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ON THE THEME OF DEVERBAL NOUNS

Formal Description of Slavic Languages (FDSL) 17, Brno, November 20-22, 2024

1 INTRODUCTION: THE RUSSIAN THEME

The Slavic verb may contain additional morphology between the lexical stem and tense:

- (1) a. PREFIX + stem + v (+TH) + ASP + TH + TENSE + AGR Russian
 b. pere- start- ov- ïv- aj- e- t
 over start V ? IMPF TH PRES 3SG
is restarting

Some verbs are athematic (2): nothing intervenes between the stem and tense. Most are not (3):

- | | |
|--|---|
| <p>(2) a. lez- e- t
 climb PRES 3SG
 <i>is climbing/climbs</i></p> | <p>b. lez- l- a
 climb PAST FSG
 <i>was climbing/climbed</i></p> |
| <p>(3) a. čit- aj- e- t
 read TH PRES 3SG
 <i>is reading/reads</i></p> | <p>b. čit- a- l- a
 read TH PAST FSG
 <i>was reading/read</i></p> |

The role of the thematic suffix is controversial

Unlike in many other Slavic languages, the suffix *-e-* in (1b) and (2a) is tense, not the thematic suffix, cf. (3a)

This talk: the thematic suffix is not *v* (or rather, need not be *v*)

Evidence: lack of a semantic distinction between thematic and athematic agentive derivatives from the same verbal stem + categorial restriction of an athematic agentive suffix

2 THE THEMATIC AGENTIVE SUFFIX *-TELʲ-*

Monomorphemic, **purely deverbal and added on top of the theme suffix:**

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

Russian *-telʲ-* nouns produce no derivations from other categories and no Patients, Locations or facilitating instruments

This is Rappaport Hovav and Levin’s (1992) external argument generalization:

- (4) a. pre- obraz- ov- a- telʲ- agent/instrument
 trans-form VRB TH TEL
transformer
- b. vi-ključ- a- telʲ ← vi- ključ- a- tʲ instrument
 turn.off TH TEL ← PRFX-key TH INF
on-off switch to turn off
- c. uč- i- telʲ ← uč- i- tʲ agent
 teach TH TEL ← teach TH INF
teacher to teach

Non-episodic readings only: *-telʲ-* nouns mostly denote vocations or instruments:

- (5) a. ljubitelʲ ‘amateur’, ljubitelʲ muziki ‘music lover’
 b. preobrazovatelʲ ‘transformer’, glušitelʲ ‘muffler’

As expected (cf. Roy and Soare 2014, Marvin 2016), *-telj-* nouns **resist complements that are specific** but allow non-specific ones

- (6) a. *preobrazovatelj ržavčini* instrument
 transformer.TEL rust.GEN
rust transformer
- b. *preobrazovatelj našego Otečestva* vocation (not a profession)
 transformer.TEL our.GEN motherland.GEN
the transformer of our motherland

Quirky case-assignment is impossible:

- (7) a. *pravitelj strani/*stranoj* b. *podražatelj Džurera/*Džureru*
 rule.TEL country.GEN/INS imitate.TEL Durer.GEN/DAT
the ruler of the country *an imitator of Durer*

Inner (lexical) aspect prefixes (4), (6) and the secondary imperfective suffix can be present

The presence or absence of the secondary imperfective suffix depends on the stem, but doublets exist:

- (8) a. *u.lavlj- i- a- telj* ← *u.lav lj- i- a- tj*
 PREFIX.catch IMPFV TH ER PREFIX.catch TH IMPFV TH INF
a device for catching *to catch (imperfective)*
- b. *u.lov- i- telj* ← *u.lov- i- tj*
 PREFIX.catch TH ER PREFIX.catch TH INF
a device for catching *to catch*

Zaliznjak 1977 lists compounds derived from both: *gazoulávlivatelj* ‘gas-catcher’ and *gazoulovitelj* ‘gas-catcher’, but *zvukoulávlivatelj* ‘sound trapper’ vs. *zvukoulovitelj* ‘sound trapper’, *grázeulovitelj* ‘dirt-trapper’, *pileulovitelj* ‘dust-trapper’, etc. – the perfective stem seems more productive

Resulting interpretations are semantically transparent, some of the few exceptions are:

- (9) a. *roditelj* ‘parent’ ← *roditi* ‘to give birth to (a child)’
 b. *nastojatelj* ‘abbot’ ← *nastojati* ‘to insist, persist’
 c. *obivatelj* ‘average man, philistine’ ← no independently attested verbal stem, should be **obivatj* (from *bivatj* ‘to be’ (habitual) + prefix)

Summary: *-telj-* agentives are...

