

SUFFIXAL COMPLEXES AND SEMANTIC DELETION

M100, MIT, September 8-10, 2023

1. AFFIXAL COMPLEXES AND COMPLEX AFFIXES

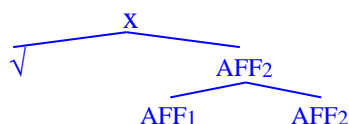
An **affixal complex** (pretheoretical notion) is a combination of independently motivated affixes with a set meaning, which may not seem to arise from the combination of the meanings of the composing affixes

An affixal complex that is a constituent can be called a **complex affix**

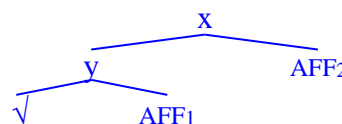
Circumfixes would therefore not seem to be complex affixes

Empirical question: **are there complex affixes?**

(1) a. affixal constituent



b. iterative affixation



This talk: the Russian suffixal complex *-telʲn-* is a complex deverbal adjectivizing suffix

2. AGENTIVE SUFFIX *-TELʲ-*: THE EMPIRICAL INTRO

Strictly obeys the **External Argument Generalization** of Levin and Rappaport Hovav 1988 and Rappaport Hovav and Levin 1992:

Out of the 730 *-telʲ-* nouns in Zalaznjak 2010 275 are inanimate, 455 are animate

- agents/experiencers (2) and instruments (3)
- no patients, themes, locatives, etc. (unlike the English *-er*; no *diner* (restaurant) or *sleeper* (car) with *-telʲ-*)

(2) a. *lʲubʲi-tʲ* ‘love-IMPV-INF’

b. *lʲubʲi-telʲ* ‘an amateur’

(3) a. *viklʲučʲá-tʲ* ‘turn off.IMPV-INF’

b. *viklʲučʲá-telʲ* ‘a light switch’

Idiomatic *-telʲ-* nouns are very few (e.g., *nastojátelʲ* ‘abbot’ ← *nastojátʲ* ‘to insist, persist’)

The suffix can attach only to a thematic verb (see section 7.1)

In isolation the suffix *-telʲ-* has two alloemes: [+animate] (agents, experiencers) and [-animate] (instruments, facilitators)

Important: **animacy is a grammatical feature in Russian**

Ambiguity is possible (so animacy cannot be derived just from the semantics of the verb):

Out of the 730 *-telʲ-* nouns in Zalaznjak 2010 24 (48) are ambiguous

(4) *deržatelʲ* ‘holder’

a. animate: holder of securities

b. inanimate: clamp, clutch, holder

A semantically inanimate NP can be grammatically animate:

- (5) *investicii v kompanii- proizvoditelej èlektromobilej*
investments into companies.ACC=NOM producers.ACC=GEN electric.cars.GEN
investments into companies producing electric cars

This suggests that animacy is a grammatical feature added at the level of a noun (though it can be removed at the level of an NP, cf. Mel’čuk 1980a, b)

Two options (in addition to homonymy, which is highly unlikely):

- (6) a. **affixal constituent** b. **iterative affixation**
- ```

graph TD
 n1[n] --- VTH[V-TH]
 n1 --- n2[n]
 n2 --- telj[-telj-]
 n2 --- animate[+ANIMATE]

```

```

graph TD
 n1[n] --- n2[n]
 n1 --- animate[+ANIMATE]
 n2 --- VTH[V-TH]
 n2 --- telj[-telj-]

```

No obvious reason to choose one structure over the other

### 3. ACTOR ADJECTIVIZATION: THE COMPLEX SUFFIX *-TELJ-ĬN-*

Adjectives in (7) can be argued to contain two independently motivated productive suffixes: the actor nominalizer *-telj-* (2)-(3) and the general adjectivizer *-ĭn-* (8)-(9):

Evidence for a (front) yer in both *-ĭn-* and *-tel-ĭn-* adjectives comes from their short forms, where the suffixal yer is lowered (vocalized) before the yer of the MSG ending

- (7) a. *starát'sja* 'to try hard' → *stará-tel'ĭn-ij* 'assiduous' (short form, msg: *starátelen*)  
 b. *prostít'i* 'to forgive' → *prostí-tel'ĭn-ij* 'forgivable' (short form, msg: *prostítelen*)

The suffix *-ĭn-* is a "pure categorizer": no lexical meaning beyond adjective formation:

- (8) a. *pil'i* 'dust'                      (9) a. *komp'úter* 'computer'  
 b. *pil'-ĭn-ij* 'dust-ADJ-MSG'                      b. *komp'úter-ĭn-ij* 'computer-ADJ-MSG'

However, simple iterative composition would give the wrong result: the intermediate noun may be absent or have the wrong meaning:

- (10) a. *starát'sja* 'to try' → *starátel'* 'prospector' → *stará-tel'ĭn-ij* 'assiduous'  
 b. *poznaváti* 'cognize.IMPFV.INF' → *\*poznavátel'* → *poznavátel'ĭn-ij* 'cognitive'

Itkin and Leont'eva 2019, traditional grammar books: the simplex suffix *-tel'ĭn-*

Haspelmath 1995, citing Kiparsky 1975: historically, the complex underlying structure *-telj-ĭn-*, then *affix telescoping*: formation of a complex affix

I will argue for a synchronic underlying complex affix *-telj-ĭn-*

#### 3.1. The A0A argument for a suffixal complex

458/696 *-tel'ĭn-* adjectives in Zaliznjak 2010 have no intermediate *-telj-* noun (the A0A pattern):

