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

MAKE MICROMORPHOLOGY GREAT AGAIN
International Conference on the Structure of Hungarian 17, June 11-13, 2025

1   INTRODUCTION: COMPLEX AFFIXES

A notion taken for granted in traditional grammars but absent from realizational approaches to morphology (i.e., Distributed Morphology and Nanosyntax)

In English, it often happens in non-native vocabulary:

(1)   a.   abolish → abolition, absorb → absorption   suffix -tion-
      b.   truncate + tion → truncation   or -[t]ion-?
      c.   explain → *explaintion, ✓explanation, cf. explanatory   phonology?
      d.   expect → *expection, ✓expectation, cf. protect/protection

The insert**ion** of -*a[t]*- does not seem to be straightforwardly phonologically motivated and is not limited to one suffix:

(2)   a.   event → eventive, expense → expensive, immerse → immersive   suffix -iv-
      b.   provoke → provocative, provocation; form → formative, formation

Stump 2019: the English suffix -*at(e)*- has a dual status: as a verbalizer (*saliva/salivate*) and as a creator of a T-stem used in further derivation (*form/*formate*)
Stump 2019: historical basis: some verbs were based on the Latin past participle, nominalizations and adjectives might have been borrowed directly

And sometimes -*a[t]*- is not enough:

(3)   a.   classify → classi**fication**, classi**ficatory**   suffixal complex -ic-at-[t]ion-
      b.   simplify, gamify, spotify…

What is -*ic*- doing here?
And is it the same -*ic*- as in (4)?

(4)   a.   history + ic → historic (important in history), + al → historical (related to history)
      b.   electr- + ic → electric (uses electricity), +al → electrical (related to electricity)
      c.   meter + ic → metric (using meters as base), metrical (related to poetic meter; involving measurement)
      d.   nonsense → *nonsensic, ✓nonsensical
      e.   whimsy → whimsical, type → typical

Traditional approach: these are complex affixes, -*ation*-, -*ical*-, -*ication*-…

"Micromorphology" (term from Stump 2019; formalizations in Bochner 1993, Soukka 2000, Luís and Spencer 2005, Stump 2017a, b): **affixes may combine without a stem**

(5)
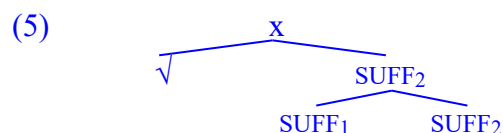
Stump 2017a, b, 2019, 2022: two (Vocabulary Insertion[DM]) rules may conflate
The outcome of conflation may differ from successive affixation, e.g.,:
   ➢   derivatives in -*ian*- may be nouns or adjectives; derivatives in -*ic-ian*- can only be [+human] nouns
   ➢   derivatives in -*ist-ic*- may not relate to derivatives in -*ist*-
   ➢   derivatives in -*ic-al*- contain stems that neither -*ic*- nor -*al*- alone can combine with

No prior implementations in Distributed Morphology
Am I just translating Stump's theory into DM? No

DM allows us to determine and/or implement:
  ➢ semantic effects of complex affixation: semantic deletion, allosemy and its sources
  ➢ conditions on complex affixation (Stump's T-stem): subcategorization, blocking, feature clashes

Like rule conflation, addresses potentiation (Aronoff 1976), counter-potentiation (Stump 2022) and **affix conglutination** (Haspelmath 1995; the fact that the inner affix is semantically null)

Roadmap:
  ➢ Russian complex affix *-telʲ-ĭn-*: evidence for complex affix formation
  ➢ semantic deletion in complex affixes
  ➢ further (cross-linguistic) evidence for complex affix formation

The questions of why and how will only be touched upon

2   THE SECRET AGENT IN *-TELʲ-ĬN-*

Similar to *-ist-ic-* in *capitalistic*: non-agentive despite an agentive suffix
For the range of possible meanings see Itkin and Leont'eva 2019 (in Russian)

2.1   Dramatis personae: *-telʲ-* and *-ĭn-*

Adjectivizing suffix -ĭn- (surface [en]/[n]): "pure categorizer", no discernable lexical meaning beyond adjective formation:

(6) a. *pɨlʲ* 'dust'   (7) a. *kompʲúter* 'computer'
     b. *pɨlʲ-n-ɨj* 'dusty.MSG'   b. *kompʲúter-n-ɨj* 'computer-ADJ-MSG'

Non-deverbal, productive, strongly disprefers [+human] bases (Bobkova 2022)
Vinogradov 1952:346 treats this as a restriction on animates, but notes a few exceptions, such as *konnij* 'horsed' or *rɨbnij* 'fish'. On the use of *-ĭn-* with verbal bases see section 6.1

"Pure categorizer" means the outcome is a "property linked to N":

(8) a. programmnɨj 'programmatic, program'
     b. kulʲturnɨj 'cultural, cultured, cultivated'
     c. vernɨj 'faithful' (from *vera* 'faith, belief')

(9) $[\![-\text{ĭn-}]\!] = \lambda x_k . \lambda P . P$ has something to do with x_k

Agentive suffix -telʲ-: strictly deverbal, strictly obeys the External Argument Generalization of Levin and Rappaport Hovav 1988 and Rappaport Hovav and Levin 1992:

(10) a. *lʲubí-tʲ* 'love-INF'   (11) a. *vɨklʲučá-tʲ* 'turn off.IMPFV-INF'
     b. *lʲubí-telʲ* 'an amateur'   b. *vɨklʲučá-telʲ* 'a light switch'

In productive uses can be restated as "one who Vs", ambiguous between actor and instrument interpretation; this ambiguity seems to be systematic across languages (Rainer 2015):

(12) $[\![-\text{tel}^j-]\!] = \lambda P . \iota x_k . \text{Gen}(e') . [P (x)(e')]$ after Olsen 2019 for *-er*