- purely deverbal
- obligatorily thematic
- able to contain perfectivizing inner aspect prefixes and the secondary imperfective suffix, whose role is unclear and root-dependent (cf. Pazelskaya and Tatevosov 2006, Pazelskaya 2009a, b, 2012, Tatevosov 2011, 2013, 2015 on event nominals)
- incapable of quirky case assignment
- non-episodic and do not entail that a base event has occurred ([–event] in the terms of Rappaport Hovav and Levin 1992), though note *slúšatelj* ‘listener’)

This is a **stem-level suffix** also by Alexiadou and Schäfer’s (2010) diagnostics

No surprises, this will be our baseline

3 ATHEMATIC SUFFIXES

Many suffixes forming athematic agentive nominals (see Naccarato 2017:63 for a partial list)

Lychyk 1995, Naccarato 2019:69: agentive suffixes are often non-category-specific and have broader distribution (true not only for Russian, but also for other languages, cf. Booij 2007)

3.1 Non-selecting agentive suffix *-ščik-* (underlying *-iščik-* or *-jščik-*)

Witkowski 1981: historically a combination of the Turkic agentive suffix *-čy/-žy-* + *-ŭk-* (see also Vaillant 1964)

Putative allomorph *-čik-*, which is used after verbal dental-final stems (see Paykin 2003)

Lychyk 1995: the suffix *-ščik-* yields mostly nouns denoting workers or specialists in the field determined by the stem, which can be [\pm V]

He also notes that many deverbal *-ščik-* nouns have an intermediate nominal stage

- (10) a. *plazmenščik* ‘physicist who studies plazma’ ← *plazmennij* ‘plasma’_{ADJ}
 b. *ogranščik* ‘precious stone cutter’ ← *ogranitʹ* ‘to facet’
 c. *detektivščik* ‘a mystery novel writer’ ← *detektiv* ‘a mystery novel’

Professions and instruments are also possible:

Palatalization in (12a) is due to the suffix (most likely, underlyingly *-iščik-*)

- (11) a. *upakovščik* ‘packer’ ← *u.pakov-a-tʹ* ‘to pack’ profession/doer
 b. *frezerovščik* ‘milling machine operator’ ← *frezerov-a-tʹ* ‘to mill’ profession
 (12) a. *tralʹščik* ‘trawler, mine-sweeper’ ← *tral-i-tʹ* ‘to trawl’ instrument
 b. *bombardirovščik* ‘bomber/bomber pilot’ ← *bombardirov-a-tʹ* ‘to bomb’

Cases like (11)-(12b) cannot be treated as root-based derivation, they contain affixes

Complements are possible, both specific and non-specific, but no quirky case assignment cases that I know of:

- (13) a. *postavščik* *prodovolʹstvija* ← *po.stav-i-tʹ* ‘to supply’ profession
 supplier *provisions.SG.GEN*
a food supplier
 b. *Upakovščik* *moego zakaza, vidimo, dalʹtonik...* eventive
 packer *my.GEN order.GEN* *apparently color-blind*
The packer of my order is apparently color-blind.

Secondary imperfective stems are not attested

Prefixed verbal stems are possible (e.g., vz*lómščik* ‘burglar’, sv*árščik* ‘welder’)

When deverbal, no trace of the thematic suffix can be detected

Possible objection: the suffix is yer-initial, and Russian has a vowel-before-vowel deletion rule. See Section 5

The choice between the two patterns of derivation is stem-based, sometimes both are possible:

- (14) a. *strax-* *ov-* **a-** *l-* *a* (15) a. *pere-* *strax-ov-* **a-** *l-* *a-* *sʹ*
 fear VBZ TH PAST FSG over- fear VBZ TH PAST FSG REFL
[she] insured *[she] played it safe*
 b. *strax-* *ov-* **a-** telʹ b. *pere-* *strax-ov-* ščik
 fear VBZ TH TELER over- fear VBZ ŠČIKER
insurer *someone who usually plays it safe*

The outcomes of *-ščik-* and *-telʹ-* are semantically indistinguishable

3.2 Deverbal expressive agentive suffix *-un*

Limited productivity suggesting root-based derivation, accentually dominant

Vinogradov 1952 treats the suffix *-un* as non-productive, but Czerwiński 2015 lists one recent derivation, *nesún* ‘office thief’ from *nesti* ‘to carry’, and there is a yet more recent case, *ždun* ‘waiting person’ (from *ždati* ‘to wait’). More cases in Makleeva 2022

Strictly deverbal and athematic yielding agentive (Vinogradov 1952:222) and instrumental (Vinogradov 1952:238) nominals, idiosyncratically also plant and animal names:

Seven non-deverbal derivatives out of over 120 derived *un*-nouns in Zaliznjak 1977. See Makleeva 2022 for the rise of non-agentive meanings and non-verbal bases in substandard Russian

- (16) a. *govor-un* ‘talker, chatterbox’ ← *govor-i-tj* ‘to talk’
b. *kol-un* ‘wood-chopper’ ← *kol-o-tj* ‘to prick, shop’
c. *beg-un* ‘runner’ (human or technical) ← *beg-a-tj* ‘to run’
d. *strig-un* ‘foal; Lethrus beetle’ ← *stričj* ‘to cut (hair)’ (root *-strig-*)

The suffix can be shown to attach to athematic stems

3.2.1 Phonology of *un*-nouns

Intuition: the presence of a palatalizing thematic suffix should be reflected in the palatalization of the stem-final consonant

One case of the palatalization of the stem-final consonant, *pisún* ‘pecker’, stems from the dialectal variant *pisatj* rather than the standard *pisatj* ‘to piss’

No stem-final palatalization for ***i*-verbs**, a highly productive thematic class:

- (17) a. *govorún* ‘talker, chatterbox’ ← *govor-i-tj* ‘to talk’ (not **govorjún*)
b. *forsún* ‘swaggerer’ ← *fors-i-tj* ‘to swagger, show off’ (not **forsjún*)
c. *xodún* ‘untiring walker, a part of bellows’ ← *xod-i-tj* ‘to walk’ (not **xodjún*)