- (11) a. *sravníti* 'to compare' → *\*sravnítel'* → *sravnítel'ĭn-ij* 'comparative'  
 b. *poznaváti* 'cognize.IMPFV.INF' → *\*poznavátel'* → *poznavátel'ĭn-ij* 'cognitive'

DM (Halle 1973, Marantz 2023): [–lexical insertion] (needed anyway, e.g., for *\*admissal*)

#### 3.2. The ABA argument for a suffixal complex

The intermediate *-telj-* noun exists but has the wrong semantics (the ABA pattern):

- (12) a. *osnováti* 'to found' → *osnovátel'* 'founder' → *osnovátel'ĭn-ij* 'substantial'  
 b. *starát'sja* 'to try hard' → *starátel'* 'prospector' → *stará-tel'ĭn-ij* 'assiduous'

Anagnostopoulou and Samioti's (non)compositionality generalization:

"When affixes attach directly to the root, idiosyncratic meanings may arise. When affixes attach outside category defining heads, the result is a meaning predictable from the meaning of the stem." (Anagnostopoulou and Samioti 2014:85)

But idiomaticity is possible in complex syntactic structures, like *Tasmanian tiger* or *take to the cleaners*

**The ABA pattern is also attested for allosemy:** the noun is agentive, the adjective isn't:

- (13) a. *izbiráti* 'to elect' → *izbirátelj* 'elector, voter'  
 b. *izbirátel'nij* 'electoral, election (attr.), voting' ≈ 'related to voting/election'  
 c. *izbiratel'nij učastok* 'polling station'  
 d. *izbiratel'nij b'ulleten'* 'voting paper'

Marantz 2013: locality constraints on meaning changes

"What is ruled out is semantic flip-flopping—the choice of one meaning in the context of the first category head, with a switch back to a different meaning at the next category head." (Marantz 2013:105)

Predicted to be impossible: ABA (no flip-flops!)

**The adjective is semantically linked to the verb rather than to the noun**

### 3.2.1. The role of animacy

The suffix *-in-* strongly disprefers [human] bases (support from the corpus study in Bobkova 2022, even though it does not control for the change in interpretation when the base is animate): Vinogradov 1952:346 treats this as a restriction on animates, but notes a few exceptions, such as *konnij* 'horsed' or *ribnij* 'fish'. However, animal names generally get adjectivized with the suffix *-in-* and *-j-*

- (14) a. *diréktorskij/\*direktornij* ← *diréktor* 'manager'  
 b. *načál'ničeskij/\*načal'ničnij* ← *načál'nik* 'supervisor'  
 c. *gráfskij/\*grafnij* ← *graf* 'count'

Animate *-telj-* nouns are adjectivized with the suffix *-isk-* rather than with the suffix *-in-*:

- (15) a. *učí-telj-sk-ij* 'having to do with teachers', %*učí-telj-n-ij* 'didactic (obs.)'  
 b. *rodí-telj-sk-ij* 'parental', *rodí-telj-n-ij* 'genitive'  
 c. *stará-telj-sk-ij* 'having to do with prospecting', *stará-[tel'n]-ij* 'assiduous'

The animacy restrictions account for (13): neither structure in (6) can be used, it is a missing link case:

- (16) a. *izbirátelj* 'elector, voter': [[V-telj]<sub>N</sub>-Ø<sub>ANIM</sub>]<sub>N-ANIM</sub>  
 b. *izbirátel'nij* 'electoral, election (attr.), voting': [[V-telj]<sub>N</sub>-in]<sub>ADJ</sub>  
 c. [V-telj]<sub>N</sub>

The structure in (16c) is [–lexical insertion] (the missing base)

To circumvent this objection we need a *-tel'n-* **adjective** that is semantically **linked to the stem** rather than to the derived **inanimate** noun

### 3.2.2. The non-missing base

Iterative suffixation fails if **the adjective is not idiomatic while the noun is inanimate**:

- (17) a. *predoxraníti* 'to protect, preserve' → *predoxranítelj* 'electrical fuse, safety device'  
 → *predoxranítel'nij* 'preservative, preventive, protective'  
 b. *nosíti* 'to carry, wear, bear' → *nosítelj* 'carrier' (rocket carrier, information bearer)  
 → *nosítel'nij* 'wearable, transportable'

The inanimate meaning contributed by the suffix *-telj-* (actor or instrument) is not included in the meaning of the *-tel'n-* adjective

Also the choice of the meaning of the thematic verbal stem (is it a complex alloseme?) made by the suffix *-telʲ-* is a subset of the meanings available for the base verb *and* the *-telʲn-* adjective

This seems to be a case of ABA allosemy or “semantic flip-flopping”

**Solution: the suffixal complex *-telʲn-* is semantically vacuous here**, it is a pure categorizer

Actually, *-ʲn-* was already semantically vacuous, now *-telʲ-* also is

I will not discuss stem allosemy here, only suffix allosemy

### 3.3. Recap: embedded *-telʲ-* allosemy

The allosemy of *-telʲ-* in the context of *-ʲn-*:

- (i) **the animate alloseme** (treated here as a complex) is unavailable because *-ʲn-* does not combine with human nouns
- (ii) **the inanimate alloseme** permits adjectives with instrumental (agentive) meaning
- (iii) **the bleached alloseme** is semantically null yielding the effect of directly deverbal adjectivization