An agentive noun can serve as a basis for an apparently transparent adjective-formation:

(13) a. muči-t^j
      torture-INF →
      to torture

b. muči-tel^j
    torture-AGT →
    tormentor

c. muči-tel^j-n-ij
    torture-AGT-ADJ-MSG
    poignant, agonizing

Impressionistically, most -*tel^{j}ĭn*- adjectives are agentive

2.2 Affix telescoping and conglutination

The interpretation of a sequence of suffixes need not be compositional

Affix telescoping (Haspelmath 1995): semantically transparent derivation with a missing step:

(14) a. opravda-t^j
      acquit-INF →
      to acquit

b. ✘ opravda-tel^j
    acquit-AGT →

c. opravda-tel^j-n-ij
    acquit-AGT-ADJ-MSG
    acquitting

Most agentive -*tel^j-ĭn*- adjectives lack a corresponding noun

Sometimes the noun is present but cannot be the base for the adjective:

(15) a. *izbirát^j* 'to elect' → *izbirátel^j* 'elector, voter'
      b. *izbirátel^{j}nɨj* 'electoral, election (attr.), voting' ≈ 'related to voting/election'
      c. *izbiratel^{j}nɨj učastok* 'polling station'
      d. *izbiratel^{j}nɨj b^{j}ulleten^j* 'voting form'

(16) a. *predoxranít^j* 'to protect, preserve' → *predoxranítel^j* 'electrical fuse, safety device'
      b. *predoxranítel^{j}nɨj* 'preservative, preventive, protective'
      c. *predoxranitel^{j}nɨe merɨ* 'precautions, precautionary measures'

And the resulting -*tel^j-ĭn*- adjective does not have to include an agentive component:

(17) a. *razdražát^j* 'to irritate (IMPF)' → *razdražítel^j* 'irritant' (from the perfective stem)
      razdražítel^{j}nɨj 'irritable'

b. *nosít^j* 'to carry, wear, bear' → *nosítel^j* 'carrier' (rocket carrier, information bearer)
      nosítel^{j}nɨj 'wearable, transportable'

The adjective is semantically linked to the verb rather than to the intermediate noun:

(18) $[\![\sqrt{}-X_{TEL^j}-Y_{ĬN}]\!] = [\![Y_{ĬN}]\!]([\![\sqrt{}]\!])$ affix conglutination

> The phenomenon of semantically vacuous intermediate suffixes is very widespread

Affix 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"

Terminology: Stump 2022 calls the cases where the historical change is complete (only the complex is productive, and its former parts are not) **affix telescoping**; Haspelmath 1995 reserves this term for cases where the inner affix is semantically null

> In affix conglutination the intermediate affix is semantically vacuous

Traditional Russian grammars, Agapova 1974 via Zvezdova and Gou 2013; Haspelmath 1995, citing Kiparsky 1975; Itkin and Leont'eva 2019: new simplex suffix -*telĭn*-:

(19) a.   *osnovát^j* 'to found' → *osnovátel^j* 'founder' ↛ *osnovátel^{j}nij* 'substantial'
      b.   *starát^{j}s^{j}a* 'to try hard' → *stará-tel^j* 'prospector' ↛ *stará-tel^{j}n-ij* 'assiduous'

But is it truly reanalyzed as a single morpheme?

2.3   Complex affix formation or reanalysis?

Stump 2022: the suffixes *-let* and *-ling* have been reanalyzed:

(20) a.   booklet, droplet, eyelet, leaflet, piglet, rootlet, streamlet, wavelet   *-let-*
      b.   kernel, nozzle, puddle, scrapple   *-l-*
      c.   Janet, midget, packet, turret   *-et-*

(21) a.   duckling, gosling, hatchling, nestling, sapling, seedling, weakling, yearling   *-ling-*
      b.   fairing 'present from a fair', golding 'gold coin',   *-ing-*
            lording 'term of address for a lord', sweeting 'sweet apple; sweetheart'

Neither the inner nor the outer suffixes are productive

Haspelmath 1995, Grestenberger and Kastner 2022: Modern Greek verbalizer *-ev-*, originally derived from the combination of the agentive suffix *-eu-* and the verbalizer **-je/o-*

Conversely, in *-ic-al-*, *-ic-ian-*, *-ist-ic-*, or the Russian *-tel^j-ĭn-* or *-ik-ĭsk-* (surface *-ič-esk-* (41)), both pieces are fully productive

2.4   Where is the agentivity?

Puzzle: the loss of agentivity at the intermediate step appears to be conditioned by both the root and the adjectivizing suffix, other environments retain agentivity:

(22) a.   predstavit^j 'imagine; present.PFV.INF'
            predstavl^{j}at^j 'imagine; present; represent.IMPFV.INF'

      b.   predstavitel^j 'representative', predstavitel^{j}nica 'representative.F'
      c.   predstavitel^{j}nij 'representative; **impressive, dignified**'
      d.   predstavitel^{j}stvo 'representation'

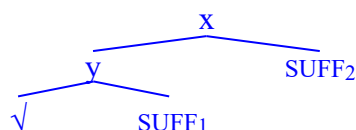The loss of agentivity at the intermediate step **is not obligatory**
Paykin 2003:181 after Markov 1984: instrument-denoting *-tel^j-* nouns may combine with the suffix *-ščik-* to yield corresponding agents (e.g., *osvetitel^j* 'lighting appliance, *or* person in charge of lighting effects' → *osvetitel^{j}ščik* 'person in charge of lighting effects'). Is this another case of *-tel^j-* bleaching?

