲirʲilʲizʌˈvatʲ]
sterile-IZ-OW-TH-INF
'to sterilize'

d. radio-fic-ir-ov-a-tʲ [ˌradʲiəfʲiˈt͡sirəvətʲ]
radio-FIC-IR-OW-TH-INF
'to supply with radio'

e. improv-iz-ir-ov-a-tʲ [imprəvʲiˈzʲirəvətʲ]
CRAN-IZ-IR-OW-TH-INF
'to improvize'

Subparts of a suffixal complex may have independent use or fail to have one:

(9) a. car-stv-ov-a-tʲ [ˈt͡sarstvəvətʲ]
tzar-STV-OW-TH-INF
'to rule (as a tsar)'

b. car-stv-o [ˈt͡sarstvə]
tzar-STV-SG.NOM
'tzardom, kingdom'

(10) a. bed-stv-ov-a-tʲ [ˈbʲetstvəvətʲ]
trouble-STV-OW-TH-INF
'to live in poverty'

b. #bed-stv-i-e (×bed-stv-o)
trouble-STV-COLL-SG.NOM
'catastrophe'

Event nominalizations in *-acij-* lack *-ow-* and *-ir-* (cf. Booij 2010:34 for its counterparts in German (*-ier-*) and in Dutch (*-eer-*)), but **retain *-iz-* or *-fic-*** (underlyingly, *-fik-*):

(11) a. steril-iz-acij-a [stʲirʲilʲiˈzʌt͡sija]
sterile-IZ-ACIJ-SG.NOM
'sterilization'

b. improv-iz-acij-a [imprəvʲiˈzʌt͡sija]
CRAN-IZ-ACIJ-SG.NOM
'improvization'

c. radio-fik-acij-a [ˌradʲiəfʲiˈkʌt͡sija]
radio-FIC-ACIJ-SG.NOM
'supplying with radios'

But **both *-ir-* and *-ow-* appear only in verbal or deverbal contexts**
Potential objection: the non-productive agentive *-ir-*, as in *komandír* 'commander' (max. 50 nouns, most of which have no corresponding verb, and when they do, the verb in *-ir-* need not be semantically linked to corresponding *ir*-noun (e.g., *komandirovátʲ* 'to send on a business trip'))

What are the roles of the various verbal suffixes and the structure they are merged in?

3 THE VARIABLE ACCENTUAL DOMINANCE OF *-ow-*

Up to four suffixes may be involved in the formation of an inflected verb:

(12) a. teatral*izová*tʲ [tʲiətrəlʲizʌˈvatʲ] ‘to turn into a theater performance’
b. bolʲševiz*írova*tʲ [bəlʲʃivʲiˈzʲirəvətʲ] ‘to bolshevize’ (cf. *bolʲševík* ‘bolshevik’)
c. jofic*írova*tʲ [jifʲiˈtsirəvətʲ] ‘to insert the letter *ë* ([jo]) (instead of the letter *e*) into’
d. sklad*írova*tʲ [sklʌˈdʲirəvətʲ] ‘to store’ (from *sklad* ‘warehouse’)
e. toržestv*ová*tʲ [tərʒəstvʌˈvatʲ] ‘to triumph’ (from *toržestvó* ‘triumph’)
f. smak*ová*tʲ [səmʌˈvatʲ] ‘to relish’

And the position of the stress is not determined by the component parts

Two patterns of *-ow-a-* verbs (1080 verbs), only one (13a) retains the stem stress:

(13) a. ispovédovatʲ ‘to profess; confess (tr.)’ pre-*ow* (151)
b. intrigovátʲ ‘to intrigue’ post-*ow* (929)

Two patterns with *-ir-ow-a-* (1082 verbs), neither retains the stem stress:
17 verbs are claimed to vacillate between these two patterns

(14) a. markírovatʲ ‘to mark’ (cf. *márka* ‘stamp’) pre-*ow* (929)
b. maskirovátʲ ‘to mask’ (cf. *máska* ‘masque’) post-*ow* (136)

No variation with *-iz-*, *-iz-ir-* or *-fic-ir-*
All counts based on Zaliznjak 2010 (see the Appendix)

3.1 Two patterns of *-ow-a-* verbs (1080 verbs)

The post-*ow* pattern shows that ***-ow-* can be accentually dominant**:

(15) a. čarovátʲ [t͡ɕərʌˈvatʲ] ‘to bewitch’ (from *čárɨ* [ˈt͡ɕarɨ] ‘sorcery, charms’) native
b. intrigovátʲ ‘to intrigue’ (from *intríga* ‘intrigue’) loan

There is **no accentual variability**/indeterminacy/optionality in the post-*ow* sub-class

Native and loan bases exhibit different tendencies with respect to these sub-classes

3.1.1 The dominant (post-*ow*) pattern

Loan roots strongly favor the post-*ow* stress pattern (three exceptions, see next section):

(16) a. fabrikovátʲ ‘to manufacture’ (from *fábrika* ‘factory’)
b. intrigovátʲ ‘to intrigue’ (from *intríga* ‘intrigue’)
c. arendovátʲ ‘to rent, lease’ (from *arénda* ‘lease’)

Could all these loan roots be underlyingly unaccented or forced to become so in derivation?

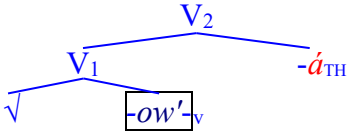
No: loan-based novel *i*-verbs do not force obligatory post-stem stress, even though the thematic suffix *-i-* is accented (examples from Nikitina 2003:282-301):

(17) a. kóks-i-t’ ‘to snort cocaine’ (from *koks* ‘cocaine’)
b. komatóz-i-t’ ‘to understand (the situation) poorly’ (cf. *komatóznyj* ‘comatose’)
c. kommunízd-i-t’ ‘to beat up; to steal’ (cf. *kommunízm* ‘communism’)
d. kóndor-i-t’ ‘to visit in order to eat (tr.)’ (cf. *kóndor* ‘condor’; also *kondorítʲ*)

Hence to derive this pattern, accentual dominance has to reside in the suffix *-ow-* rather than in the bases

Iterative suffixation yields the expected result:
The assumption that *-ow-* is post-accenting rather than unaccented will be needed later

(18)



V_1 in (18) contains a dominant post-accenting suffix, which yields a post-accenting stem, hence stress must surface on the thematic suffix *-a-* (which also happens to be accented)

The post-*ow* pattern is attested with native bases too, shown by **accented native stems**:

(19) a. kolʲadovátʲ 'to go from house to house performing Christmas carols'
(from *kolʲáda*, the corresponding Eastern-European tradition or a song sung then)

b. myškovátʲ 'to mouse' (from mýška 'mouse.DIM')

But with native bases ***-ow-* is not always dominant**

3.1.2 The non-dominant (pre-*ow*) pattern

Shvedova 1980:339: stem stress in verbs derived with the suffix *-ow-* is possible only for stem-stressed nouns

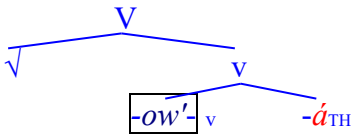
There are only three loan roots that appear with the pre-*ow* stress pattern:
The stress shift in (20c) is unexpected, since the noun has an accented stem, but also occurs in one of the adjectives derived from this root (*zatrapéznij* 'shabby' vs. *trápeznaja* 'refectory'). See the Appendix for discussion

(20) a. komándovatʲ 'to command' (from *kománda* 'command, order; team')
b. xristósovatʲasʲa 'to kiss each other on Easter Day' (from *Xristós* 'Christ')
c. trapézovatʲ 'to have a meal (arch.)' (from *trápeza* 'meal (arch.)')