There is also **idiomaticity**: the suffixal complex yields an adjective with unpredictable meaning, but this option is often available for any suffix or combination of suffixes or a phrase

Are these options related to structure? Not necessarily

#### 3.3.1. Lack of the animate alloseme in *-telʲn-* adjectives

Baseline: *-telʲ-* has underspecified actor semantics enriched by the feature [+animate] for agents and other animates:

This is a simplification: given the External Argument Generalization, *-telʲ-* should be defined structurally as well

(18)  $\llbracket -telʲ- \rrbracket = \lambda e . \lambda x . \text{INITIATOR}(x, e)$

In the absence of the feature [+animate], the interpretation of an actor noun is instrumental, and the interpretation of the corresponding adjective is underspecified for animacy:

- (19) a. *vospitátelʲ* ‘educator’ → *vospitátelʲnʲj* ‘educational’  
b. *spasátelʲ* ‘rescuer’ → *spasátelʲnʲj* ‘rescue (attr.), life-saving’

This interpretation can be easily obtained with iterative affixation

There are exceptions interpreted as “related to or characteristic of the agent of V”, but they are not excluded because (18) is underspecified for animacy:

- (20) a. *pobedítelʲ* ‘victor, winner’ → *pobedítelʲnʲj* ‘victorious’  
b. *mečtátelʲ* ‘dreamer’ → *mečtátelʲnʲj* ‘dreamy’

These cases can be explained by the hypothesis that it is the verb itself that forces animacy on the external argument (which is not formally specified as animate)

Alternatively, we’re dealing with the semantically null (bleached) alloseme, which could yield agents as well

#### 3.3.2. Bleaching

→ **this is the crucial alloseme**

If *-telʲ-* can be semantically null, the adjective would remain deverbal but its connection to the event would be arbitrary (as expected, since the suffix *-ʲn-* is also semantically null):

- (21) a. *plávatel'nij* [bassejn] 'swimming [pool]' (*plávatí* 'swim.INF', \**plavatel'i*)  
b. *poznavátel'nij* 'cognitive' (*poznaváti* 'cognize.IMPFV.INF', \**poznavátel'i*)  
c. *želátel'nij* 'desirable' (*želáti* 'desire.IMPFV.INF', \**želátel'i*)

Itkin and Leont'eva 2019: any actant of the verb (except the indirect object) can be the external argument of the adjective, as can the event itself (see also Zvezdova and Gou 2013):

Is this evidence that datives are introduced by Appl<sup>0</sup>, which is higher than the subject?

- (22) a. *nastupatel'naja operacija* 'offensive operation' (operation identical to an attack)  
b. *obázaatel'noe upražnenie* 'obligatory exercise' (exercise obliged to be done)

The concrete meanings are always richer than the general rule (= "related to V-stem")

Two takes on the nature of a bleached alloseme (section 7.3):

- (a) the suffix *-ŷn-* triggers semantic deletion  
(b) a special alloseme is selected by the suffix *-ŷn-* in the context of certain roots

Given the systematicity of the phenomenon (think diminutives (Jurafsky 1996) and agentives!), semantic deletion is likely to be a process, but the choice doesn't matter for the issue of complex suffixes

### 3.3.3. Idiomatic *-tel'n-* adjectives

True idiomaticity seems very rare, the cases I have found mostly involve artificially constructed grammatical or medical terms (Latin calques), often with no corresponding verbs:

- (23) a. *sorevnovátel'nij* 'competitive' (\**sorevnováti*; *revnováti* 'to be jealous of')  
b. *prilagáatel'noe* 'adjective' (*prilagáti* 'to apply')  
c. *soslagáatel'noe* 'conditional' (\**soslagáti*)

(Semi-)idiomatic cases are more attested (see also Vinogradov 1952:350):

- (24) a. *zamečátel'nij* 'remarkable' (*zamečáti* 'notice.IMPFV.INF', \**zamečátel'i*)  
b. *medlítel'nij* 'sluggish' (*médliť* 'linger.IMPFV.INF')  
c. *stremítel'nij* 'swift' (*stremít'sja* 'rush/strive.IMPFV.INF', \**stremítel'i*)

Does idiomaticity depend on bleaching?

## 4. INTERMEDIATE SUMMARY: MEANING AND STRUCTURE

Two separate issues:

- how the contribution of the inner suffix changes (discussed)
- in what structure this happens (not yet discussed)

All interpretations of *-tel'i-* adjectives can be obtained without an appeal to complex suffixes

The actor suffix *-tel'i-* can produce:

- agents: incompatible with the suffix *-ŷn-*; involve the additional feature [+animate]
- instruments: the core INITIATOR meaning (=external argument); the lack of animacy in nouns is pragmatic in the absence of the [+animate] feature
- entities linked to the event: semantic zero, unavailable outside *-tel'n-* adjectives

The last option arises because an affix can be bleached of its lexical meaning

Maybe roots can too and that's how we get idioms in morphology?