The semantically vacuous affix is systematically the inner one (more cases to follow)
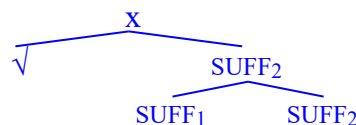
3   COMPLEX AFFIX FORMATION

Proposal: two potential structures for a sequence of suffixes:

(23) a.   **iterative suffixation**   b.   **complex suffix**

The two adjectival interpretations in (22c) correspond to the two structures, respectively:

(24) a.   [[predstavi-tel^j]- nij] 'representative'
               present   AGT   ADJ

     b.   [predstavi-[tel^j-nij]] 'impressive, dignified'

> Complex affix formation is not excluded by DM (it is even expected, if it's "Syntax All The Way Down")

However, **this constituency imposes constraints on the interpretation**

3.1   Reasons for complex affix creation

Section 5: complex affix creation usually seems result-oriented (e.g., phonotactics, c-selection, blocking, adaptation of non-native vocabulary…)

Most Russian verbs contain a thematic suffix: a vocalic suffix merged between the verbal stem and the tense-agreement inflection

The **adjectivizing suffix -*ĭn*- cannot combine with thematic verbal stems** (section 6.1)

Hence a complex suffix is created (cf. Stump's and Haspelmath's *counterpotentiation*)
Why via -*tel^j*-? Most likely, due to calques from Greek (section 6.2)

3.2   Semantic clash in a complex suffix

The **agentive suffix -*tel^j*-** is deverbal and creates agentive nouns

The adjectivizing suffix -*ĭn*- is strictly denominal (most likely not for semantic reasons but who knows)

The constituent formed by the two suffixes is redundant and incoherent:
➢   redundancy: -*ĭn*- is a pure categorizer returning the property of being related to the base stem (-*tel^j*- is far more specific, returning the kind characterized as the external argument of the base event)
➢   incoherence: -*tel^j*- returns a kind, -*ĭn*-, a property

In the general case, **one suffix in a complex suffix structure must be semantically null**

Two options: actual deletion (a process) or inserting a null alloseme (i.e., semantic allomorph, cf. Marantz 2013, Wood 2015)
My preference is for the former: (a) deletion is a process attested on the PF side; (b) the distribution of semantically null affixes seems to be predictable; (c) the null alloseme would also have to have come from somewhere, (d) too many other suffixes would have to have a null alloseme

Empirically, it is generally the inner suffix that is semantically null

Since -*ĭn*- is a pure categorizer, -*tel^j*-*ĭn*- will also be one, no motivation for semantic constraints on the base

But the c-selectional conditions of -*tel^j*- remain: the complex suffix is purely deverbal

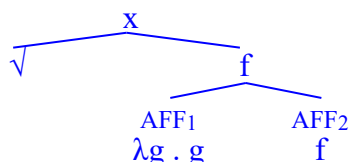Two possible ways of semantic composition in a branching structure (Heim and Kratzer 1998):
➢   function application: one of the nodes applies to the other
➢   predicate modification: the two nodes form a conjunction

Inheritance of the c-selectional properties of the inner affix (AFF1) is unclear
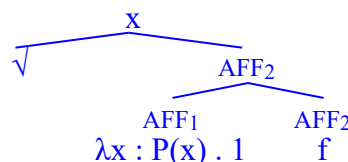
If AFF1 has a presupposition P, only one of the structures allows us to preserve it

Combined with semantic deletion:

(25) a. **function application**   b. **predicate modification**

$$
\begin{array}{c}
x \\
\sqrt{} \quad f \\
\text{AFF}_1 \quad \text{AFF}_2 \\
\lambda g \cdot g \quad f
\end{array}
\qquad
\begin{array}{c}
x \\
\sqrt{} \quad \text{AFF}_2 \\
\text{AFF}_1 \quad \text{AFF}_2 \\
\lambda x : P(x) \cdot 1 \quad f
\end{array}
$$

If the restrictions on the base of AFF1 are encoded as presuppositions, they cannot be projected in (25a); c-selection must be assumed (and some conditions on its inheritance)

In (25b) only the presuppositions remain, selection can be semantic

No evidence for choosing on the basis of *-telʲ-ĭn-*

> But complex suffix formation may also give rise to novel meanings

4   INTERMEDIATE SUMMARY

The agentive semantics of the suffix *-telʲ-* can be lost in adjectival derivation (Haspelmath's affix conglutination, which is a type of Stump's rule conflation)

This loss is not obligatory, there exist doublets, as in (22c):
Though such doublets can always be attributed to polysemy, either of the base stem or of the derivate

(26) a.   predstavitelʲnij 'representative'
     b.   predstavitelʲnij 'impressive, dignified'

Proposal: formation of a complex suffix and obligatory semantic deletion inside it

Agentive and non-agentive readings of *-telʲ-ĭn-* adjectives correspond to different structures

Semantic deletion may correspond to
     (a) replacement with an identity function, retention of c-selectional properties
     (b) replacement with a constant and retention of presuppositions

The latter option can also be implemented as copying of the scope of the λ-operator of AFF2 to AFF1 with retention of the restriction of AFF1 but copying is known to be computationally suspicious

No basis for deciding between these options

Additional benefits: **counterpotentiation** (Haspelmath 1995, Stump 2022, 2023):

(27) a.   cyclic, historic
     b.   *whimsic, nonsensic
     c.   whimsical, nonsensical

In the suffixal complex *-telʲ-ĭn-* the inner suffix (*-telʲ-*) overcomes the selectional restrictions of the suffix *-ĭn-*

5   TEST CASE: HUNGARIAN

Two cases considered: *-hAt-O-* and *-hAt-AtlAn-* (Kenesei, Vágó and Fenyvesi 1998:366)

Outcome: indeterminate

5.1 Passive modality

Kiefer 2001, Kiefer 2005:63, 2015a:3320, Lipták and Kenesei 2017:65: *-hAt-O-* is a complex suffix with both parts independently attested and productive:

(28) a. a   könyvet   a   gyerekeknek   ad-**ó**   férfi   Lipták and Kenesei 2017:65
         the   book.ACC   the   children.DAT give-PR.PRT man
         'the man giving the book to the children'

   b. a   férfi   a   gyerekeknek   ad-**hat**-ja   a   könyvet.
       the   man   the   children.DAT give-POT$_{ACT}$-DEF.3SG   the   book.ACC
       'The man is allowed to give the book to the children.'
       'It may be the case that the man gives the book to the children.'