Claim: the pre-*ow* stress pattern arises from the lexical accent of the base
The pre-*ow* subclass can also be analyzed as accentually dominant, I argue against this in the Appendix

The accentual dominance of *-ow-* does not affect the stem, if *-ow-* is merged as a sister to the thematic suffix:

(21)



A complex affix forms a **phonological cycle**, and *-ow-* can be dominant only within that cycle, assigning its accent to the thematic suffix

The resulting complex suffix is not expected to be accentually dominant

Thus in (21) a dominant post-accenting suffix combines with an accented suffix, which makes *v* in (21) **a non-dominant accented complex suffix**

If the lexical stem bears an accent, that accent wins:

(22) a. [[prázd -ĭn]-[ow-á]]-tʲ
idle -ADJ-OW-A-INF
'to feast' (cf. *prázdnij* 'idle')

b. [[žértv]-[ow-á]]-tʲ
victim-ADJ-OW-A-INF
'to sacrifice' (cf. *žértva* 'victim')

Note: post-accenting bases yield post-*ow* stress in both structures, no way to decide (except by productivity)

Open question: Why do some stems appear in the structure (18) and others, in (21)?

New issues arising from the structural solution (suspended for now):

- the choice of the structure by the stem
- the interpretation of -*ow*- inside a complex suffix

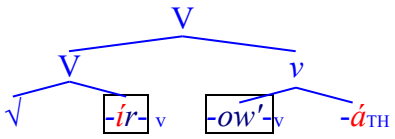
Reminder: no proper pre-existing hypothesis about the interpretation of -*ow*- and of its thematic suffix -*a*-/-*i*-

3.2 The variance with -*ir-ow-a*- (1082 verbs)

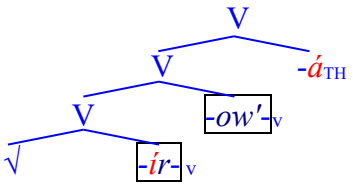
There are no *ir*-verbs with stress on the lexical stem, so **-*ir*- is accentually dominant** (and thus merged as a sister to √)

The position of the stress is accounted for by the structure of -*ow-a*-:

(23) a. stress on -*ir*- (929):



b. stress on -*a*- (136):



The pattern in (23b) arises rarer than that in (23a), suggesting that the formation of the complex suffix -*ow-a*- is the default option for -*ir*-

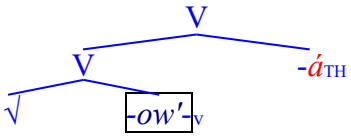
This is the exact opposite productivity pattern from verbs in the bare -*ow*-

Same open question: **why do some stems appear in the structure (23a) and others, in (23b)?**

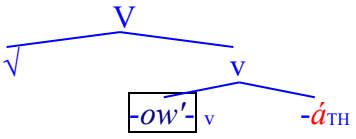
3.3 Intermediate summary

Two constituent structures suggested for -*ow*-:

(24) a. dominant post-*ow* pattern



b. non-dominant pre-*ow* pattern



Even though accentually dominant, **the suffix -*ow*- cannot affect the stem if merged inside a complex suffix** and the pre-*ow* stress pattern (base accent wins) is derived

Solutions achieved:

- the two accentual patterns for -*ow*- and -*ir-ow*- can be derived from the structural ambiguity of -*ow-a*-
- the persistent traditionalist intuition that -*ow-a*- forms a unit can be accounted for while retaining the component parts as independent morphemes
- the non-variable accentual behavior of the other suffixal complexes in -*ow*- (-*iz-ir-ow*-, -*fic-ir-ow*-, -*iz-ow*-, and -*stv-ow*-) can receive a similar account (section 4)

Problems, new and old:

- the choice of the structure by the stem, including the complex stem [√-*ir*], which is not expected to trigger contextual allomorphy (unless this is a case of non-locally conditioned allomorphy, which is something to be avoided)
- the interpretation of -*ow*- inside a complex suffix requires an implementation (as does the interpretation of -*stv*- inside a complex suffix)
- the syntactic heads that -*iz*- (-*fic*-), -*ir*-, -*ow*- and -*a*- correspond to remain a puzzle

Claim: prosody matches interpretation

4 ACCENTUALLY NON-VARIANT *OW*-VERBS

Both types of accentually non-variant verbs exhibit clear semantic uniformity:
- verbs in -*stv*- retain stem stress and are overwhelmingly **intransitive and atelic**
- verbs in -*iz*- and -*fic*- have stress after these suffixes and are **transitive and telic**

While the semantic regularities can be ascribed to the suffixes themselves, the accentuation can be derived from structure

4.1 Accentual non-dominance with -*stv*- (363 verbs)

Two factors: semantics and prosody

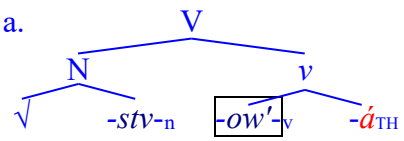
Verbs in -*stv*- are **primarily intransitive** (261 out of the 284 unprefixed non-*se*-marked stems, i.e., 91.90%) and:
- for loan bases (71 stems, 100% [+M][+HUMAN]), denote a behavior characterizing the denotatum of the base stem/root (i.e., the stem without -*stv*-), sort of ACT-*be*
- for native bases, mostly denote activities (behaviors, for [+HUMAN] bases)

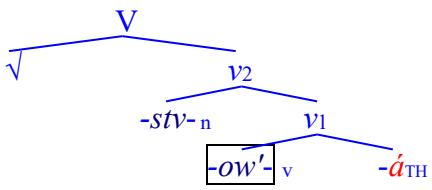
Prosodically, **this is the only type of *ow*-verbs that preserves the stress of the base** (cf. also Shvedova 1980:343)
The vowel *e* in (25a) is epenthetic, appearing after the "shibilants" (ч [t͡ɕ], ж [ʒ], ш [ʃ], щ [ɕːɕʲ])

(25) a. toržestvovátʲ 'to triumph' (cf. *toržestvó* 'triumph, celebration') post-*ow* (9)
b. soveršénstvovatʲ 'to perfect' (cf. *soveršénstvo* 'perfection') pre-*ow* (292)
c. svidételʲstvovatʲ 'to witness' (cf. *svidételʲstvo* 'testimony') stem (62)

Variable stress can be predicted if these verbs are derived with the **complex suffix -*ow-a*-**: the accent of the base is expected to win

Given that **the complex suffix -*ow-a*- is not accentually dominant**, the position of the stress is determined by the accentuation of the stem:

(26) a.


b.


The two constituent structures in (26) **cannot be distinguished by their accentuation**

Yet they can be distinguished by their semantics (see the Appendix)

4.2 Obligatory accentual dominance with *-iz-ow-* (121 verb)

***-ow-* is required** (no verbs with *-iz-* without *-ow-*)**, non-native stems only** (and *-iz-* need not to have been part of the borrowing):
Many doublets with *-iz-ir-*, which generally seem more natural to me, see section 6.1.1

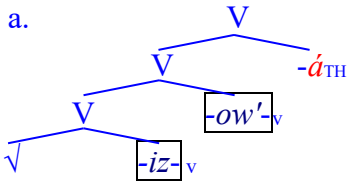
(27) a. realizovátʲ ‘to realize, implement’
b. teatralizovátʲ ‘to turn into a theater performance’

All **either transitive or *se*-marked** (anticausative)

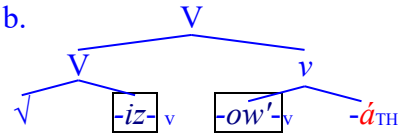
All exhibit **the post-*ow* stress pattern only**

The structure of *-iz-ow-* verbs is underdetermined if *-iz-* is accentually dominant:
Given that no derivation containing *-iz-* has stress on the stem or on *-iz-* itself, *-iz-* could be not just dominant, but also post-accenting. But given that all suffixes that can follow *-iz-* are accented (and sometimes dominant), this is unnecessary

(28) a.



b.