Possible reduction to the worst-case scenario: there is no difference and the suffix *-tel'i-* is totally bleached in all non-idiomatic *-tel'n-* adjectives (cf. section 7.2)

Bleaching should still retain categorial information because the suffix *-ĭn-* cannot combine with thematic stems (section 7.1)

In the suffixal complex *-telĭn-* the inner suffix (*-telĭ-*) overcomes the selectional restrictions of the suffix *-ĭn-* (Stump's and Haspelmath's *counterpotentiation*)

The suffix *-telĭ-* is strictly deverbal, by the way, and must combine with a thematic stem (section 7.1)

This argument says nothing about the structure of the suffixal complex, only about the role of the inner suffix

### Contextual allosemy is not dependent on the existence of complex suffixes

But complex suffixes should be available

- They are already assumed to exist (fused tense and agreement nodes, fused tense and theme nodes) in syntax
- They are not ruled out by any principles

### 5. THE COMPLEX FEMININE *-NIC-F*

The suffixal complex *-nic-* is the feminine variant of the agentive/nominalizing suffix *-nik-*:

- (25) a. *animésnik/animésnica* 'animé lover.M/F'  
 b. *otstupit'* 'to renounce' → *otstupnik/otstupnica* 'renegade'

All its component parts are independently motivated:

- the adjectivizing suffix *-ĭn-*
- the diminutive/nominalizing suffix *-ik-*
- [+feminine] (possibly with suprasegmental accentual feature, Matushansky 2023)
- [+animate] (probably fused with [+feminine])

Two major options:

- (26) a.
- b.

The option in (26a) instantiates the complex suffix *-nic-*, (26b) is built incrementally

The suffixal complex *-nic-* also forms feminines for *-telĭ-* nouns:

- (27) *učitel'/učitel'nica* 'a teacher', *voditel'/voditel'nica* 'a driver', *voitel'/voitel'nica* 'a warrior', *roditel'/roditel'nica* 'a parent'

How are these feminines formed? Suppose only iterative suffixation is available:

- (28)

How is *-tel<sup>i</sup>*- interpreted in this structure?

The interpretation of feminine [*tel<sup>i</sup>nic*] nouns should depend on the interpretation of the corresponding [*tel<sup>i</sup>n*] adjective

### 5.1. As an animate agentive nominalizer

Impossible: the suffix *-ŋn-* does not combine with animates

### 5.2. As an inanimate actor nominalizer

Then *a<sub>1</sub>* should mean “related to the actor of V”

The addition of the garden-variety diminutive suffix *-ik-* is not allowed here: \**učitel<sup>i</sup>nik*

We have to assume that the feminitive alloseme of *-ik-* (*-ic-*) is used here rather than the suffixal complex *-nic-*

Such an alloseme exists:

- (29) a. *tigr/tigr<sup>i</sup>ica* ‘tiger’  
 b. *máster/master<sup>i</sup>ica* ‘master’

But it only attaches to animate masculine nouns, there are no cases that I am aware of where it would function as an animate deverbal nominalizer with no masculine counterpart:

- (30) a. *pev<sup>ec</sup>/pev<sup>i</sup>ica* ‘a singer’, *krasávec/krasá<sup>i</sup>vica* ‘a beauty’      animate, deverbal but paired  
 b. *mokr<sup>i</sup>ica* ‘wood-louse’ (from *mókrij* ‘wet’)      animate but deadjectival  
 c. *útica* ‘duck.DIM’      animate but denominal and diminutive

Among 140 inanimate feminine nouns in [*ica*] in Zaliznjak 2010 I have found no deverbal ones  
 There are 4 inanimate feminine nouns in [*tel<sup>i</sup>nic*], e.g., *plevatel<sup>i</sup>nica* ‘a spittoon’, but they are not directly deverbal

Suppose nonetheless that the suffix *-ic-* can act as a (human) feminine deverbal nominalizer

Because the EA alloseme of *-tel<sup>i</sup>*- is used, the resulting *-tel<sup>i</sup>n-* adjective is linked to the external argument of the verb:

- (31) a. *spasátel<sup>i</sup>* ‘rescuer (on sea)’: [[[spas-a]<sub>V</sub>-tel<sup>i</sup>]<sub>N-Ø<sub>ANIM</sub></sub>]<sub>N-ANIM</sub>  
 b. *spasátel<sup>i</sup>nij* ‘life-saving, rescue (attr.)’: [[[spas-a]<sub>V</sub>-tel<sup>i</sup>]<sub>N-ŋn</sub>]<sub>ADJ</sub>  
 c. [*nic*] ([spas-a-tel<sup>i</sup>-ŋn]) ≈ female individual linked to actors of saving events

The interpretation of the resulting feminitive (31c) is the right one: feminine agents of saving

### 5.3. As a semantically vacuous nominalizer

For some adjectives *-tel<sup>i</sup>*- under *-ŋn-* is semantically null: the *-tel<sup>i</sup>n-* adjective is semantically linked directly to the verbal stem:

- (32) a. *izbirátel<sup>i</sup>* ‘elector, voter’: [[V-tel<sup>i</sup>]<sub>N-Ø<sub>ANIM</sub></sub>]<sub>N-ANIM</sub>  
 b. *izbirátel<sup>i</sup>nij* ‘electoral, election (attr.), voting’: [[V-tel<sup>i</sup>]<sub>N-ŋn</sub>]<sub>ADJ</sub>

The adjective is non-agentive and non-instrumental

The feminitive (33a) should also be:

- (33) a. *izbirátel<sup>i</sup>nica* ‘female elector, voter’  
 b. [*nic*] ([izbir-a-tel<sup>i</sup>-ŋn]) ≈ female individual linked to electing

(33b) can denote a female voter. But **it should also be able to denote something else**



It becomes a pure accident that all [-*tel<sup>l</sup>nic*a] nouns denote female counterparts of [-*tel<sup>l</sup>*] nouns

#### 5.4. Non-local allosemy

Because the suffix *-ĭn-* is a pure categorizer, can the suffix *-ic-* select the same (actor) alloseme of the suffix *-tel<sup>l</sup>-* across the semantically null suffix *-ĭn-* in an iterative structure?