Agentive semantics (absent from deadjectival *un*-nouns) suggests the verbal core

For the **productive *-a/-aj-* suffix**, the deletion of the vowel is not expected (as it is unattested anywhere else):

- (18) a. *védaj* ‘to know, arch.’ → *vedún* ‘wise man, wizard’
b. *opekáj* ‘to be a warden of, protect’ → *opekún* ‘guardian, trustee’

The situation is more complicated with **second-conjugation *e*-verbs** (unproductive, except for onomatopoeic sound verbs, cf. Itkin 2013)

No palatalization by default (ca. ten nouns):

- (19) a. *vizgún* ‘squealer’ ← *vizž-a-tj* ‘to squeal’ (underlying: *vizg-e-tj*)
b. *treskún* ‘chirrer, cracker’ ← *trešč-a-tj* ‘to chirr, crack’ (underlying: *tresk-e-tj*)

Velar palatalization (palatalization + mutation) for two stems:

Phonological generalization (no explanation): only these two stems end in a sonorant-velar cluster. For (20b) there is no related underived word with a surface [k]

- (20) a. *molčún* ‘a taciturn person’ ← *molč-a-tj* ‘to be silent’ (underlying: *molk-e-tj*)
b. *vorčún* ‘grumbler’ ← *vorč-a-tj* ‘to grumble’ (underlying: *vork-e-tj*)

Nominalizations from these verbal stems can be athematic (e.g., *vizg* ‘squeal’, *tresk* ‘crackle’, *govor* ‘sound of voices, accent’), but a hypothetical denominal formation just pushes the issue one derivational step away

Strictly deverbal derivation can be athematic, which seems to entail that it is not the thematic suffix that creates the verb

I will not discuss the issue of whether a prior event instantiation is implied, since I think this is irrelevant (see also Alexiadou and Schäfer 2010)

3.2.2 Argument structure of *un*-nouns

Generally, no complement possible

Intuition: *un*-nouns are expressive (derogatory), internal arguments are excluded pragmatically

Some non-derogatory *un*-nouns combine with a genitive or with an event modifier:

- (21) a. opekun Miši ‘Misha’s guardian’
b. prigun s šestom ‘pole jumper, lit. jumper with pole’

The secondary imperfective suffix is impossible

Only two prefixed bases in Zaliznjak 1977: *poloskún* ‘Acilius (beetle), lit. rinser’ and *potaskún* ‘slut (male)’, but Internet searches reveal, among others:

- (22) a. opozdun ‘habitually late person’ ← opozdáti ‘to be late’
b. poprigun ‘fidget’ ← poprígati ‘to jump a bit’

Prefixed bases (22) require event semantics, hence (presumably) categorization

Many *un*-nouns have special meanings (e.g., *plivún* ‘quicksand’ (from *plít’* ‘to swim’), *grizún* ‘rodent’ (from *grízt’* ‘to gnaw’)) suggesting first-cycle formation

But then there is no explanation for why *-un-* only combines with verbal roots

The existence of a V-selecting athematic nominalizing suffix with an agentive interpretation argues against treating thematic suffixes as verbalizers

Kwapiszewski 2020 treats verbal stems in Polish athematic deverbal nominals as contextually categorized by the higher Voice and Asp without an overt verbalizer, but then hedges on whether thematic suffixes are verbalizers

A possible alternative is the hypothesis that thematic suffixes and athematic agentive suffixes lexicalize the same semantic function (cf. Kwapiszewski 2021, who suggests it is Voice)

Problem: augmented nominalization (see Section 5) and passive participles (Bešlin 2023a, b, [to appear])

4 INTERMEDIATE CONCLUSION

Russian has several agentive nominalization suffixes that attach to athematic verbal stems:

- *-ščik-*, *-nik-*, *-k_F* are non-selective (can attach to nominal and adjectival stems)
- *-un-* is strictly deverbal

Semantically, agentives derived with *-telj-* and with *-ščik-* are indistinguishable, *-un-* supplies an additional pejorative flavor:

Nouns in *-un* are generally animate, but not necessarily; diminutives of agents can denote instruments (e.g., *begún*, *begunók* ‘runner’)

- (23) a. brizg-un ‘archer fish’ (if transparent: someone habitually sprinkling [water]) –TH
b. brizg-a-telj ‘sprinkler’ +TH
- (24) a. govor-un ‘chatterbox’ –TH
b. gromk-o-govor-i-telj ‘loudspeaker’ +TH

Evidence that the agentive suffix *-ščik-* combines with athematic stems will be provided

The phonology of *un*-agentives is incompatible with the retention of the thematic suffix

One might try to argue that the suffix *-un-* is depalatalizing. This would not explain *aj*-stems

The suffix *-un-* derives agentive nouns from athematic verbal stems:

- if a verbal stem can be selected without a thematic suffix, the thematic suffix is not a categorizer
- the interpretation of such agentives implies event semantics (*event* in the sense of eventuality, including statives)
- non-deverbal *un*-nouns suggest that this event is not supplied by the suffix (but this could also just be further grammaticalization of the suffix)
- higher functional heads (the secondary imperfective suffix, the semelfactive suffix, even the suffix *-ov-*) are impossible

Thematic suffixes are unlikely to be verbalizers

They could lexicalize Voice (i.e., the functional projection in whose Spec the external argument is merged), cf. Kwapiszewski 2021, but this would fail to explain why themes are retained in passive participles (cf. Bešlin 2023a, b, [to appear])