Assuming **iterative derivation** (28a), the dominant post-accenting suffix *-ow'-* would assign its accent to (the accented) thematic suffix *-a-*
All suffixes compatible with *iz*-verbs are themselves dominant, which means that *-iz-* can have any accentuation

However, **the complex suffix** *-ow-a-* yields the same result (28b): since *-ow'-* is dominant in its cycle, it wipes out the accent of *-a-*, but then assigns its own accent to it, yielding *-owá-* with an unaccented *iz*-stem

The post-*ow* pattern is correctly derived in both structures in (28)

4.3 Stress on *-ir-* for *-iz-ír-ow-* (207 verbs) and *-fic-ír-ow-* (43 verbs)

Native and non-native stems both, but with a strong preference for loan stems:

(29) a. nacional-iz-ír-ov-a-tʲ [nət͡sɪənəlʲiˈzʲirəvətʲ] ‘to nationalize’
b. jarov-iz-ír-ov-a-tʲ [jərəvʲiˈ͡zʲirəvətʲ] ‘to vernalize’ (from *jarovój* ‘spring-sown’)

(30) a. radio-fic-ír-ov-a-tʲ [ˌradʲiəfʲiˈt͡sirəvətʲ]
radio-FIC-IR-OW-TH-INF
‘to provide with radio connectivity’

b. teplo-fic-ír-ov-a-tʲ [tʲipləfʲiˈt͡sirəvətʲ]
warmth-FIC-IR-OW-TH-INF
‘to provide with (central) heating’

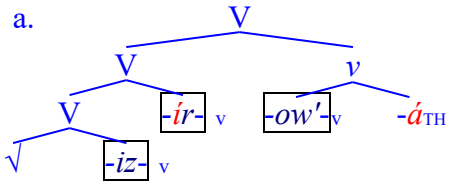
The formation of the complex suffix *-ow-a-* is required (or else stress will be predicted to fall on *-a-*, as in section 4.2, for *-iz-ow-*)

Since no verbs in *-iz-ir-* or *-fic-ir-* exhibits stem stress, either *-iz-* (and *-fic-*) or *-ir-* are required to be dominant, which means that the root is merged with them consecutively (iteratively)

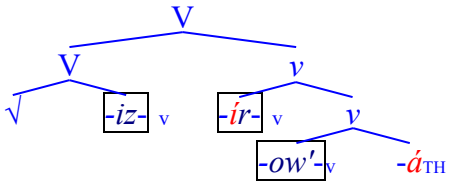
And *-ir-* needs to bear an accent (so either it is accented or *-iz-* (or *-fic-*) is post-accenting

The resulting structure is underdetermined:

(31) a.



b.



In both structures, stress is predicted to fall on *-ir-*

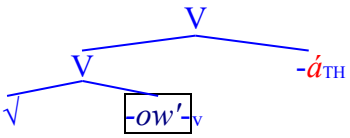
5 INTERMEDIATE CONCLUSION: THE PROSODY OF COMPLEX SUFFIXES

The suffix *-ow-* has been shown to exhibit two different behaviors:

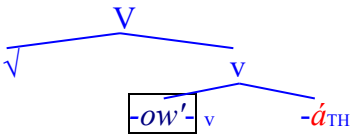
- dominant post-accenting (productive)
- non-dominant (post-accenting; hypothetically also unaccented)

The two behaviors have been linked to structural ambiguity:

(24) a. dominant post-*ow* pattern



b. non-dominant pre-*ow* pattern



The same ambiguity explains the accentual variability of *-ir-ow-a-* (23)

Other suffixal complexes exhibit no accentual ambiguity:

- *-stv-ow-á-* is non-dominant: analyzed as complex *-(stv)-ow-a-* suffix formation
- *-iz-ow-á-* is accented and dominant: analyzed as complex *-ow-a-* suffix formation
- *-iz-ír-ow-a-* is accented and dominant: analyzed as a complex *-ir-ow-a-* suffix (no special motivation over treating *-ir-* as an independent suffix, though)

The choice between the various structures must be determined by semantic considerations

6 THE SEMANTICS OF *-IR-* VS. *-IZ-* (AND *-FIC-*)

Foreshadowing: *-iz-* and *-fic-* are causative, *-ir-* seems to be semantically empty

6.1 The import of *-ir-*

It is not obvious what *-ir-* does, syntactically or semantically

Sokolova et al. 2025: *-irova-* is a "loan verb marker" (cf. Wohlgemuth 2009 for the *-ier-* in German; same for *-eer-* in Dutch)

- loan stems only (one native root (12d))
- no semantics, presumably (*-ova-* is analyzed as "simultaneously a verbalizer and a loan verb marker" (p.20)
- no decomposition
- unclear syntactic role (impossible in Distributed Morphology ("Syntax All the Way Down": what functional head(s) can be involved here?)

Empirical claim to test: the presence of *-ir-* does not change the semantics of the verb

Evidence:
- doublets with *-ir-*: (1) *-ir-ow-a-* vs. *-ow-a-*, (2) *-iz-ir-ow-a-* vs. *-iz-ow-a-*
- class comparison: verb profile with *-ir-ow-a-* vs. *-ow-a-*

6.1.1 *ow*-doublets and *iz*-doublets

19 *-ir-ow-a-*/*-ow-a-* verb pairs distinguished by *-ir-* (excluding their prefixed counterparts): 10 with the same meaning and 9 with distinct meanings

Meaning distinctions turn out to fall into two categories:
- stem allosemy/polysemy (e.g., (32))
- stem homonymy (e.g., (33))

Others are simply variants of each other (34):

(32) a. gazovátʲ ‘to step on the gaz’ stem polysemy
b. gazirovátʲ ‘to infuse with gaz’

(33) a. próbovatʲ ‘to taste, try, try on’ cf. próba ‘try’) stem homonymy
b. probírovatʲ ‘to assay’ (cf. próba ‘assay, gold or silver standard, hallmark’)

(34) debetovátʲ, debetírovatʲ ‘to debit’

Sometimes they coincide:

(35) a. illʲuminovátʲ ‘to illuminate’ (with light)
b. illʲuminírovatʲ ‘to illuminate (with light); color (in medieval books)’

Hence no evidence for *-ir-* contributing any meaning (unlike *-iz-*, see section 6)

There are **31 *-iz-ir-ow-a-*/*-iz-ow-a-* verb pairs distinguished by *-ir-*, no meaning distinctions** (though *-iz-ir-* is more modern)
I feel sometimes that there are nuances in how they are used, but they are very intangible

(36) a. legalizovátʲ/legalizírovatʲ ‘to legalize’
b. mobilizovátʲ ‘to mobilize’ (new: mobilizírovatʲ ‘to mobilize’)

Since **loan event nominals in *-acij-* do not include *-ir-*** (i.e., they are identical for the two verb types), this is unsurprising

6.1.2 Productive profile comparisons

Controlling for stress, *-ow'-*, *-ír-ow-* and *-iz-ír-ow-* (all followed by the thematic suffix *-a-*/*-i-*) are productive in Modern Russian (unlike *-iz-ow-*)

Table 1: Transitivity of productive *-ow-* verbs by suffixal type

	all verbs			unprefixed verbs only		
	items	intransitive	%intr	items	intransitive	%intr
-iz-ow-á-	121	0	0.00%	105 [85]	0	0.00%
-iz-ír-ow-a-	207	7	3.38%	201 [191]	7	3.48%
-fic-ír-ow-a-	43	0	0.00%	40 [36]	0	0.00%
-ír-ow-a-	929	146	15.72%	698 [658]	118 [114]	16.91%
-owá-/-ewá-	929	158	17.01%	346	76	21.97%
-'^{e}stv-ow-a-	363	309	85.12%	284	261	91.90%

The numbers in [] indicate the number of unprefixed verbs if the semantically identifiable loan prefixes *de(s)-*, *re-* and *dis-* are excluded

What do we see immediately?