Consequences:

- more than one morpheme can affect allosemantic choice: a novel algorithm is needed determining when which of them wins
- ABA is no more excluded (good) and should be easily available (not good)

And we needed additional stipulations about the suffix *-ic-*: it should become a pure feminine deverbal nominalizer with no masculine counterparts

The usual masculine counterpart of *-ic-* is *-ĭc-* ([*ec*]/[*c*])

#### 5.5. Non-complexity of *-nic-*

One could also assume that *-nic-* is simplex

Consequences:

- shared *-ni-* segment with the masculine *-nik-* and suffixal complexes derived from it would be accidental (or the gendered nominalizer *-nik-/nic-* would be a different morpheme)
- shared *-ic-* segment with the feminines *-ščic-* and *-ic-* would be accidental
- systematic ambiguity of feminine suffixes between pure feminines and feminine actors would be accidental

Matushansky 2023: Russian feminine suffixes are all complex

### 6. SUMMARY AND CONCLUSIONS

The Russian suffix *-tel<sup>l</sup>-* forms nouns that may only denote external arguments of the base verb: agents, experiencers, causers, instruments (and a handful of idioms)

Animate *-tel<sup>l</sup>-* nouns have been argued to result from the addition of the feature [+animate]

In the suffixal complex *-tel<sup>l</sup>-ĭn-* the suffix *-tel<sup>l</sup>-* is either interpreted as the instrument (inanimate EA) or becomes semantically null (a pure categorizer)

Derived *-tel<sup>l</sup>n-* adjectives can “relativize the external argument” (per Itkin and Leont’eva 2019) or be interpreted as a property linked to the event denoted by the base verb

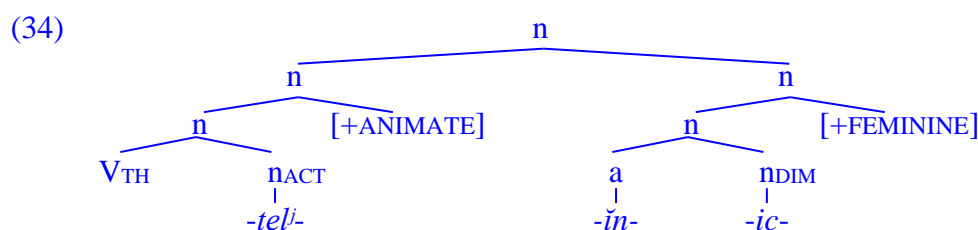
Semantic bleaching could be argued to arise in a complex suffix or in iterative suffixation

If semantic bleaching happens inside a complex suffix, we obtain:

- a structural distinction between bleached and active *-tel<sup>l</sup>n-* adjectives
- the **iterative** structure with the EA alloseme is used for the **instrumental** meaning
- the **complex suffix** with the semantically null alloseme is used for **adjectivization** of the verbal stem (to supplement *-ĭn-*, which cannot be deverbal)

Feminines in *-tel<sup>l</sup>nic-* cannot be handled in the iterative structure without major stipulations, and are accounted for straightforwardly if assumed to involve a complex suffix *-nic-*:





To obtain the right interpretation *-nic-* should be semantically null (which can lead to problems where it comes to the deverbal *-nic-*, which is predominantly agentive (Itkin 2007:179))

Complex suffixes are not precluded by syntax and are in fact expected

Possible objections to this theory include:

- **circumfixes:** affixal complexes with special meaning but not forming a constituent
- **more null suffixes:** intermediate instrument nouns could involve a [–animate] null suffix on a par with the [+animate] one, which would induce an enriched meaning optionally absent in derived *-telin-* adjectives (see also section 7.2)

More work is needed (as always)

## 6.1. Bleaching

I have said nothing about the interpretation of bleached suffixes inside a complex suffix. One simple way of doing is assuming that a bleached suffix denotes a non-typed identity function

For our purposes the suffixes *-in-* and *-ic-* in (34) could be null

Is bleaching obligatory inside a complex suffix?

- complex suffixes may also involve semantic enrichment (baby-diminutive *-ionok-*)
- the same complex feminine suffixes may be agentive or purely feminizing

Is it always the inner component that undergoes semantic bleaching? (Which agentive suffix is bleached in *-telin-* nouns?)

Paykin 2003:181 after Markov 1984: *-tel-* nouns denoting instruments may combine with the suffix *-ščik-* to produce corresponding agents (e.g., *osvetitel'* 'lighting appliance, or person in charge of lighting effects' → *osvetitelščik* 'person in charge of lighting effects'). Is this another case of *-tel-* bleaching?

## 6.2. Other complex suffixes in Russian

All feminitive suffixes in Russian are complex (this is a separate work by me)

The baby-diminutive/evaluative *-ionok-* (Gouskova and Bobaljik 2022) historically arose as a suffixal complex (*-in-* + *-ũk-/t-*) that has undergone semantic enrichment. Is it still complex?