The conflict between c-selection (*-un-* wants verbs) and first-cycle diagnostics (no verbalizing, thematic or aspectual suffixes, special meaning) goes away if roots are not acategorical

However, thematic suffixes do not seem to be just “glue”

5 AUGMENTED ATHEMATIC SUFFIXES

Paykin 2003: the choice between the suffix *-ščik-* and the suffix *-lščik-* is phonological:

- (25) a. *sušiti* ‘to dry’ → **sušščik*, *sušilščik* ‘drier’ (a person)
b. *nositi* ‘to carry’ → **nosščik*, *nosilščik* ‘a porter, carrier’

In fact, it does not seem to be phonologically conditioned:

- (26) a. *bol-e-ti* ‘to support, be a fan of’ → *bol-e-lščik* ‘to support, be a fan of’
b. *smol-iti* ‘to coat with tar’ → *smol-i-lščik*, *smolščik* ‘a tarring professional’
c. *smol-iti* ‘to smoke (a cigarette)’ → *smol-i-lščik* ‘a chain-smoker’

The nominalizing suffix *-nik-* also has a *-l'nik-* variant, as do *-ič-* (*-l'ic-*) and *-ŭk-*_F (*-l'ŭk-*) and a few others:

- (27) a. *okuč-nik* ‘hiller’ ← *okuč-i-ti* ‘to earth up’
b. *budi-l'nik* ‘alarm clock’ ← *bud-i-ti* ‘to wake up’
- (28) a. *torgov-ec* ‘merchant’ ← *torgov-a-ti* ‘to trade’
b. *skita-l-ec* ‘wanderer’ ← *skit-a-ti-sja* ‘to wander’
- (29) a. *moj-k-a* ‘sink, washer’ ← *mi-ti* ‘to wash’ (cf. imperative *moj*)
b. *gre-l-k-a* ‘hot-water bottle’ ← *gre-ti* ‘to warm up’

This *-l-* is far from innocent: it requires the verbal theme (another type of c-selection)

5.1 The semantic contribution of *-l-*

It seems that augmented derivation is more recent and more productive

When both *-l-ŭk-* and *-ŭk-* are possible for the same stem, the non-augmented variant generally yields a process nominal and the augmented one, an instrument:

- (30) a. *davilka* ‘a press’ ← *dav-i-tj* ‘to press’
 b. *davka* ‘a crush, jam’
- (31) a. *doilka* ‘a malking machine’
 b. *dojka* ‘milking’

However, in the absence of a pair the reverse distribution of interpretations is possible (though Place *-l-ŭk-*nouns are probably derived from instruments; there is no event reading):

- (32) a. *dudka* ‘a pipe’ ← *dud-e-tj* ‘to pipe’ instrument
 b. *lejka* ‘a watering can’ ← *li-tj* ‘to pour’
- (33) a. *kurilka* ‘a smoking room’ ← *kut-i-tj* ‘to smoke’ place
 b. *parilka* ‘a sweating room (in a sauna)’ ← *par-i-tj-sja* ‘to take a steam bath’

All *-l-ščik-* derivations are animate

5.2 Is *-l-* a deverbalizer?

The purpose of *-l-* seems to be **undoing whatever it is that the thematic suffix did**

The *-l-* augment is also an adjectival suffix (anciently also forming the active past participle, now the past tense)

And it is also used in deverbal adjectives (e.g., *xolodil'nij* ‘cooling’), which may be the intermediate step

There is no semantic difference between *-l-nik-* and *-nik-*, or *-l-ŭk-* and *-ŭk-*
 For *-l-ščik-* and *-ščik-* there is the animacy distinction

And the addition of *-l-* does not determine the realization of the nominalizer (cf. Maša’s talk)

- (34) a. *rub-i-telj* ‘someone who fells or chops, *occ.*’ ← *rub-i-tj* ‘to fell (trees), hew, chop’
 b. *rub-ščik* ‘tree feller, chopper (anim.)’, ‘chopper (inanim.)’
 c. *rub-i-lj-ščik* ‘tree feller, chopper’ (anim.)
 d. *rub-i-lj-nik* ‘knife-switch’

Secondary imperfective stems become possible (suggesting that *-l-* is high):

Sometimes, only the null allomorph is possible, as is the case for *-l-ŭk-*

- (35) a. *pro.cěž-iv-a-lj-ščik* ← *pro.cěž-iv-a-tj* ‘to strain’ (PRF: *pro.ced-i-tj*)
 strain IMPF TH L-ŠČIK
strainer (human)
- b. *s.šiv-Ø-á-l-k-a* ← *s.ši-v-a-tj* ‘to sew together’ (PRF: *s.ši-tj*)
 with.sew IMPFV TH L-NMZ NOM
a machine for sewing things together

Thematic nominalization seems to require an additional derivational step

One can try to argue that this is hiatus resolution. I won’t, since there might be another augment around, *-n-* (e.g., *stojanka* ‘stop’, *soderžanka* ‘kept woman’, etc.) that is also implied in event/result nominalizations (see below)

Is the secondary imperfective suffix **semantically active** in augmented nominalizations?