- *-iz-* and *-fic-* are obligatorily transitive (causative semantics)
- *-stv-* verbs are overwhelmingly intransitive

The percentage of intransitive verbs rises if only unprefixed verbs are considered (because in these recent borrowings prefixation does not affect argument structure) and many of them do not have prefixed counterparts

What do we not see immediately?

- the productive *-ír-ow-a-* and *-ow-á-* classes have the same transitivity profile
- and it is the same profile as verbs in *-i-* (another productive conjugation class with a lot of recent borrowings, as noted by Sokolova et al. 2025)

Table 2: Transitivity of *-(ir)ow-* verbs compared to *-i-* verbs

	all verbs			**unprefixed verbs only**		
	verbs	**intransitive**	**%intr**	**verbs**	**intransitive**	**%intr**
-ír-ow-a-	929	146	15.72%	698 [658]	118 [114]	16.91%
-ir-ow-á-	136	6	4.41%	53	3	5.66%
-'ow-a-/-'ew-a-	151	37	24.50%	50	17	34.00%
-owá-/-ewá-	926	158	17.06%	346	75	21.68%
-i-	7274	659	9.06%	1258	270	21.46%

The non-productive *-ir-ow-á-* class has a different transitivity profile, which seems similar to that of *-iz(-ir)-ow-* verbs

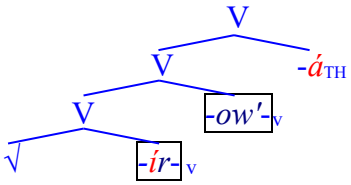
Semantically, they all involve causative change-of-state semantics

6.2 The event structure of *ow*-transitives

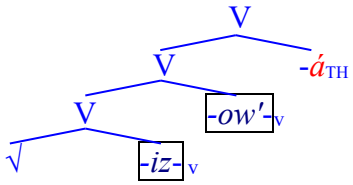
Independently known: the causative change-of-state semantics requires two events (or an event and a resultant state)

Evidence from accentual patterns permit **the three obligatorily transitive verb classes to be analyzed as containing two verbalizers that are merged iteratively:**

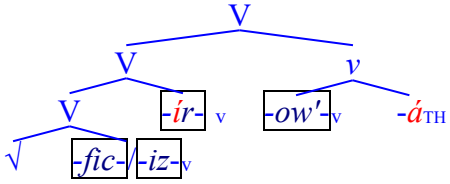
(37) a. dominant *-ir-ow-á-* pattern (136)



b. dominant *-iz-ow-á-* pattern (121)



c. dominant *-iz-ír-ow-a-* and *-fic-ír-ow-a-* pattern (productive)



It is not the specific lexicalizations of *v* that yield the change-of-state semantics or lack thereof, it is the structure they appear in

6.3 The semantics of a complex suffix

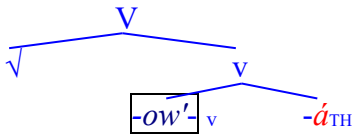
A **constituent formed by two affixes will generally be morphosemantically incoherent**:
- both take arguments of some specific semantic types
- both impose semantic and lexical constraints on the output

Semantic deletion of the inner suffix (allosemy conditioned by the complex suffix structure) **resolves this incoherence**
I proposed semantic deletion for other putative instances of complex suffix formation: non-agentive adjectives containing the agentive deverbal suffix *-tel^{j}-* (Matushansky 2023b, 2024) and Slavic event nominals containing passive past participle suffixes (Matushansky 2025d)

If the formation of the complex suffix *-ow-a-* renders *-ow-* semantically null, **complex suffix structures will not involve *-ow-* functioning as a verbalizer**

Apparent problem: the non-dominant pre-*ow* pattern:

(21)



The 151 pre-*ow* verbs are based on 38 stems, 35 of which can be argued to denote events:
- 16 are deverbal
- 5 involve cranberry roots
- 3 are adjectival
- 11 correspond to event- or state-denoting nominal stems

This suggests that *-ow-* need not be the source of their event semantics and can be regarded as a purely syntactic verbalizer with no semantic role
Same would be needed for *-stv-*, requiring it to have event semantics and merge iteratively (contra the Appendix)

6.3.1 The formal role of *-ow-*

Gladney 1982, Itkin 2014, Zinova & Filip 2015, Piperski 2018, among others: many *ow*-verbs are biaspectual

Table 3: The proportion of biaspectual *-ow-* verbs

	unprefixed	biaspectual	%bi
-stv-ow-a-	280	4	1.43%
-ow-a-	397	57	14.36%
-ir-ow-a-	765	526	68.76%
-iz-ow-a-	105	96	91.43%
-iz-ir-ow-a-	201	187	93.03%
-fic-ir-ow-a-	40	40	100.00%

The suffix *-ow-* is the only one that derives biaspectual verbs in Slavic

Whichever suffixes precede it, *-ow-* remains biaspectual

Intuition: loan suffixes do not have the formal [α perfective] feature, -*ow*- converts the semantic telicity of a loan stem (and its arguments) into the formal Slavic [α perfective]
Important: the addition of a prefix may fail to affect the perfectivity of an -*ow*- verb (although such cases are not the default: out of the 904 biaspectual verbs 105 are prefixed)

And this is why these verbs are biaspectual: their aspect is a semantic feature

[to be continued]

6.3.2 The semantic role of -*iz*-

Both -*fic*- and -*iz*- have clear semantic import, yet cannot be classified as verbalizers:

- treating them as verbalizers (v_{CAUS}) leaves open what -*ir*- and -*ow*- are needed for
- given (a) that loan event nominals in -*acij*- can also be formed from verbal stems not containing -*iz*- and -*fic*- and in fact, (b) that -*ir*- and -*ow*- must be absent from such event nominals, verbalization no longer appears as a single one-step process

Loan nominals in -*acij*- are identified as event nominals even in the absence of a corresponding verb (and in fact, can diachronically precede the appearance of such a verb)

The Ruys conjecture (Eddy Ruys, p.c.): -*iz*- as a formant of the result state:

> Suppose ***-iz-* creates states that result from some prior event** (cf. Beavers et al. 2017, Koontz-Garboden & Beavers 2017, Beavers & Koontz-Garboden 2012, 2020 on the semantics of verbal roots)

If the lexical meaning of -*iz*- presupposes the existence of the causing event:

- *iz*-stems cannot function anywhere except in the context of -*ir*-, -*ow*- or -*acij*- (i.e., with further "verbalization")
- the eventive component of the lexical meaning -*acij*- would enable it to function as the creator of event nominals with or without -*iz*-
- -*ir*- would be the verbalizer, v_{DO}, yielding the traditional transitive or unergative and change-of-state or activity, in function of what it combines with

[to be continued]

7 CONCLUSION AND DIRECTIONS FOR FUTURE RESEARCH

Russian verb formation provided some arguments for the existence of complex suffixes

Evidence came from the variable accentual dominance of the suffix -*ow*-, both when it is the only verbalizer and in conjunction with the loan suffix -*ir*-