The participial suffix *-O-* creates active participles
The verbal suffix *-hAt-* adds (subject-oriented) modality

> The complex suffix *-hAt-O-* is strictly object-oriented and requires a transitive verb

The outcome may be an adjective or a participle
Kenesei et al. 1998 list two pseudo-passive examples (*megbíz NP-ben* 'trust in NP' → *megbíz-ható* 'trustworthy'), but do not indicate whether they are exceptional

Lipták and Kenesei 2017:70: unlike *-hAt-*, the complex suffix *-hAt-O-* allows only dispositional modality:

(29) ez   a   könyv gyerekeknek   ad-hat-ó   volt.   Lipták and Kenesei 2017:70
     this the book   children.DAT give-POT$_{PASS}$-PR.PRT was
     #'It might be the case that this book was given to the children.'
     lit. 'This book was givable to children.'

Lipták and Kenesei 2017: the suffix *-hAt-* has a passive variant (which can only appear inside an adjective or a participle)
Historical change: from all internal arguments to only internal arguments of transitive verbs

The result can be derived by iterative suffixation, but **why is there no passive reading for the verbal *-hAt-*?**

5.2 Negative passive modality

Kiefer 2001, 2015b: the privative suffix *-tlAn-* (surface *-AtlAn-* with verbal stems) combining with transitive verbal stems and yielding negated passives:

(30) a. vasal 'iron' + AtlAn → vasal-atlan 'unironed'
   b. olvas 'read' + AtlAn → olvas-atlan 'unread'

Kiefer 2001: the verb is passivized before combining with *-AtlAn-* (zero derivation)

When cooccurring with *-hAt-*, *-AtlAn-* yields object-oriented negative possibility (the negation of the passive *-hAt-*):
This combination, however, seems fully compositional even with the active *-hat-* if this latter combines with the verbal event rather than a VP

(31) a. olvas-hat 'can/may read', nevel-het 'can/may educate'
   b. olvas-hat-ó 'readable', nevel-het-ő 'educable'
   c. olvas-hat-atlan 'unreadable', nevel-het-etlen 'ineducable'

Apparent generalization: the passive *-hat-* can only occur inside adjectives

Alternative:
- very low VP-internal attachment site for all the "passivizing" suffixes (result state, in some decompositional terms)
- TP-area attachment site for subject-orientation (which precludes "agentive modal participles)
- semantics of modals by itself (quantification over possible worlds) does not predict either subject- or object-orientation
- but dynamic modality is agent-oriented (cf. Cohen 2016, 2018)

However, both Kiefer 2001 and Lipták and Kenesei 2017 provide evidence for a null passivizer

Be what may, for the time being I see nothing that complex affixation can contribute here

6   THE RHYME AND REASON OF *-TELʲ-ĬN-*

Driving force: c-selection

6.1   On the c-selectional properties of the suffix *-ĭn-*

The suffix *-ĭn-* can combine with verbs:

Vinogradov 1952:346-347: there exist a few deverbal *-ĭn-* adjectives (*bérežnij* 'careful' (*beréčʲ* 'to protect'), *prijátnij* 'pleasant' (*prijátʲ* 'to accept (arch.)'), *grebnój* 'rowing' (*grestí* 'to row'), etc.)

Thus empirically, **the adjectivizing suffix *-ĭn-* cannot combine with thematic verbal stems**

Hypothesis: this is not a hard-wired restriction, either semantic or syntactic, this is blocking

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

(32) 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

If an adjective was formed with the suffix *-ĭn-* from a thematic verb, this adjective would be indistinguishable from a passive past participle

Hence **complex affix formation caused by blocking**

6.2   A brief history of *-telʲ-ĭn-*

Agapova 1974 via Zvezdova and Gou 2013, Itkin and Leont'eva 2019: adjectives without the intermediate noun already by the 11th century:
Demidov and Kamchatnov 2020: the existence of *-telʲ-ĭn-* adverbs without corresponding adjectives suggests that short forms with the gerundive meaning should be regarded as primary

(33) a.   voliteľⁱnij 'by choice' (11th c., *voliteľ)
      b.   vozveščateľⁱnij 'demanding, announcing' (16th c., *vozveščateľ)

Agapova 1974 via Zvezdova and Gou 2013: derivation from the verbal stem in the 11th-14th c.

Non-agentive use in the 19th century:

(34) stojal,   ožidaja   s   zamirajuščim serdcem   postupi-tel[j]-n-ogo   èkzamena
      stood   awaiting   with   sinking   heart   admit-TEL-ADJ-SG.GEN   exam
      stood waiting for admittance exam with a sinking heart (Aleksey Pisemsky, 1858)

Zvezdova and Gou 2013: these adjectives are derived directly from the verbal stem

Lopatin and Uluxanov 2016:653-657: at least six allosemes, including "intended for V", "the object of V", and "the state of V", direct derivation from the verbal stem

Important: **the suffix -*tel[j]*- remained agentive throughout**

Both -*tel[j]*- and -*ĭn*- remain productive, and are recognizable as parts of -*tel[j]*-*ĭn*-

6.3   Agency in feminitives

The nominalizing suffix -*nik*- is historically a complex suffix (the adjectivizing suffix -*ĭn*- + the diminutive/nominalizing suffix -*ĭk*-, yer vocalization is phonologically driven)

The suffixal complex -*nic*- is its feminine variant:

(35) a.   *animéš*nik/*animéš*nic*a* 'animé lover.M/F'
      b.   *otstupít[j]s[j]a* 'to renounce' → *otstúp*nik/*otstúp*nic*a* 'renegade'

The suffixal complex -*nic*- also forms feminitives for -*tel[j]*- nouns:

(36) *učítel[j]*/*učítel*nic*a* 'a teacher', *vodítel[j]*/*vodítel*nic*a* 'a driver', *voítel[j]*/*voítel*nic*a* 'a warrior', *rodítel[j]*/*rodítel*nic*a* 'a parent'

There cannot be two agentive suffixes in these feminitives!