5.3 On the stems of *-telj-* nouns

Possibility: *-telj-* is derived from the infinitive (and the double [t] is degeminated)

Evidence: athematic verbs with infinitives not ending in [tj]

Only two of them combine with *-telj-*:

Although in other Slavic languages such examples are regular (Luka Szucsich, p.c.)

- (36) a. *blʹustí* ‘to guard’ (*-blʹud-*) → *blʹustitelʹi* ‘keeper, guardian’
 b. *rastí* ‘to grow’ (*-rost-*) → *rastitelʹnij* ‘vegetal’ (via the missing stem **rastitelʹ*;
 there is also the transitive verb *rastítʹ* ‘to grow’, but it is unlikely to be the base)

Maybe a complex suffix

(36b) can also be explained as an the exceptional “theme-changing” *-telj-*-derivative (Itkin 2007:168-169)

6 EVENT/RESULT (*-ING*) NOMINALIZATIONS

On the semantic side both derivations allow for the event readings *and* the result reading:

- | | | | | | | | | | | | |
|---------|-------------------|-----------|-----------|----------|--|----|----------------|-----------|--|---|----------|
| (37) a. | <i>risov-</i> | a- | <i>l-</i> | a | | b. | <i>risov-</i> | a- | n- | ij- | e |
| | draw | TH | PAST | FSG | | | draw | TH | PPP | NMZ | NOM |
| | <i>[she] drew</i> | | | | | | <i>drawing</i> | | | | |
-
- | | | | | | | | | | |
|---------|-------------------------|-----------|-----------|-----------|-----------|----|----------------------------|--|----------|
| (38) a. | <i>risov-</i> | a- | <i>l-</i> | a- | sʹ | b. | <i>risov-</i> | k- | a |
| | draw | TH | PAST | FSG | REFL | | draw | NMZ | NOM |
| | <i>[she] showed off</i> | | | | | | <i>showing off, posing</i> | | |

The choice between the two patterns of derivation is stem-based, sometimes both are possible (e.g., *štrixovanie* vs. *štrixovka* ‘shading, hatching’, the former has the process reading only, but this might be accidental)

The pattern in (37b) is more productive and more regular (less likely to give rise to idiomatic interpretations), very similar to *-ing* in English

All other suffixes are more like *-al* in *arrival*, *-age* in *stowage*, etc.: they sort of block the more productive one and are more idiosyncratic

Schoorlemmer 1995 examines all deverbal *ing*-nominalizations in Russian as a single category and does not note any distinctions between them

The same is true for English *ing*-nominalizations (Grimshaw 1990)

6.1 Theme-retaining event/result nominalizations (*nomina actionis*)

Pazelskaya and Tatevosov 2006, Tatevosov 2011, 2013, 2015, Pazelskaya 2009b, a, 2012, Valdivia, Castellví and Taulé 2013, Pereltsvaig 2018, etc.): focus on aspectual characteristics

- (39) a. **pre- obraz- ov-** **a-** n- **a** PPP
 trans-form VRB TH PPP FSG
transformed
- b. **pre- obraz- ov-** **a-** n- ij- **e** -ing
 trans-form VRB TH PPP NMZ NOM
transformation, transform

Babby 1993, 1997, Sadler, Spencer and Zaretskaya 1997, Rappaport 2001, Pazelskaya and Tatevosov 2008: derivation by the combination of the PPP-suffix (which has three surface

realizations, [n], [en] and [t]) and the abstract nominalizing suffix *-ij-* (with an allomorph *-j-*, cf. *zdorovje/zdravie* ‘health’):

The underlying form of the surface [n]/[en] and even the distribution of the two allomorphs are subject to debate (see Feldstein 1986, Garde 1998:329-332)

- (40) a. ot- kri- t- a PPP
 from cover PPP FSG
[is] opened, discovered
- c. ot- kri- t- ij- e -ing
 from cover PPP NMZ NOM
discovery

This **allomorphy** is phonologically determined but not derived by regular phonological rules (Halle 1973, Feldstein 1986, Garde 1998:329-332, Sadler et al. 1997)

The lack of a theme suffix in (40) is due to the fact that the verb is athematic: the *-t-* allomorph is only found with athematic verbs and after the suffix *-nu-*

Babby 1993: for both PPPs and event/result nominals “the initial verb’s external theta-role is dethematized, and the initial verb stem is converted into a [+N] (nominal) stem”

Pazelskaya and Tatevosov 2008: a two-step derivation:

- (41) stem $\left\{ \begin{array}{l} + \emptyset \rightarrow \text{verb} \\ + \text{PPP} \rightarrow \text{nominal} \end{array} \right. \left\{ \begin{array}{l} + \emptyset \rightarrow \text{participle} \\ + \text{ij} \rightarrow \text{nominal} \end{array} \right.$

The distribution of Grimshaw’s (1990) three readings (complex event, simple event, result) depends on the stem (Schoorlemmer 1995, Sadler et al. 1997, Pazelskaya 2003, 2009b, a, etc.): Notice the transitive softening in (42b, d), showing the presence of the verbal theme *-i-*

- (42) a. pis- a- n- ij- e RES/CEN
 write TH PPP NMZ NOM
writing
- b. kipjač- en- ij- e SE/CEN
 boil.TH PPP NMZ NOM
boiling
- c. star- a- n- ij- e SE
 try TH PPP NMZ NOM
endeavour
- d. ot.noš- en- ij- e RES
 PREFIX.carry.TH PPP NMZ NOM
relation