Many nominalizers are suffixal complexes (especially those forming agents and instruments: *-inik-* (*-in-* + *-ik-*) and *-iščik-* (*-ičik-*) are based on the diminutive/nominalizing suffix *-ik-*

Adjectivizers often involve suffix doubling (cf. *-ic-al*):

- (35) a. *kardiolog*/\**kardiologik* 'cardiologist' → *kardiologičeskij* 'cardiological' compound  
*kardiolog**ia*/\**kardiologika* 'cardiology'
- b. *xirúrg*/\**xirurgik* 'surgeon' → *xirurgičeskij* 'surgical' simple root  
*xirurg**ia*/\**xirurgika* 'surgery'

This suffixal complex can only combine with non-native bases

Surface [ičesk] with corresponding nouns in *-nik-* and *-ščik-* has different prosodic properties

The phenomenon is extremely widespread

### 6.3. Other takes on suffixal complexes

Semantic bleaching of the inner affix in affixal complexes describes some of the phenomena known as affix telescoping, conglutination, affix imposition, root augmentation, etc.

**Affix telescoping** (Haspelmath 1995): the phenomenon where “a secondary derivate is related by speakers not to its immediate base (the primary derivate), but to the base of the primary derivate”

Stump 2022 calls affix telescoping only those cases where the historical change is complete: only the complex is productive, and its former parts aren’t

Haspelmath 1995 treats *-telʲn-* as an instance of affix telescoping, but his claim is that in affix telescoping the semantics of the whole is still compositional (not true for the vacuous *-telʲn-* in section 3.3.2)

**Conglutination** (Haspelmath 1995): “affix reanalysis in which an inner affix and an outer affix are combined [...] Semantically, the new conglutinated affix is not different from the original outer affix”

This description fits the cases in section 3.3.2, but not those cases of *-telʲn-* adjectivization that still retain actor semantics

**Affix imposition** (Grestenberger and Kastner 2022) adds a (potentially semantically vacuous) affix as input for further derivation, resulting in stem-derived words (the ABA pattern)

**Root augmentation** (Grestenberger and Kastner 2022) creates a new root through reanalysis of the base, resulting in root-derived words

The ability of the vacuous *-telʲ-* to enable adjectivization of thematic verbal stems seems to be a sub-case of Stump’s **inward potentiation** (2019)/**counterpotentiation** (2022)

## 7. APPENDICES

### 7.1. The thematic suffix

The thematic suffix appears to change the combinatorial possibilities of a verbal stem

**The deverbal suffix *-telʲ-* can only combine with thematic verbal stems**

Agapova 1974 via Zvezdova and Gou 2013: the exceptional suffixal complex *-i-telʲ-*:

- (36) a. *vlastʲ* ‘power’ → *vlastʲitelʲ* ‘ruler’ (\**vlastitiʲ*, *vlástvovatiʲ* ‘to rule’)  
b. *blʲustʲ* ‘to guard’ → *blʲustʲitelʲ* ‘guardian’ (\**blʲustitiʲ*)

Itkin 2007:168: the thematic suffix may exceptionally change or be inserted

For the suffix *-telʲ-* the missing intermediate verb is usually formed by the thematic suffix *-i-*. Sometimes the stem is nominal, sometimes athematic; theme replacement can be reduced to either

Lychyk 1995 notes that there are some denominal *telʲ-*formations that contain intermediate verbal morphology without there being the corresponding verb, e.g., *doždevatelʲ* ‘water sprinkler’ ← *doždiʲ* ‘rain’ (\**doždevatiʲ*)

Conversely, **the adjectivizing suffix *-in-* cannot combine with thematic verbal stems**

Matushansky 2021: also the deverbal agentive nominalizer *-un-*, but this one is not relevant here

The **passive past participle suffix -en-** is historically identical to *-ĭn-* (and might still be *-ĭn-* in the underlying representation, which would explain why it is unaccentable per Matushansky [to appear]) but never surfaces as such (its vowel never alternates, it is either zero or [e]):

- (37) a. čit- a- n- a ← čit-a-ĭn/ĕn-a + hiatus resolution?  
 read TH PPP FSG  
 b. kup l- ĕn- a ← kup-i-ĕn-a + glide formation  
 buy TH PPP FSG

Either thematic verbs do not form adjectives with *-ĭn-* (surface [en]/[n]) or when they do, they form a passive past participle

Vinogradov 1952:346-347: there exist a few deverbal *-ĭn-* adjectives (*béřeznĭj* ‘careful’ (*beréčĭ* ‘to protect’), *prijátnĭj* ‘pleasant’ (*prijátĭ* ‘to accept (arch.)’), *grebnóĭ* ‘rowing’ (*grestĭ* ‘to row’), etc.)

These are based on athematic verbs

Matushansky 2021: the addition of the thematic suffix is not vacuous:

- (38) a. *smol-i-tĭ* ‘to coat with tar’ → *smol-i-lščĭk*, *smolĭ-ščĭk* ‘a tarring professional’  
 b. *nos-i-tĭ* ‘to carry’ → *perenos-čĭk* ‘a porter’, *nos-i-lščĭk* ‘a porter, carrier’  
 (39) a. *okuč-nĭk* ‘hiller’ ← *okuč-i-tĭ* ‘to earth up’  
 b. *budi-lĭ-nĭk* ‘alarm clock’ ← *bud-i-tĭ* ‘to wake up’  
 (40) a. *torgov-ec* ‘merchant’ ← *torgov-a-tĭ* ‘to trade’  
 b. *skita-l-ec* ‘wanderer’ ← *skit-a-tĭ-s’a* ‘to wander’  
 (41) a. *davilka* ‘a press’ ← *dav-i-tĭ* ‘to press’  
 b. *davka* ‘a crush, jam’

In the presence of a thematic suffix to combine with suffixes *-ščĭk-*, *-nĭk-*, *-k-* and *-č-* the stem must be augmented