We have also seen that the loan suffixes -*ir*- and -*iz*- do not have the same semantic import:

- -*iz*- (and -*fic*-) are causative suffixes deriving transitive change-of-state verbs
- -*ir*- does not seem to have any semantic import (beyond verbalization)

A structural approach to verbalization has been floated, with the interpretation of a verbalizer dependent on the configuration it appears in:

- semantic deletion in a complex suffix
- causative formation if composing with an event- or state-denoting base
- simple verbalizer with non-eventive bases

Not addressed here: the issue of native nominalizations on -*k*$_a$-:

(38) a. buksóvka ‘skidding’ (cf. *buksovát*^{j} ‘to skid’) impossible for pre-*ow* verbs
b. stažiróvka ‘internship’ (cf. *stažirovát*^{j}*s*^{j}*a* ‘to be an intern’) okay for post-*ow* verbs
c. fokusiróvka ‘focusing’ (cf. *fokusírovat*^{j}*(s*^{j}*a)* ‘to focus’) okay for pre-*ow* verbs

Two issues: the uniform stress on -*ow*- in the derived nominal (indicative of iterative affixation) and the impossibility of -*k*$_a$- nominalizations for *ow*-verbs with pre-*ow* stress

Many questions remain, but I think the project looks promising

The hypothesis that complex affix formation has semantic and phonological effects may help in other instances of empty morphs/augments/extenders (ask me!)

This could yield a reanalysis of multifunctionality (i.e., of “category-free suffixes”), especially if one is willing to assume null categorizing heads

8 References

Aronoff, Mark. 1994. *Morphology by Itself*. Cambridge, MA: MIT Press.
Bauer, Laurie & Lieber, Rochelle & Plag, Ingo. 2013. *The Oxford Reference Guide to English Morphology*: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780198747062.001.0001.
Beavers, John & Everdell, Michael & Jerro, Kyle & Kauhanen, Henri & Koontz-Garboden, Andrew & LeBovidge, Elise & Nichols, Stephen. 2017. Two types of states: A cross-linguistic study of change-of-state verb roots. *Proceedings of the Linguistic Society of America* 38 (2), 1–15. https://doi.org/10.3765/plsa.v2i0.4094.
Beavers, John & Koontz-Garboden, Andrew. 2012. Manner and result in the roots of verbal meaning. *Linguistic Inquiry* 43 (3), 331–369. https://doi.org/10.1162/LING_a_00093.
Beavers, John & Koontz-Garboden, Andrew. 2020. *The Roots of Verbal Meaning*: Oxford University Press. https://doi.org/10.1093/oso/9780198855781.001.0001.
Bernshteyn, Samuil Borisovich. 1974. *Очерк сравнительной грамматики славянских языков. Чередования. Именные основы [A Sketch of a Comparative Grammar of Russian Languages. Alternations. Nominal Stems]*. Moscow: Nauka.
Bochner, Harry. 1993. *Simplicity in Generative Morphology*. Berlin: De Gruyter Mouton.
Booij, Geert. 2010. *Construction morphology*. Oxford: Oxford University Press.
Creemers, Ava & Don, Jan & Fenger, Paula. 2015. Stress and categorial flexibility of affixes as a consequence of morphological structure. In Bui, Thuy & Özyıldız, Deniz (eds.). *North East Linguistic Society (NELS) 45 vol. 1*, 165–179. Amherst, MA: UMass, GSLA.
Creemers, Ava & Don, Jan & Fenger, Paula. 2018. Some affixes are roots, others are heads. *Natural Language & Linguistic Theory* 36 (1), 45–84.
Don, Jan & Sleeman, Petra & Westveer, Thom. 2015. Three types of suffixes in French: discarding the learned/non-learned distinction. In Köhnlein, Björn & Audring, Jenny (eds.). *Linguistics in the Netherlands 2015*, 33–47. Amsterdam: John Benjamins.
Gardani, Francesco. 2015. Affix pleonasm. In Müller, Peter O. & Ohnheiser, Ingeborg & Olsen, Susan & Rainer, Franz (eds.). *Word-formation: An International Handbook of the Languages of Europe*, vol. 1, 537–550. Berlin, München, Boston: De Gruyter Mouton. https://doi.org/10.1515/9783110246254-032.
Garde, Paul. 1968a. *L'accent*. Paris: Presses Universitaires de France.
Garde, Paul. 1968b. Les propriétés accentuelles des morphèmes dans les langues slaves. *Revue des Études Slaves* 47 (1–4), 29–37, https://www.persee.fr/doc/slave_0080-2557_1968_num_47_1_1954.

Garde, Paul. 1998. *Grammaire russe: phonologie et morphologie* [2nd edition]. Paris: Institut d'études slaves. (First published in 1980).
Gladney, Frank Y. 1982. Biaspectual verbs and the syntax of aspect in Russian. *The Slavic and East European Journal* 26 (2), 202–215. https://doi.org/10.2307/308089.
Halle, Morris. 1973. The accentuation of Russian words. *Language* 49, 312–348.
Haspelmath, Martin. 1993. The diachronic externalization of inflection. *Linguistics* 31 (2), 279−309.
Haspelmath, Martin. 1995. The growth of affixes in morphological reanalysis. In Booij, Geert & Marle, Jaap van (eds.). *Yearbook of Morphology 1994*, 1−29. Dordrecht: Kluwer.
Hockett, Charles F. 1947. Problems of morphemic analysis. *Language* 23, 321–343.
Itkin, Ilja B. 2007. Russkaja morfonologija [Russian morphonology]. Moscow: Gnozis.
Itkin, Ilja B. 2014. Vidovaja xarakteristika russkix glagolov: net ničego prošče? [The aspectual characterization of Russian verbs: nothing simpler? ИВ РАН/школа "Муми-Тролль"/НИУ ВШЭ.
Kiparsky, Paul & Halle, Morris. 1977. Towards a reconstruction of the Indo-European accent. In Hyman, Larry M. (ed.). *Studies in Stress and Accent*, 209–238. Los Angeles: University of Southern California.
Koontz-Garboden, Andrew & Beavers, John. 2017. Change of state verbs and the semantics of roots. In Kaplan, Aaron & Kaplan, Abby & McCarvel, Miranda K. & Rubin, Edward J. (eds.). *Proceedings of the 34th West Coast Conference on Formal Linguistics*, 347–354. Somerville: Cascadilla Proceedings Project.
Krott, Andrea & Libben, Gary & Jarema, Gonia & Dressler, Wolfgang & Schreuder, Robert & Baayen, Harald. 2004. Probability in the Grammar of German and Dutch: Interfixation in Triconstituent Compounds. *Language and Speech* 47 (1), 83–106. https://doi.org/10.1177/00238309040470010401.
Lehmann, Christian. 2005. Pleonasm and hypercharacterisation. In Booij, Geert & van Marle, Jaap (eds.). *Yearbook of Morphology 2005*, 119−154. Dordrecht: Springer.
Lightner, Theodore M. 1965. Segmental Phonology of Contemporary Standard Russian. Doctoral dissertation, MIT.
Luís, Ana & Spencer, Andrew. 2005. A paradigm function account of 'mesoclisis' in European Portuguese. In Booij, Geert & van Marle, Jaap (eds.). *Yearbook of Morphology 2004*, 177–228. Dordrecht: Kluwer.
Marvin, Tatjana. 2002. Topics in the stress and syntax of words. Doctoral dissertation, MIT.
Matushansky, Ora. 2023a. Ablaut and transitive softening in the Russian verb. In Elkins, Noah & Hayes, Bruce & Jo, Jinyoung & Siah, Jian-Leat (eds.). *Supplemental Proceedings of the 2022 Annual Meeting on Phonology* Washington, DC: Linguistic Society of America, https://journals.linguisticsociety.org/proceedings/index.php/amphonology/article/view/5446.
Matushansky, Ora. 2023b. Suffixal complexes and semantic deletion. (Paper presented at *MorrisHalle@100, MIT*, September 8–10, 2023).
Matushansky, Ora. 2024. Affix conglutination as allosemy in a complex affix. (Paper presented at *Formal Diachronic Semantics 9*, Bologna, November 28–29, 2024).
Matushansky, Ora. 2025a. On the constituent structure of augmented plurals in Russian. *Languages* 10 (12), 304. https://doi.org/10.3390/languages10120304.
Matushansky, Ora. 2025b. Russian *e*-verbs and thematic vowel change. *Journal of Slavic Linguistics* 33 (FASL 32), 1–19. https://doi.org/https://ojs.ung.si/index.php/JSL/article/view/553.
Matushansky, Ora. 2025c. Russian verbal stress retraction as induced unstressability. In Gehrke, Berit & Lenertová, Denisa & Meyer, Roland & Seres, Daria & Szucsich, Luka & Zaleska, Joanna (eds.). *Advances in Formal Slavic Linguistics 2022*, 347–395. Berlin: Language Science Press.
Matushansky, Ora. 2025d. Things that say *nie!* (Paper presented at *Slavic Linguistics Society (SLS) 20*, Verona, September 10-12, 2025).
Melvold, Janis. 1989. Structure and stress in the phonology of Russian. Doctoral dissertation, MIT.
Nikitina, Tatjana G. 2003. Molodežnyj slèng: tolkovyj slovar' [Youth Slang: A Dictionary]. Moscow: Astrel'.