Resulting interpretations are semantically transparent, some of the few exceptions are:

- (43) a. *imение* ‘manor’ ← *imeti* ‘to possess’
 b. *priležanie* ‘assiduity, diligence’ ← *priležati* ‘to adjoin, to lie adjacent to’

Internal structure: both Aktionsart prefixes and the secondary imperfective suffix are allowed:

- (44) a. ot- kri- v- a- n- ij- e
 PREFIX cover IMPV TH PPP NMZ NOM
opening

- b. ras- pečat- iv- a- n- ij- e
PREFIX print IMPV TH PPP NMZ NOM
printing out

The use of the secondary imperfective suffix is not necessary for the process interpretation (see Pazelskaya 2003 for discussion and references)

PPP-ij- summary: what is relevant for us in thematic *nomina actionis*:

- a given PPP-*ij* nominal can have a complex event, simple event or result reading, or some combination of the three
- they **can have idiosyncratic interpretations** (as far as I can see, these are always non-eventive)
- secondary imperfectives form only PPP-*ij* nominals and these have only complex event readings (Schoorlemmer 1995 lists some exceptions like *vsxlipivanie* ‘sob’)
- the presence of inner aspect prefixes does not require the secondary imperfective suffix for imperfective interpretation and its presence seems to distinguish lexical nuances (e.g., the idiomatic *raspisanie* ‘schedule’ vs. the predictable *raspisivanie* ‘assigning, painting’ from *raspisatʹ/raspisivatʹ* ‘to assign, paint’)
- the PPP-*ij* sequence is purely deverbal and obligatorily retains the theme

This theme-retaining nominalization is very regular and mostly predictable (as well as most recent chronologically)

6.2 Theme-lacking event/result nominalizations

Athematic *ing*-nominalizations can be formed with a variety of suffixes (see Pazelskaya 2009b for a partial list), though none seem to be as productive as the PP-*ij* combination

They are clearly not purely deverbal. For instance, the abstract suffix *-stv-* derives states (45a), abstract properties (45b), group nouns (45c) and also activities (46):

- (45) a. *vdovstvo* ‘widowhood’ ← *vdova* ‘widow’
b. *udobstvo* ‘comfort’ ← *udobnij* ‘comfortable’
c. *kupečestvo* ‘merchant class, the state of being a merchant’ ← *kupec* ‘merchant’
d. *proizvodstvo* ‘production’ ← *proizvoditi* ‘to produce’

- (46) pro.iz.vod- stv- o ← pro.iz.vod- i- tj RES/EN/CEN
produce NMZ NOM produce TH INF
writing to produce

The suffix *-k-* is a diminutive (47a), a feminizer (47b), a deadjectival nominalizer (47c) and a generic nominalizer in principle (47d, e), permitting deverbal nominalization (47f):

- (47) a. *miška* ‘small mouse’ ← *mišj* ‘mouse’
b. *avtorka* ‘a female author’ ← *avtor* ‘author’
c. *zelionka* ‘brilliant green’ ← *zelionij* ‘green’
d. *kastorka* ‘Castor oil’ ← *kastorovoe maslo* ‘Castor oil’, from a cranberry root
e. *palka* ‘a stick’, from a cranberry root
f. *peredelka* ‘redoing, alteration, also: jolly mess’ ← *peredelatʹ* ‘to redo’
cf. *peredelivanie* ‘redoing’ ← *peredelivatʹ* ‘to redo (impf.)’

Derivation by truncation (null derivation, **conversion**) is also possible:

- (48) a. *vibros* ‘ejection’ ← *vi.bros-i-tʃ* ‘to toss out, eject’
 b. *spusk* ‘descent’ ← *s.pusk-a-tʃ-sʲa* ‘to descend’

Pazelskaya 2009b, a notes that it is not always obvious what the direction of the derivation is, but the presence of purely verbal prefixes (48a) is a clear sign of null derivation. Most Russian prefixes also function as prepositions, but *vi-* ‘out of’ is an exception.

Schoorlemmer 1998: non-PPP-*ij* nominals show both event and result interpretations (similar results in, e.g., Alexiadou and Grimshaw 2008, for English *-ing* vs. *-ment*):

The lack of transitive softening in (49b) (would have been *gotovlika*) or in (52c) below shows the lack of the theme

- (49) a. *zavar-* k- a ← *za.var-* i- tʃ RES/CEN
 prepare NMZ NOM PRFX.cook TH INF
brewing, brew; wielding *to brew; to wield*
- b. *gotov-* k- a ← *gotov-* i- tʃ EN/CEN
 prepare NMZ NOM prepare TH INF
food preparation *to prepare*
- c. *nastoj-* k- a ← *na.stoj-* a- tʃ RES
 brew NMZ NOM PRFX.stand TH INF
a kind of liqueur *to brew (make liquor from)*

Pazelskaya 2009b, a: event/result nominals derived by *-k-* and by *-0-* have the same range of interpretations as those derived by the PPP-*ij* sequence

Corpus studies analyzing the distribution of deverbal nominals in with *-nij-*, *-k-* and *-0-* by tracking and analyzing the occurrences in the corpus of 10 frequent nouns of each type in a situation reading:

- (i) the base can be telic or atelic for all three types
- (ii) *-0-* *nomina actionis* are mildly preferentially intransitive, while *-k-* and *-nij-* ones are preferentially transitive
- (iii) for most properties examined (including durative adverbials and adjectives, overt internal argument, the presence of a possessor, ability to control, etc.): no obvious difference between *-k-* and *-nij-* nominals

Such nouns can contain verbal prefixes (47f), but **not secondary imperfective suffixes**

What is relevant for us in athematic *nomina actionis*:

- a given non-thematic deverbal nominal can have a complex event, simple event or result reading, or some combination of the three
- they **can have idiosyncratic interpretations** (as far as I can see, these are always non-eventive)
- they cannot contain secondary imperfective suffixes, but can contain inner (lexical) aspect prefixes
- the presence of inner aspect prefixes permits imperfective interpretation
- none of these suffixes seem purely deverbal or can retain the theme

6.3 Comparison

When two types of nominals are derived from the same stem, non-PPP-*ij* nominals may fail to show an eventive interpretation, but PPP-*ij* nominals must have it:

- (50) a. stoj- a- t̥
stand TH INF
to stand
- b. stoj- a- n- ij- e process nominal
stand TH PPP NMZ NOM
standing
- c. stoj- k- a result nominal
stand NMZ NOM
stance

But often both nominals are eventive:

- (51) a. šifr- ov- a- l- a verb
cipher/code VBZ TH PAST FSG
[she] ciphered/coded
- b. šifr- ov- a- n- ij- e process nominal
cipher/code VBZ TH PPP NMZ NOM
ciphering/coding
- c. šifr- ov- k- a process/result nominal
cipher/code VBZ NMZ NOM
ciphering/coding; ciphered message
- (52) a. ras- pečat- (iv-) a- l- a verb
PREFIX print IMPV TH PAST FSG
[she] printed out (perfective/imperfective)
- b. ras- pečat- iv- a- n- ij- e process nominal
PREFIX print IMPV TH PPP NMZ NOM
printing out
- c. ras- pečat- k- a process/result nominal
PREFIX print NMZ NOM
printing out, printout

From the point of view of argument structure and inner aspect thematic and athematic deverbal nouns do not differ (Schoorlemmer 1998, Pazelskaya 2009b, a)

The main (only) difference is that **only thematic nominalization can contain the secondary imperfective suffix**

While it is also purely deverbal, the question remains open if athematic suffixes are necessarily category-neutral. One possible counterexample is the non-productive suffix *-īb-* (e.g., *kos/ba* ‘mowing’), Luka Szucsich, p.c.

Summarizing, the presence or absence of the theme vowel does not seem to affect the resultant interpretation of event nominals

Similar observation in Oltra-Massuet 2021 for the *ción*-nominalization with thematic vs. athematic verb stems in Spanish (*construcción* vs. *edificación* ‘building’)

The fact that the PPP-*ij* sequence is complex correlates with what we have observed with the augment *-l-*

I'm not sure *-k-* nominalizations are not complex, as they might trigger ablaut (e.g., *nabojka* 'heel protector', from the root *-bĭj-*, cf. zero-derived *priboj* 'surf, breakers'), which the non-deverbal *-k-* never does

Descriptively, **deverbal nominalization containing a thematic suffix appears to require an intermediate step that is at least historically non-finite**

Apparent exception: the agentive suffix *-telj-* (the standard view is that it is a cognate of the Latin *-tōr-*, from PIE, see Naccarato 2019:62)

Appendix A: PRIOR TAKES ON THEMATIC SUFFIXES

The syntactic and semantic contribution of these suffixes is a matter of contention:

- Aronoff 1994 (for Latin): theme vowels are phonological markers of conjugation class membership
- Oltra Massuet 2000, Arregi 2000, Oltra-Massuet and Arregi 2005 (for Spanish and Catalan): theme vowels are adjuncts to functional projections, see Roca 2010 for a counter-proposal in a different framework

Nevertheless, **attempts are made to identify them with a specific syntactic role:**

This is all in the context of Marantz 1984: verbs are created by little *v*, introducing the external argument

- Fábregas 2018, 2021 (for Spanish): themes are light verbs; see Oltra-Massuet 2021 for counter-argumentation
- Grestenberger 2021 (for Greek): most themes are *v*, there is one theme (*-e/o-*) with no semantic contribution
- Arsenijević and Milosavljević 2021 (for Serbo-Croatian): themes are *v*; *-a-* carries the feature [v], *-i-* has [v] and [scale]
- Kovačević, Milosavljević and Simonović 2021 (for Serbo-Croatian): flavors of *v*: *-i-* derives causative transitives; unaccusatives and anticausatives, *-ova-* derives unergatives (and a limited set of typically lexicalized transitives)
- Kwapiszewski 2021 (Polish): themes are Voice (like agentive suffixes); this means that Asp needs to be merged lower than Voice
- Bešlin 2023a, b, [to appear] (for Serbo-Croatian): themes are *v*; their retention in passive participles argues for the verbal status of the latter, hence against the status of themes as Voice

Appendix B: PRIOR STUDIES OF AGENTIVE NOMINALIZATIONS

Rappaport Hovav and Levin 1992, Alexiadou and Schäfer 2010, McIntyre 2014, Roy and Soare 2014: eventive and non-eventive *er*-nouns:

Rappaport Hovav and Levin 1992:

- eventive: episodic (imply an event) and projecting full argument structure (AS)
- non-eventive: professions and instruments (dispositional) and non-AS