If -*nic*- still contains the adjectival -*ĭn*-, complex affix formation is the only possible analysis

Suppose only iterative suffixation is available:

(37)

```
                           n3
                      ┌─────┴─────┐
                     n2          n F
                 ┌────┴────┐
                a1        nDIM
            ┌────┴────┐     │
           n1        a    -ic-
        ┌───┴───┐     │
        √       n   -ĭn-
                │
              -tel[j]-
```
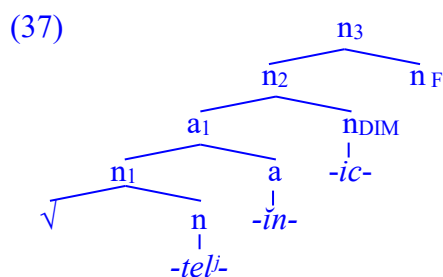
How is -*tel[j]*- interpreted in this structure?

> The interpretation of feminine [tel[j]nic] nouns should depend on the interpretation of the corresponding [tel[j]n] adjective

Evidence for decomposing: the feminine suffixes -*ščic*- and -*ic*- (counterparts to the masculine suffixes -*ščik*- and -*ĭc*-)

7   OTHER INSTANCES OF COMPLEX SUFFIXATION

7.1   Russian complex adjective formation and the loss of agentivity

Systematic semantic deletion of the [+human] nominalizer in adjective formation

Haspelmath 1995 following Kiparsky 1975:267-268: the complex suffixes -*česk*- and -*čestv*-:

(38) a.   *tvoréc* 'a creator' → *tvórčeskij* 'creative', *tvórčestvo* 'creation'
      b.   *pereselénec* 'migrant, settler' → *pereselénčeskij* 'migrational'
      c.   *jazıkovéd* 'a linguist' → *jazıkovédčeskij* 'linguistic'
      d.   *studént* 'a student' → *studénčeskij* 'student', *studénčestvo* 'students as a class, the time of being a student'

The nominalizing suffix -*ıc*- (surface [ec]/[c]) is productive, as are the suffixes -*ısk*- (surface [esk]/[sk]) and -*stv*- (surface [estv]/[stv])

The non-productive agent ([+human]) suffix -*ar*-/-*ar^j*- might be an exception to the inability of the suffix -*ın*- to combine with animate nouns:
The final palatalized consonant of the nouns in (39) is depatalized before [n]

(39) a.   *pékar^j* 'a baker' → *pekárnıj* 'baking (attr.)' (cf. *pekú* 'bake.PRES.1SG')
      b.   *kustár^j* 'handicraftsman' → *kustárnıj* 'handicraft (attr.)'

The meaning is 'related to/characteristic of the profession(al)' (*pekárnıj* is linked to bakers and bakery (*pekárn^ja*, -*ın^j*- is a non-productive location suffix), not to the baking process itself)

The non-native nominalizer -*ik*- becomes semantically null in a complex suffix -*ič-esk*-:
Surface [ičesk] with corresponding nouns in -*nik*- and -*ščik*- has different prosodic properties

(40) a.   *alkogólik* 'an alcoholic' → *alkogolíčeskij* 'alcoholism-related'   parallel derivation
            alkogól^j 'alcohol' → *alkogól^jnıj* 'alcoholic'

      b.   *xímik* 'chemist' → *ximíčeskij* 'chemical'   glide insertion in the abstract noun
            xími[j]-a 'chemistry'

      c.   *nevrótik* 'a neurotic' → *nevrotíčeskij* 'neurotic(al)'   stem allomorphy
            nevrós 'neurosis'

      d.   *fízik* 'physicist' → *fizíčeskij* 'physical'   likely reanalysis with the root -*fiz*-
            fízika 'physics'

And the corresponding human nouns may even be null-derived:

(41) a.   *kardiólog/*kardiologik* 'cardiologist' → *kardiologíčeskij* 'cardiological'
            *kardiológi[j]-a/*kardiologika* 'cardiology'

      b.   *xirúrg/*xirurgik* 'surgeon' → *xirurgíčeskij* 'surgical'
            *xirurgí[j]-a/*xirurgika* 'surgery'

English creates -*ist*- adjectives by conversion (and no one wonders about the loss of agentivity), Russian uses the suffix -*ısk*- (surface [esk]/[sk]):

(42) a.   *kommuníst* 'a communist' → *kommunistíčeskij* 'communist (attr.)'
      b.   *artíst* 'an artist, performer' → *artistíčeskij* 'artistic'   cranberry root

The adjectives *communist* and *capitalist* are not derived from the corresponding human nouns

7.2   Russian augmented feminitives and ambiguity avoidance

Ambiguity avoidance may drive complex affix formation in feminitives:

(43)   a.   *grek/grečánka* 'a Greek' (cf *grečka* 'buckwheat')   *-ʲan-ŭk-*
       b.   *slugá/služánka* 'servant' (cf. *služka* 'lay brother')   *-ʲan-ŭk-*
       c.   *górec/gorʲánka* 'mountain-dweller' (cf. *gorka* 'mountain.DIM*)   *-ĭc-/-ʲan-ŭk-*