Piperski, Alexander. 2018. The grammatical profiles of Russian biaspectual verbs. In Kopotev, Mikhail & Lyashevskaya, Olga & Mustajoki, Arto (eds.). *Quantitative Approaches to the Russian Language*, 115–136. London; New York: Routledge.
Plénat, Marc. 2005. *Rosinette*, *cousinette*, *starlinette*, *chipinette*. Décalage, infixation et épenthèse devant *-ette*. In Choï-Jonin, Injoo & Bras, Myriam & Dagnac, Anne & Rouquier, Magali (eds.). *Questions de classification en linguistique : méthodes et descriptions. Mélanges offerts au Professeur Christian Molinier*, 275–298. Berne: Peter Lang.
Plénat, Marc & Roché, Michel. 2004. Entre morphologie et phonologie : la suffixation décalée. In *Lexique*, ed. by Corbin, Danielle & Temple, Martine, 159–198.
Revithiadou, Anthi. 1999. *Headmost Accent Wins: Head Dominance and Ideal Prosodic Form in Lexical Accent Systems*. LOT Dissertation Series 15. The Hague: Holland Academic Graphics.
Roché, Michel. 2015. Interfixes in Romance. In Müller, Peter O. & Ohnheiser, Ingeborg & Olsen, Susan & Rainer, Franz (eds.). *Word-Formation. An International Handbook of the Languages of Europe*, 551–568. Berlin: De Gruyter Mouton. https://doi.org/10.1515/9783110246254-033.
Shapiro, Michael. 1967. The stress of Russian substantival composita. *Scando-Slavica* 13 (1), 197–209. https://doi.org/10.1080/00806766708600474.
Shvedova, Natalia (ed.) 1980. Russkaja grammatika [Russian Grammar]. Moscow: Nauka.
Simonović, Marko & Arsenijević, Boban. 2020. Syntax predicts prosody: Multi-purpose morphemes in Serbo-Croatian. In Marušič, Franc & Mišmaš, Petra & Žaucer, Rok (eds.). *Advances in Formal Slavic Linguistics 2017*, 277–304. Berlin: Language Science Press.
Simonović, Marko & Mišmaš, Petra. 2020. √ov is in the air: the extreme multifunctionality of the Slovenian affix *ov*. *Linguistica* 60 (1), 83–102. https://doi.org/10.4312/linguistica.60.1.83-102.
Sokolova, Svetlana & Birzer, Sandra & Ignateva, Aleksandra & Kibisova, Elizaveta. 2025. Suffix diversity: investigating the morphological landscape of Russian loan verbs. *Russian Linguistics* 49 (17), 1–30. https://doi.org/10.1007/s11185-025-09324-8.
Soukka, Maria. 2000. *A descriptive grammar of Noon: A Cangin language of Senegal*. Munich: LINCOM Europa.
Stump, Gregory T. 2017a. Polyfunctionality and the variety of inflectional exponence relations. In Kiefer, Ferenc & Blevins, James & Bartos, Huba (eds.). *Perspectives on Morphological Organization: Data and Analyses*, 9–30. Leiden: Brill. https://doi.org/10.1163/9789004342934_003.
Stump, Gregory T. 2017b. Rule conflation in an inferential-realizational theory of morphotactics. *Acta Linguistica Academica* 64 (1), 79–124. https://doi.org/10.1556/2062.2017.64.1.3.
Stump, Gregory T. 2019. Some sources of apparent gaps in derivational paradigms. *Morphology* 29 (2), 271–292. https://doi.org/10.1007/s11525-018-9329-z.
Stump, Gregory T. 2022. Rule combination, potentiation, affix telescoping. In Ussishkin, Adam & Sims, Andrea D. & Parker, Jeff & Wray, Samantha (eds.). *Morphological Diversity and Linguistic Cognition*, 282–306. Cambridge: Cambridge University Press.
Stump, Gregory T. 2023. *Morphotactics: A Rule-Combining Approach*. Cambridge: Cambridge University Press. https://doi.org/10.1017/9781009168205.
Wohlgemuth, Jan. 2009. *A Typology of Verbal Borrowings*. Berlin & New York: Mouton de Gruyter.
Zaliznjak, Andrey A. 1985. Ot praslavjanskoj akcentuacii k russkoj [From Proto-Slavic accentuation to Russian one]. Moscow: Nauka.
Zaliznjak, Andrey A. 2010. Grammatičeskij slovar' russkogo jazyka [Grammatical Dictionary of the Russian Language]. Moscow: AST.
Zinova, Yulia & Filip, Hana. 2015. Biaspectual verbs: a marginal category? In Aher, Martin & Hole, Daniel & Jeřábek, Emil & Kupke, Clemens (eds.). *TbiLLC 2013: Logic, Language, and Computation*, 310–332. Berlin, Heidelberg: Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-662-46906-4_18.

A Appendix

A.1 Do we need complex suffixes for these facts?

Recall, our motivation for complex suffixation has been phonological (accentual dominance). Setting aside the potential semantic payoffs (which remain conjectural at this point), what are the competing proposals (that I am aware of)?

Several **alternative takes on what makes a suffix accentually dominant**:

- Revithiadou 1999: syntactic heads are prosodically dominant
  No thematic suffix of Russian is accentually dominant. Arguable verbalizers (the onomatopoeic *-k-*, the deadjectival *-e^{j}-*, the sound-emission *-ot-* (Bernshteyn 1974:61-62, Itkin 2007:204-205), and the semelfactive/single-act *-(a)nu-*) are, but *-ow-*, as we have seen above, need not be
- Marvin 2002: syntactic phase heads are dominant
  Same as above. A theory must be developed that would explain the variable phase status of *-ow-* in both stem-based and *ir*-based verbalizations
- Simonović & Arsenijević 2020: derivational suffixes are dominant, inflectional are not (on the basis of Serbo-Croatian)
  The examples that S&A give (the nominalizer *-ost-*, the adjectivizers *-at-* and *-en-*, which also create passive past participles, and the nominalizer *-VVje-*) are not really inflectional in any conventional sense. So the opposite might be true: the difference in behavior is due to complex suffix formation (and I argued for just this with respect to their last case, Matushansky 2025d)
- Creemers & Don & Fenger 2015, Don & Sleeman & Westveer 2015, Creemers & Don & Fenger 2018: affixes that merge with already categorized constituents are not accentually dominant
  The cases we have looked at involve a potentially categorially flexible suffix (*-ow-*) that can merge with both categorized (nominal) and arguably uncategorized (loan) stems and be accentually (non)-dominant in both environments

Is [owa] a complex suffix (*-ow-a-*) or a new simple one?