Alexiadou and Schäfer 2010: both can contain overt *v* (*-ize-*, etc.), so both are eventive

- (i) eventive: contain *v*, episodic Asp, can project full argument structure
- (ii) dispositional (professions; instruments): contain *v*, dispositional Asp (incompatible with a complement on semantic grounds, see McIntyre 2014 for an objection)
- (iii) non-verbal: root-based, no *v* (*diner*, *best-seller*, etc., see Ryder 1999)

Roy and Soare 2014 (on French): verbal only, all contain *v* and Asp; use adjectival modification for diagnostics (frequency vs. amount)

- (i) eventive episodic: can have specific and definite complements
- (ii) eventive dispositional: generic, can only have non-referential complements (incl. professions)
- (iii) non-eventive (instruments): incompatible with a complement

McIntyre 2014: eventive (observes that a complement is not necessary for an event entailment) vs. non-eventive (functional and dispositional). Argues that sometimes *er* combines with a head (V) rather than a VP

Marvin 2016: Slovenian suffix *-lec-* (verbal only):

- professions and instruments allow genitive complements
- specific complement: agentive or profession, *instrument; instruments only allow non-specific complements
- modification with eventive adjectives is impossible with professions or instruments (so grouping as in McIntyre 2014, pace Roy and Soare 2014)

Proposes to derive the distinctions from the complement

Ryder 1999: besides Agents and Instruments, deverbal *er*-derivation may denote Patients (e.g., *scratcher* ‘a lottery ticket that is scratched’, Locations (e.g., *diner*) and others (e.g., *fundraiser*, *loafers*). **The *er*-suffix can also be non-deverbal** (e.g., *porker*, *left-hander*, *foreigner*, etc.)

Because Russian has many agentive suffixes, many of the hypotheses above can be tested (I won’t try it now)

Appendix C: SOME OTHER NOMINALIZERS CREATING AGENTIVE NOUNS

A.1 Nominalizing suffix *-ič-* (surface *-ec-/c-*)

Old Slavic suffix, for V-bases productive mostly in compounds

Very similar to the English *-er*: category-neutral, can form non-EA deverbal nominals:

- (53) a. *černec* ‘monk’ ← *čjornij* ‘black’ category-neutral
b. *borec* ‘fighter’ ← *borot’sja* ‘to fight’
c. *londonec* ‘Londoner’ ← *London* ‘London’
- (54) a. *prodavec* ‘salesman’ ← *pro.da-v-a-tj* ‘to sell’ agent
b. *rezec* ‘cutter, cutting tool’ ← *rez-a-tj* ‘to cut’ instrument
c. *rubec* ‘scar’ ← *rub-i-tj* ‘to chop’ theme
d. *postavec* ‘cabinet, tall boy’ ← *po.stav-i-tj* ‘to place’ location

For both (54c, d) the lack of transitive softening indicates the lack of a theme (*-i-*)

Both eventive and non-eventive interpretations are possible and quirky case can be retained (but both are rare):

- (55) a. **upravlenc* *fabriki/fabrikoj* ← *upravlj-a-tj* ‘to manage’_{INS} default
manager factory.GEN/INS
- b. *torgovec* *redkimi knigami* ← *torgov-a-tj* ‘to trade’_{INS} quirky case
merchant rare.INS books.INS
a trader in rare books
- c. *providec* *našej dejstvitel’nosti* ← *provid-e-tj* ‘to foresee’_{ACC} eventive
foreseer our.GEN reality.GEN
a foreseer of our reality

This is a non-productive suffix for agentive formation

A.2 Nominalizer *-nik-* (underlying *-ĭnik-*)

Highly productive, but not in deverbal derivation

Historically and maybe still, a combination of two suffixes, the adjectivizing *-ĭn-* and the nominalizing *-ik-*

- (56) a. *rĕznik* ‘(ritual) butcher’ (cf. *rezčĭk* ‘carver’, *rezatelĭ*, *rezal’ščĭk* ‘cutter’)
b. *provodnĭk* ‘conductor’

When deverbal, no trace of the thematic suffix can be detected

Inconclusive, because the suffix is probably yer-initial, and Russian has a vowel-before-vowel deletion rule

Appendix D: TRANSITIVE SOFTENING AS A DIAGNOSTIC FOR THE PRESENCE OF A THEME

Russian hates hiatus. Vowel sequences are resolved either by the deletion of the first vowel or (if the first vowel is a front one and the second one isn’t) by the creation of a glide (Jakobson 1948, Halle 1963, Lightner 1972, etc.)

The *CjV* sequence in Russian gives rise to a consonant mutation known as *transitive softening* (переходное смягчение; Halle 1963, Lightner 1972, Coats and Lightner 1975, Bethin 1992, etc.):

- (57) a. *lĭub- i- tĭ*
love TH INF
to love
- b. *lĭub- i- Ø t* ⇒ *lĭubit* V-before-V deletion
love TH PRES 3SG
loves
- c. *lĭub- i- Ø u* ⇒ *lĭubju* ⇒ *lĭublʲu* V-before-V glide formation
love TH PRES 1SG
I love

So, second conjugation verbs can be used to detect the presence of absence of a theme before vocalic suffix (first conjugation verbs cannot because their thematic suffixes would just delete before another vowel)

With consonantal suffixes there is obviously no issue (but it is not always obvious whether a suffix is consonantal)

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