The resulting meanings are the same

The inner suffix in these cases does not contribute any meaning but might undo whatever it is that the thematic suffix does

## 7.2. Lexical vs. structural ambiguity

The same adjective may be interpreted differently in function of the noun it modifies (cf. Itkin and Leont'eva 2019):

- (42) *nabl’udátelĭ* ‘observer’  
 a. *nabl’udátel’nĭj čelovék* ‘observant person’  
 b. *nabl’udátel’nĭj punkt* ‘a point of observation’

Two options:

- structural ambiguity
- lexical enrichment

**Structural ambiguity:** two allosemes of *-telĭ-* (42a) is the EA *-telĭ-*, (42b), the bleached one

**Lexical enrichment:** same alloseme of *-telĭ-*, local pragmatic enrichment:

- (43) 1. one that walks: such as Merriam-Webster dictionary  
 a: a competitor in a walking race  
 b: a peddler going on foot

- c: a temporary male escort of socially prominent women attending usually public events
2. something used in walking: such as  
 a: a framework designed to support a baby learning to walk or an infirm or physically disabled person  
 b: a walking shoe

(43-1) involves the animate instance of *-er*, (43-2), the inanimate one, but both can be further distinguished

Likewise for (42): both could involve the bleached alloseme, pragmatically enriched

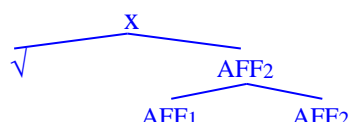
This option would nullify the need for complex suffixes, but has no explanatory power

### 7.3. Complex suffix formation and bleaching

Two sides of the problem:

- (i) Is allosemy an operation (semantic deletion) or a choice of the right alloseme?
- (ii) Does it happen inside a complex suffix (1a), in an iterative structure (1b), or either?

(1) a. **affixal constituent**



b. **iterative affixation**



#### 7.3.1. Bleaching as semantic deletion

Suppose **semantic deletion is an operation** occurring

| <b>only inside the complex suffix (1a):</b>                                                                                                                                 | <b>in the iterative structure (1b):</b>                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| no lookahead is required                                                                                                                                                    | lookahead is required: the interpretation of y cannot be computed until AFF2 is merged                                                            |
| the use of the complex suffix is motivated by the regular rules determining the choice of a given adjectivizer for a given stem (is this combination [+lexical insertion]?) | the deletion rule is supplemented by a list of stems (or: stems bear a diacritic for triggering the deletion rule in the context of <i>-ĭn-</i> ) |
| ambiguity is possible: the iterative structure with the non-bleached actor alloseme is still allowed                                                                        | ambiguity is predicted to not happen: the rule is either triggered or isn't                                                                       |

The complex structure hypothesis is preferable on formal grounds

Ambiguity is very difficult to test here: whenever you see it, it could be due to the use of the zero alloseme, which is underspecified for the relation to the verbal stem

Under the deletion hypothesis bleaching would only be expected to happen when triggered:  
**the zero alloseme would not be expected outside of *-tel/n-* adjectives**

#### 7.3.2. Bleaching as allosemy

Suppose some (most, all) **suffixes have a zero alloseme**

Is a zero alloseme (preferably) an Elsewhere case?

Then the zero alloseme would be expected also in *-telʲ-* nouns or in other derivates (for at least some stems)

Formally, if allosemy occurs

| inside a complex suffix (1a):                                                                                                                                               | in the iterative structure (1b):                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| no lookahead is required                                                                                                                                                    | no lookahead is required                                                                                                                                    |
| ambiguity is possible: the iterative structure with the non-bleached actor alloseme is still allowed                                                                        | ambiguity predicted to not occur: the choice of the alloseme is determined by the context                                                                   |
| the use of the complex suffix is motivated by the regular rules determining the choice of a given adjectivizer for a given stem (is this combination [+lexical insertion]?) | the alloseme is specified for a list of stems to combine with or stems bear a diacritic to force the use of the zero alloseme in the context of <i>-ʲn-</i> |

Here too the complex structure hypothesis is preferable

### 7.3.3. Deletion or allosemy?

Under the deletion hypothesis:

- no lookahead is required
- the additional operation (semantic deletion) has to be assumed

Under the allosemy hypothesis:

- no lookahead is required if complex suffixes are allowed
- no additional operations needed

I personally still believe in semantic deletion, but this argument is for another time