- the thematic suffix is a non-productive one
- the suffix *-ow-* does not have clear independent existence (depending on whether it is treated as identical to the adjectival *-ow-*, see Simonović & Mišmaš 2020 for Slovenian)
- in the present-tense paradigm (where [owa] is "replaced" by [uj]) this phonological string is not even clearly decomposable
- has this phonological string been reanalyzed?

Issues to address (that I am not prepared to tackle):

- What is then the status of the new suffix *-owa-*/*-uj-*? Is it a verbalizer or a thematic suffix?
- If the former, then Russian has another verb class without a thematic suffix. What does this entail?
- If the latter, does this mean that thematic suffixes are verbalizers?

There is already a lot of contention regarding Slavic thematic suffixes, and treating [owa] as a single suffix complicates things even further

My perception for now is that my proposal is heuristically the simplest one

A.2 The thematic suffix *-a-/-i-*

Independent evidence for the thematic suffix *-a-/-i-* comes from a closed class of verbs that do not involve any overt verbalizers and whose final consonant undergoes a mutation in the present tense traditionally known as transitive softening (henceforth, TS verbs):

(39) a. maz-a-l ‘smear-TH-PAST.MSG’ mažet < maz-j-et ‘smear-TH-PRES.3SG’
b. alk-a-l ‘crave-TH-PAST.MSG’ alčet < alk-j-et ‘crave-TH-PRES.3SG’

This suffix is underlyingly accented, as shown by the fact that stress is never inflectional in the past tense (Matushansky 2025c)

Table 4: Accentual classes for the 1st conjugation TS suffix *-a-/-i-*

	stem accentuation	**accented** PRES-3SG	**accented** PRES-1SG	**accented** PAST-FSG	**unaccented** PAST-PL
a.	accented: *-maz-* ‘smear’	*máž-e-t*	*máž-u*	*máz-a-l-a*	*máz-a-l-i*
b.	unaccented (1sg): *-vʲaz-* ‘tie’	*vʲáž-e-t*	*vʲaž-ú*	*vʲaz-á-l-a*	*vʲaz-á-l-i*
c.	post-accenting: *-koleb-* ‘rock’	*koléblʲ-e-t*	*koléblʲ-u*	*koleb-á-l-a*	*koleb-á-l-i*

Stress variability shows that the thematic suffix *-a-/-i-*is not dominant

Melvold 1989: the [ova]/[uj] alternation arises from the interaction between the suffix *-ow-* and the thematic suffix *-a-/-i-*:

(40) a. torg**oval**/torg**uj**et ‘trade.PAST.MSG/PRES.3SG’ native
b. intrig**oval**/intrig**uj**et ‘intrigue.PAST.MSG/PRES.3SG’ loan

The alternation follows from the hypothesis that the thematic suffix *-a-/-i-* is subject to morphologically conditioned ablaut (Matushansky 2023a, 2025b) and the underlying representation of the suffix *-ow-* is underspecified permitting it to surface as [ov] before a vowel and as [u] before a consonant (Lightner 1965, Melvold 1989, Itkin 2007:147–148)

A.3 The semantics of the complex suffix *-stv-ow-a-*

Semantically, *-stv-ow-* verbs need not be derived from the corresponding *stv-* nouns

Many *stv-ow-* verbs have **no corresponding *stv-* nouns**:
Note the haplology of [st] in (41a, b), also observed in Shvedova 1980:343

(41) a. vlástvovatʲ ‘to rule’ (*vlastʲ* ‘power’, #vlastvo)
b. učástvovatʲ ‘to take part’ (*častʲ* ‘part’, *účastʲ* ‘lot, fate’, *učástie* ‘participation’, ×*(u)častvo*)
c. sposóbstvovatʲ ‘to assist, further, contribute to’ (×*posobstvo*; *posobítʲ* ‘to relieve’, *posóbie* ‘allowance’, *posóbnik* ‘accomplice’; *spósob* ‘method’ is unrelated)

For others the corresponding noun has **the wrong semantics**:

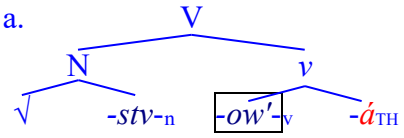
(42) a. proróčestvovatʲ ‘to prophecy’ (cf. *proróčestvo* ‘prophecy’, *prorók* ‘prophet’)
b. soveršénstvovatʲ ‘to perfect’ (cf. *soveršénstvo* ‘perfection’, *soveršénnyj* ‘perfect’)
c. suščestvovátʲ ‘to exist’ (cf. *suščestvó* ‘creature’, *súščij* ‘real, existing’)

Yet the suffix *-stv-* may have an eventive interpretation:

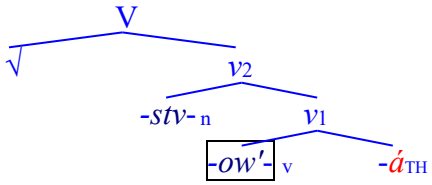
(43) a. judofóbstvo ‘antisemitism; antisemitic behavior’ (from *judofób* ‘antisemite’)
b. molodéčestvo ‘display of courage; boldness’ (from *mólodec* ‘a brave, hero’)

Recall the two constituencies in (26):

(26) a.



b.



Remember, a **complex suffix will generally be morphosemantically incoherent**. In (26b):

- -*stv*- creates abstract nouns
- -*ow*-*a*- creates verbs (even if only on the syntactic level)

> Semantic deletion of -*stv*- (allosemy conditioned by -*ow*-*a*- in the complex suffix structure) resolves this incoherence but if both -*stv*- and -*ow*- are semantically null, where does the event semantics come from?

If -*ow*- is semantically deleted inside the complex suffix -*ow*-*a*- (section 6.3), how come verbs in -*stv*-*ow*- are verbs?

Several options:

(i) The structure is always (26a), the -*stv*- noun is forced into an event reading, like in (43), in the context of the complex suffix -*ow*-*a*-

(ii) v_1 in (26b) is semantically null, so -*stv*- retains its semantics, but forced to yield an eventive reading, as in (i). Problem: if in a complex suffix where one of the sisters is semantically null (as -*a*-/-*i*- is in v_1), semantic deletion is not forced, there will be no reason to assume that v_1 is semantically null

(iii) under the assumptions in (ii), if -*a*- is semantically null, -*ow*- can retain its meaning; the semantics of -*stv*- can be deleted. Problem: how come -*ow*-*a*- is semantically null in the context of -*ir*- and -*iz*-?