Other cases cannot be so explained:

(44)   a.   *cʲórt/certóvka* 'devil', *plut/plutóvka* 'rogue'   *-ov-ŭk-*
       b.   *geógraf/geografíčka* 'geography teacher'   *-ik-ŭk-*

But here an augment is also used in derivation

7.3   Russian augmented plurals

The plural nominative *-a-* is **both accented and dominant with non-neuter nouns** (Coats 1976, Zaliznjak 1985, Alderete 1999:166, Timberlake 2004:136, Munteanu 2021, Iordanidi 2020):

(45)   a.   *proféssor* 'professor.NOM'   b.   *professorá* **'professor.PL.NOM'**
            proféssora **'professor.GEN'**   *professorámi* 'professor.PL.INS'

There exist no non-neuter *a*-plurals that have stress on the stem
Two exceptions: the "baby-diminutive" suffix *-ĭnŭk-* (surface [ʲonok]/[ʲonk]), suppletive plural form *-ĭnt-* [ʲat], see Gouskova and Bobaljik 2022, and **augmented plurals in *-ĭj-*:**

(46)   a.   *brat/brátʲja* 'brother.SG/PL'   masculine, stem-final stress
       b.   *knʲazʲ/knʲazʲjá* 'prince.SG/PL'   masculine, inflectional stress
       c.   *déverʲ/deverʲjá* 'husband's brother.SG/PL'   masculine, inflectional stress
       d.   *kólos/kolósʲja* 'ear (of a cereal).SG/PL'   masculine, stem-final stress
       e.   *dérevo/derévʲja* 'tree.SG/PL'   neuter, stem-final stress
       f.   *krɨló/krɨlʲja* 'wing.SG/PL'   neuter, stem-final stress

Matushansky 2024: these roots are **underlyingly specified as singular**, the augment is needed to enable morphological pluralization

As the suffix *-ĭj-* is neuter, it cannot combine with [+human] roots → complex affix formation

Evidence: different stress patterns for human and inanimate nouns

7.4   Russian verbalization: loanword stems and ACT-*be*

Affix pleonasm (Gardani 2015) in loanword integration: with loanword roots the suffix *-ow-* is often preceded by the sequences *-iz-*, *-ir-*, and *-iz-ir-*:

(47)   a.   kompil-*ír*-ov-a-tʲ 'to compile'
       b.   social-iz-*ír*-ov-a-tʲ 'to socialize'
       c.   real-iz-ov-*á*-tʲ 'to realize'

Extremely productive with loan stems

These loan suffixes cannot function as verbalizers (unlike in Serbo-Croatian (Simonović 2015))

The suffixal complex *-n-ik-e[j]-* (surfacing as *-niča[j]-*):

(48)	a.	báb	-n	-ič	-aj	-e	t	b.	bab	-n	-ik
		woman-ADJ	-N -	VBLZ	-PRES	3SG			woman	-ADJ	-NMLZ
		womanize.PRES.3SG							*womanizer*		

(49)	a.	nérv	-n	-ič	-aj	-e	t	b.	nérv	-n	-aj	a
		nerve -ADJ	-NMLZ	-VBLZ	-PRES	3SG			nerve -ADJ	-LF	FSG	
		be nervous.PRES.3SG							*nervous*			

(50)	a.	jábed	-n	-ič	-aj	-e	t	b.	jabed-a
		sneak -ADJ	-NMLZ	-VBLZ	-PRES	3SG			sneak-NOM
		carry tales.PRES.3SG							*a sneak, a telltale*

Also subject to "agent incorporation" (see Grestenberger and Kastner 2022 for references and discussion): their interpretation does not involve the agent even when they look like they might be denominal (48)

7.5   Hebrew adjectival doublets

Laks 2024 (citing Bolozky 2023): systematic existence of an *-ani-* variant for adjectives derived with the suffix *-an-*:

(51)   a.   kapdan, kapdani 'meticulous'
       b.   mahapexan, mahapexani 'revolutionary'

The suffix *-an-* is ambiguous (like the English *-ian-*), deriving both nouns and adjectives:

(52)   a.   saxyan 'swimmer'   c.   kabcan 'beggar'
       b.   saxkan 'actor'   d.   yevuan 'importer'

Nouns in *-an-* can be further suffixed with the default adjectivizing suffix *-i-* yielding 'typical of, related to, etc.' interpretation (e.g., *saxkani* 'actor-like, actor-related')

A few *-ani-* adjectives have no *-an-* counterpart (Laks lists *racxani/*racxan* 'murderous, cruel')

The *-an-*/*-ani-* doublets differ in animacy: *-an-* adjectives can only apply to animate nouns

Proposal: this is complex suffixation with semantic deletion of the inner agentive suffix *-an-*:

(53)   a.   **adjective in -*an*-**   b.   **doublet in -*ani*-**   c.   **denominal adjective in -*i*-**

If the suffix *-an-* is specified to derive animates (adjectives or nouns) semantically, semantic deletion will remove this

The nominalizing agentive *-an-* derives agents and instruments (e.g., *mazgan* 'air-conditioner'), yet, as discussed by Laks 2015, *-an-*-instruments are being "phased out"

Hence no doublets, just parallel derivation, with occasional gaps (*racxani/*racxan* 'murderous, cruel', and the opposite: *aclan/%aclani* 'lazy'), just like *whimsical*)

Laks 2024: "the addition of the suffix *-i* is motivated by the desire to reduce polycatergoriality in the language", i.e., to distinguish adjectives from agent nouns

Once again, result-orientation (lookahead)

7.6   Romance "interfixes" and suspended affixation

Plénat and Roché 2004, Plénat 2005: diminutive "interfixes" in French:

(54)   a.   tarte 'cake' → tart**el**ette 'tartlet' (cf. boule 'ball' → boulette 'meatball, pellet')
       b.   nappe 'tablecloth' → napp**er**on 'doily' (cf. blouse 'blouse' → blouson 'jacket')
       c.   brique 'brick' → briqu**et**ier 'bricklayer' (cf. pot 'pot' → potier 'potter')

Plénat and Roché 2004: three apparent options:
  ➢   augmented suffixes (e.g., -*elette*-)
  ➢   unattested intermediate stems (e.g., **tartelle*)
  ➢   semantically neutral interfixes

Driving force: **phonological constraints** (result-oriented, lookahead)
NB: all these "interfixes" have a separate life as diminutives or nominalizers

Roché 2002 (for Occitan): "**postponed suffixation**" with a semantically neutral suffix

(55)   a.   *clau* 'key' → *claveta* 'little key; bushing key, dowel…'
       b.   *clavetièra* 'keyhole'

Despite the presence of the diminutive suffix, (55b) is semantically linked to the root only (cf. Haspelmath 1995 for the French -*erie*-)

7.7   English T-stems

Stump 2019: **the English suffix -*at(e)*-** has a dual status: as a verbalizer (*saliva/salivate*) and as a former of a T-stem used in further derivation:

(56)   a.   provoke → provoc**ative**, provoc**ation**
       b.   form → form**ative**, form**ation**
       c.   explain → explan**ation**, explan**atory**
       d.   probe → prob**ation**

Hypothesis: maybe it's the suffix observable in *celibate*, *reprobate*, *apostate*…

8   CONCLUSION AND FURTHER QUESTIONS

The DM approach to complex affix formation predicts the semantic inertness of the inner affix
The fact that it is the inner one is probably extralinguistic, it's historical

Complex affixes are useful for:

  ➢   **affix conglutination** (Haspelmath 1995): systematic optional semantic deletion of one suffix in the context of another

       semantic deletion would be obligatory in such a structure due to type clashes and incoherence; surface ambiguity can be explained by the simultaneous availability of two structures

  ➢   **semantic enrichment and new suffix formation**: in function of the retention of the presuppositions of the inner suffix

Complex affixes *per se* are expected to happen, the novelty is in the semantic deletion

Complex affix formation can be driven by ambiguity avoidance (e.g., in feminitives), selectional restrictions, vocabulary enrichment, etc.

This is a clear lookahead (result-orientation), but I don't see how it can be avoided

9   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.

Alderete, John D. 1999. Morphologically Governed Accent in Optimality Theory. Doctoral dissertation, Rutgers University.

Aronoff, Mark. 1976. *Word Formation in Generative Grammar*. Cambridge, Massachusetts: MIT press.

Bobkova, Natalia. 2022. Statistical modelization of suffixal rivalry in Russian: adjectival formations in -*sk*- and -*n*-. *Corpus* 23. https://doi.org/10.4000/corpus.6580.

Bochner, Harry. 1993. *Simplicity in Generative Morphology*. Berlin: De Gruyter Mouton. https://doi.org/10.1515/9783110889307.

Bolozky, Shmuel. 2023. The patterns *CaCCan* and *CaCCani*: processes of differentiation in nouns and adjectives in contemporary Hebrew, and implications for the teaching of Hebrew as a second language [In Hebrew]. *Hebrew Higher Education* 25, 49–58.

Coats, Herbert S. 1976. *Stress Assignment in Russian I: Inflection*. Current Language and Linguistics 9. Edmonton: Linguistic Research.

Cohen, Ariel. 2016. A semantic explanation for the External Argument Generalization. *Morphology* 26(1), 91-103. https://doi.org/10.1007/s11525-016-9281-8.

Cohen, Ariel. 2018. The square of disposition. *Glossa: a journal of general linguistics* 3(1)(90), 1–19. https://doi.org/10.5334/gjgl.476.

Demidov, Dmitrii G., and Alexander M. Kamchatnov. 2020. Причастодетие и его роль в русском историческом словообразовании [Prichastodetie (Gerundivum) and its role in the Russian historical word formation]. *Древняя Русь. Вопросы медиевистики [Old Russia. The Questions of Middle Ages]* 80(2), 98–111. https://doi.org/10.25986/IRI.2020.80.2.007.

Gardani, Francesco. 2015. Affix pleonasm. In *An International Handbook of the Languages of Europe*, vol. 1, ed. by Peter O. Müller, Ingeborg Ohnheiser, Susan Olsen and Franz Rainer, 537–550. Berlin, München, Boston: De Gruyter Mouton. https://doi.org/10.1515/9783110246254-032.

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. https://doi.org/10.1007/s11049-021-09530-1.

Grestenberger, Laura, and Itamar Kastner. 2022. Directionality in cross-categorial derivations. *Glossa: a journal of general linguistics* 2022(7(1)). https://doi.org/10.16995/glossa.8710.

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.

Heim, Irene, and Angelika Kratzer. 1998. *Semantics in Generative Grammar*. Oxford: Blackwell.

Iordanidi, Sofia I. 2020. К истории именительного множественного на -*á* в именах несреднего рода [On the history of the nom. pl. inflexion in -*á* of non-neuter nouns]. *Труды Института русского языка им. В.В. Виноградова [Working Papers of the V.V. Vinogradov Russian Language Institute]* 1(23), 106–123. https://doi.org/10.31912/pvrli-2020.1.6.

Itkin, Ilja B., and Anna 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.

Kenesei, István, Robert Michael Vágó, and Anna Fenyvesi. 1998. *Hungarian*. London: Routledge.

Kiefer, Ferenc. 2001. The negative suffix in Hungarian. *Sprachtheorie und germanistische Linguistik* 11(2), 195-208.