## 8. REFERENCES

- Agapova, G.V. [Zvezdova, G.V.]. 1974. К проблеме становления сложных суффиксов [On the problem of complex suffix establishment]. Doctoral dissertation, Saratov State University.
- Anagnostopoulou, Elena, and Yota Samioti. 2014. Domains within words and their meanings: a case study. In *The Syntax of Roots and the Roots of Syntax*, ed. by Artemis Alexiadou, Hagit Borer and Florian Schäfer, 81–111. Oxford: Oxford University Press. doi:10.1093/acprof:oso/9780199665266.003.0005.
- Bobkova, Natalia. 2022. Statistical modelization of suffixal rivalry in Russian: adjectival formations in *-sk-* and *-n-*. *Corpus* 23. doi:10.4000/corpus.6580.
- Gouskova, Maria, and Jonathan David Bobaljik. 2022. The lexical core of a complex functional affix: Russian baby diminutive *-onok*. *Natural Language & Linguistic Theory* 40(4), 1075–1115. doi:10.1007/s11049-021-09530-1.
- Grestenberger, Laura, and Itamar Kastner. 2022. Directionality in cross-categorical derivations. *Glossa: a journal of general linguistics* 2022(7(1)). doi:10.16995/glossa.8710.
- Halle, Morris. 1973. Prolegomena to a theory of word inflection. *Linguistic Inquiry* 4(1), 3–16.
- Haspelmath, Martin. 1995. The growth of affixes in morphological reanalysis. In *Yearbook of Morphology 1994*, ed. by Geert Booij and Jaap van Marle, 1–29. Dordrecht: Kluwer.
- Itkin, I. B. 2007. *Русская морфология [Russian morphonology]*. Moscow: Gnozis.
- Itkin, I. B., and A.L. Leont'eva. 2019. Морфологические и семантические особенности русских прилагательных с суффиксом *-тельн-* в синхронии и диахронии [Morphological and semantic peculiarities of Russian adjectives with the suffix *-tel'n-* in synchrony and diachrony]. Paper presented at VI конференция «Русский язык: конструкционные и лексико-семантические подходы» [The 6th

- conference "The Russian language: constructionist and lexical-semantic approaches"], Saint-Petersburg, October 3-5, 2019
- Jurafsky, Daniel. 1996. Universal tendencies in the semantics of the diminutive. *Language* 72(3), 533-578, <http://www.jstor.org/stable/416278>
- Kiparsky, Valentin. 1975. *Russische historische Grammatik. Band III. Entwicklung des Wortschatzes*. Heidelberg: Winter.
- Levin, Beth, and Malka Rappaport Hovav. 1988. Non-event *-er* nominals: A probe into argument structure. *Linguistics* 26, 1067–1083.
- Lychyk, Victor. 1995. Russian agentive noun formation in the 1970s. *Canadian Slavonic Papers / Revue Canadienne des Slavistes* 37(1/2), 137-161, <http://www.jstor.org.proxy.library.uu.nl/stable/40870673>.
- Marantz, Alec. 2013. Locality domains for contextual allomorphy across the interfaces. In *Distributed Morphology Today: Morphemes for Morris Halle*, ed. by Ora Matushansky and Alec Marantz, 95-115. Cambridge, Massachusetts: MIT Press.
- Marantz, Alec. 2023. Jabberwocky and the role of generative grammar in language use: the slithy toves slay *Words and Rules*. Paper presented at *LOT Schultink Memorial lecture*, Utrecht, July 13, 2023
- Markov, V.M. 1984. *Русское семантическое словообразование [Russian semantic word formation]*. Izhevsk: Udmurt State University.
- Matushansky, Ora. 2021. Russian nominalizations as a window on the verbal theme. Paper presented at *OTiPL Colloquium*, Moscow State University, November 24, 2021
- Matushansky, Ora. 2023. On the complexity of becoming feminine in Russian. Humboldt-Universität zu Berlin, May 3, 2023
- Matushansky, Ora. [to appear]. Two BAP violations in Russian verbal stress. In *Proceedings of FASL 30 (MIT)*, ed. by Tatiana Bondarenko, Peter Grishin and Anton Kukhto.
- Mel'čuk, Igor. 1980a. Animacy in Russian cardinal numerals and adjectives as an inflectional category. *Language* 56(4), 797-811.
- Mel'čuk, Igor. 1980b. O padeže čislovogo vyraženiya v russkix slovosochetani'x tipa (*bol'she*) na dva *mal'čika* ili po troe *bol'nyx*. *Russian Linguistics* 5(1), 55-74.
- Paykin, Katia. 2003. Deverbal nouns in Russian: in search of a dividing line. In *Contrastive Analysis in Language: Identifying Linguistic Units of Comparison*, ed. by Dominique Willems, Bart Defrancq, Timothy Coleman and Dirk Noël, 172-193. London: Palgrave Macmillan UK. doi:10.1057/9780230524637\_8.
- Rappaport Hovav, Malka, and Beth Levin. 1992. *-Er* nominals: implications for a theory of argument structure. In *Syntax and the Lexicon*, ed. by Tim Stowell and Eric Wehrli, 127-153. New York: Academic Press.
- Stump, Gregory. 2019. Some sources of apparent gaps in derivational paradigms. *Morphology* 29(2), 271-292. doi:10.1007/s11525-018-9329-z.
- Stump, Gregory. 2022. Rule combination, potentiation, affix telescoping. In *Morphological Diversity and Linguistic Cognition*, ed. by Adam Ussishkin, Andrea D. Sims, Jeff Parker and Samantha Wray, 282-306. Cambridge: Cambridge University Press. doi:10.1017/9781108807951.011.
- Vinogradov, V. V. ed. 1952. *Грамматика русского языка [The Grammar of the Russian Language]*. Moscow: Soviet Academy of Sciences.
- Zaliznjak, A. A. 2010. *Грамматический словарь русского языка [Grammatical Dictionary of Russian Language]*. Moscow: AST.
- Zvezdova, G.V., and Xuetao Gou. 2013. Словообразовательная динамика в группе прилагательных на *-тельн-* (на материале словарей современного русского языка) [Word-formation dynamics in the group of adjectives in *-tel'n-* (on the basis of dictionaries of Contemporary Russian)]. *Обрії сучасної лінгвістики [Frontiers of modern linguistics]* 4, 40-45, [http://nbuv.gov.ua/UJRN/obsl\\_2013\\_4\\_8](http://nbuv.gov.ua/UJRN/obsl_2013_4_8).