The option (i) seems to be the least costly for now

A.4 Exceptions in the pre-*ow* accentual pattern

Verbs formed with -*ow*- show either pre-*ow* stress or post-*ow* stress, with one exceptional stem retaining stem-initial stress:

(44) pám^{j}atovat^{j} ‘bear in mind’ (*pam^{j}atovát^{j}* also attested), zapám^{j}atovat^{j} ‘to forget’ (2)

(44) is the sole evidence for the non-dominance of -*ow*- in the pre-*ow* accentual pattern, since most of the verbal stems in this pattern have stem-final stress

Five exceptions (45):

- four non-monosyllabic stems (45a–d) with stem-initial stress in the corresponding noun and stem-final stress in the *ow*-verb (suggesting that the pre-accenting -*ow*- is dominant)
- one disyllabic stem (45e), where stress is retained in the stem-penultimate position (which is incompatible with accentual dominance)

Non-monosyllabic stems where the non-stem-final nominal stress is…

(45) a. zavídovat^{j} ‘to envy’ (cf. *závist*^{j} ‘envy’) stem-final (shifted)
b. propovédovat^{j} ‘to preach’ (cf. *própoved*^{j} ‘sermon’)
c. ispovédovat^{j} ‘to profess; confess (tr.)’ (cf. *íspoved*^{j} ‘confession’)
d. trapézovat^{j} ‘to have a meal (arch.)’ (from *trápeza* ‘meal (arch.’)
e. pám^{j}atovat^{j} ‘bear in mind’ (from *pám^{j}at^{j}* ‘memory’) retained

One unaccented adjectival root may give rise to stem stress on the verb (very unclear case):

(46) a. milovát^{j} ‘to caress’ (cf. mil/mílo/milá ‘nice.MSG/NSG/FSG’)
b. mílovat^{j} ‘to grant pardon to’ (cf. mílost^{j} ‘mercy’)

All other non-monosyllabic stems have stem-final stress in corresponding nouns

Two options:
- (45a–d) represent the default, (45e) needs to be explained
- **(45e) represents the default, (45a–d) need to be explained** ← my choice

Claim: in (45a–c) the nouns are deverbal event nominals, their initial stress is due to the suffix (a dominant unaccented *-ĭ-*, still synchronically active and creating abstract nouns from roots, e.g., *xton*^{j} ‘something chthonic’)
Potential alternative explanation for (45e): the final syllable of this stem is unaccentable (underlyingly *pamĭnt*)
If *-ow-* can also be pre-accenting, (45a–d) and (46b) receive a natural explanation

Two options: allomorphy/ambiguity (two different suffixes) vs. different structures ((23a) vs. (23b)) with no effect on dominance

<u>Against allomorphy/ambiguity</u>

Reasonable hypothesis: two suffixes *-ow-*, a pre-accenting one and a post-accenting one

Problems: they can only be distinguished by the stress pattern:

- there is no obvious semantic distinction associated with the stress pattern (no clear meaning distinctions, no difference with respect to transitivity or Aktionsart)
- the [ow]/[u] allomorphy is very atypical otherwise (the adjectivizer *-ow-* does not have it, the verbal [nu]/[nov] allomorphy only characterizes a few nouns)
  Conversely, it is also operative for verbs with roots in [ow], which makes the process potentially limited to verbs
- biaspectuality does not characterize any other thematic or verbal suffix of Russian
  The semelfactive *-nu-* vs. the mutative *-nu-* contrast is semantic, as well as prosodic
- prefixation may retain biaspectuality for both accentual classes

The issue of how the choice is made would remain, so a non-structural analysis does not solve anything

<u>Against dominance retention inside a complex suffix</u>

Possibility: *-ow-* is post-accenting in the structure (18a) and pre-accenting, in (18b)

One property should be present underlyingly and the other one, derived from it

Assuming a floating accent on the unaccentable *-ow-* predicts that it is pre-accenting in (18a), where it merges with the stem, and post-accenting in (18b), where it merges with the thematic suffix

This is the correct behavior, but it does not account for a number of generalizations:

- there is no reason to assume accentual dominance in the structure (18b), so some independent explanation is necessary to account for the fact that **all loan stems lose their underlying accents**
- *i*-verbs show that loan stems do not have to lose their accent in verbalization

Solution: unlike the *-ĭj-a-* complex suffix (non-dominant), the *-ow-a-* complex suffix inherits the dominance of *-ow-*. Why? Maybe because *-ow-* is the head here in some sense?
-a-/*-i-* has no semantics, so complex suffix formation requires no loss of meaning

Furthermore, verbs in *-stv-ow-* clearly retain the stress of their base, which means that *-ow-* is not dominant here
Many loan stems in this class, but they retain their stress

For it to be non-dominant, it would have to obligatorily form a complex suffix with *-stv-*, which means that (a) these verbs will never involve derivation with [[√-*stv*]-*ow*], (b) some alternative explanation is needed for why *-ow-* has three accentuation patterns

A.5 A few more notes on *-ow-k$_a$-* nominalizations

170 event nominals in *-k$_a$-*, formed from transitive, intransitive or *se*-marked bare *ow*-verbs:
Of course, *-k$_a$-* is a simplification, the underlying representation of the suffix is *-ŭk-* [+F], and it has many other uses

(47) a. risóvka [rʲiˈsofkə] ‘posing, showing off’ (from *risovátʲsʲa* ‘to show off’)
b. buksóvka [bukˈsofkə] ‘skidding’ (from *buksovátʲ* ‘to skid’)
c. pressóvka [prʲisˈsofkə] ‘pressing’ (from *pressovátʲ* ‘to press’)

Only verbs with post-*ow* stress (on the thematic suffix *-a-*/*-i-*) permit this formation

Likewise, loan event nominals in *-acij-* (which do not contain *-ow-*) are also possible only for verbs with post-*ow* stress

This does not seem to be **a restriction on the position of the stress or on the structure** of the motivating verbal base:

- no verb containing the suffix *-stv-* forms event nominals in *-k$_a$-* (9 verbs with stress on the thematic suffix included)
- verbs containing the suffixal complex *-ir-ow-* can form event nominals in *-k$_a$-* (155) irrespective of the stress
- conversely, only pre-*ow* verbs in *-ir-ow-* have loan nominals in *-acij-* (206)

There are some historical explanations for this, but I have no synchronic one

Do nominals in *-ow-k$_a$-* contain an intermediate adjectival step (cf. *vintóvka* ‘rifle’ from either *vint* ‘screw’ (unlikely) or *vintovój* ‘screw ADJ’)?

Strikingly, **in denominal nominals in *-ow-k$_a$-* stress assignment is not dominant**, suggesting that it is structurally different from the deverbal *-ow-k$_a$-*… but in the wrong direction!

This is where I would like to consider…

A.6 Stem-final stress in compounds

Deverbal compounds may force stem-final stress (Shapiro 1967; observed by Zaliznjak, too)

Might the pre-*ow* pattern be, in fact, dominant and result from compound formation (or stem-final stress in compound formation result from complex suffixation)?

A.7 Note on data sources

All counts based on Zaliznjak 2010, hesitating between the three options:

- **counting the verbs**: prefixed and unprefixed verbs with the same stem counted as separate verbs; *se*-marked and unmarked verbs not collapsed
  Problem: many doublets, since prefixation may contribute aspectual information only
- **excluding prefixed stems**: prefixation does not affect the accentual pattern (except for the accented prefix -*vʹ*-), so only unprefixed stems are counted
  Problems: some verbs exist in the prefixed form only (e.g., *soglasovátʲ* ‘to coordinate’); prefixation may change the lexical semantics and argument structure of the verb (e.g., *slédovatʲ* ‘to follow’, *obslédovatʲ* ‘to examine’; only the latter is transitive, the former takes a PP)
- excluding *se*-marked verbs: only unmarked unprefixed stems are counted
  Problem: some verbs exist in the *se*-marked form only (e.g., *lʲubovátʲsʲa* ‘to feast one’s eyes on’)

All choices are problematic for one reason or another

And some cases are difficult to classify, as it is not obvious how to segment a given -*ow*- or -*ir*-, which is why the numbers are in flux