Kiefer, Ferenc. 2005. Types of conversion in Hungarian. In *Approaches to conversion/zero-derivation*, ed. by Laurie Bauer and Salvador Valera Hernández, 51–65. New York: Waxmann Verlag Gmbh.

Kiefer, Ferenc. 2015a. Hungarian. In *Word-formation: An International Handbook of the Languages of Europe*, ed. by Peter O. Müller, Ingeborg Ohnheiser, Susan Olsen and Franz Rainer, 3308-3326. Berlin: De Gruyter Mouton.

Kiefer, Ferenc. 2015b. The privative derivational suffix in Hungarian: A new account. In *Negation in Uralic Languages*, ed. by Miestamo Matti, Tamm Anne and Wagner-Nagy Beáta, 601-614. John Benjamins Publishing Company. https://doi.org/doi:10.1075/tsl.108.21kie.

Kiparsky, Valentin. 1975. *Russische historische Grammatik. Band Ill. Entwicklung des Wortschatzes*. Heidelberg: Winter.

Laks, Lior. 2015. Variation and change in instrument noun formation in Hebrew and its relation to the verbal system. *Word Structure* 8, 1-28.

Laks, Lior. 2024. Doublets in Hebrew adjective and noun formation. *Brill's Journal of Afroasiatic Languages and Linguistics* 16(2), 311-347. https://doi.org/10.1163/18776930-01602001.

Levin, Beth, and Malka Rappaport Hovav. 1988. Non-event -*er* nominals: A probe into argument structure. *Linguistics* 26, 1067–1083.

Lipták, Anikó, and István Kenesei. 2017. Passive potential affixation: syntax or lexicon? *Acta Linguistica Academica* 64(1), 45-77. https://doi.org/10.1556/2062.2017.64.1.2.

Lopatin, V. V., and I. S. Uluxanov. 2016. *Словарь словообразовательных аффиксов современного русского языка [Dictionary of derivational affixes of Modern Russian]*. Moscow: Russian Academy of Sciences.

Luís, Ana, and Andrew Spencer. 2005. A paradigm function account of 'mesoclisis' in European Portuguese. In *Yearbook of Morphology 2004*, ed. by Geert Booij and Jaap van Marle, 177–228. Dordrecht: Kluwer.

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.

Markov, V.M. 1984. *Русское семантическое словообразование [Russian semantic word formation]*. Izhevsk: Udmurt State University.

Matushansky, Ora. 2024. One case of plural augmentation in Russian. Paper presented at *SinFonIJa 17*, Nova Gorica (Slovenia), September 26–28, 2024.

Munteanu, Andrei. 2021. Homophony avoidance in the grammar: Russian nominal allomorphy. *Phonology* 38(3), 401–435. https://doi.org/10.1017/S0952675721000257.

Olsen, Susan. 2019. The instrumental -*er* suffix. In *Of Trees and Birds. A Festschrift for Gisbert Fanselow*, ed. by J.M.M. Brown, Andreas Schmidt and Marta Wierzba, 3–14. Potsdam: University Press Potsdam. https://doi.org/10.25932/publishup-43060.

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 Colleman and Dirk Noël, 172–193. London: Palgrave Macmillan UK. https://doi.org/10.1057/9780230524637_8.

Plénat, Marc. 2005. *Rosinette, cousinette, starlinette, chipinette*. Décalage, infixation et épenthèse devant -*ette*. In *Questions de classification en linguistique : méthodes et descriptions. Mélanges offerts au Professeur Christian Molinier*, ed. by Injoo Choï-Jonin, Myriam Bras, Anne Dagnac and Magali Rouquier, 275-298. Berne: Peter Lang.

Plénat, Marc, and Michel Roché. 2004. Entre morphologie et phonologie : la suffixation décalée. In *Lexique*, ed. by Danielle Corbin and Martine Temple, 159-198.

Rainer, Franz. 2015. Agent and instrument nouns. *Word-Formation: An International Handbook of the Languages of Europe. Berlin/Boston: De Gruyter Mouton*, 1304–1316.

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.

Roché, Michel. 2002. La suffixation décalée avec oc. *-ièr(a)*. In *Hommage à Jean-Louis Fossat*, ed. by L. Rabassa. *Cahiers d'études romanes*, 319-334.

Simonović, Marko. 2015. Lexicon immigration service: Prolegomena to a theory of loanword integration. Doctoral dissertation, Utrecht University.

Soukka, Maria. 2000. *A descriptive grammar of Noon: A Cangin language of Senegal*. Munich: LINCOM Europa.

Stump, Gregory. 2017a. Polyfunctionality and the variety of inflectional exponence relations. In *Perspectives on Morphological Organization: Data and Analyses*, ed. by Ferenc Kiefer, James Blevins and Huba Bartos, 9-30. Leiden: Brill. https://doi.org/10.1163/9789004342934_003.

Stump, Gregory. 2017b. Rule conflation in an inferential-realizational theory of morphotactics. *Acta Linguistica Academica* 64(1), 79–124, http://akademiai.com/loi/2062.

Stump, Gregory. 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. 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. https://doi.org/10.1017/9781108807951.011.

Stump, Gregory. 2023. *Morphotactics: A Rule-Combining Approach* 169. Cambridge Studies in Linguistics. Cambridge: Cambridge University Press. https://doi.org/10.1017/9781009168205.

Timberlake, Alan. 2004. *A Reference Grammar of Russian*. Cambridge: Cambridge University Press.

Vinogradov, V. V. ed. 1952. *Грамматика русского языка [The Grammar of the Russian Language]*. Moscow: Soviet Academy of Sciences.

Wood, Jim. 2015. *Icelandic morphosyntax and argument structure*. New York: Springer.

Zaliznjak, Andrey A. 1985. *От праславянской акцентуации к русской [From Proto-Slavic accentuation to Russian one]*. Moscow: Nauka.

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.