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THREE PUZZLES IN RUSSIAN FEMININE FORMATION

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1. INTRO: TWO WORDS ABOUT RUSSIAN PHONOLOGY

The two words are: "velars" and "yers"

> 11. Thou shalt not do Slavic morphology in the ignorance of Slavic phonology

Slavic **yers are abstract high lax vowels** that are dropped when not changed into something else

The underlying yers **[ĭ] and [ŭ]** surface as [e] and [o] if there is a yer in the next syllable, and can surface as [i] and [ɨ] (morphologically triggered)

Velar allophony:

- an underlying [k] can also surface as [c] or [č]
  an underlying [g] can also surface as [ž]
  an underlying [x] can also surface as [š]

We will mostly be concerned here with the underlying [k]:

(1) *zájac/zájca* 'hare.NOM/GEN' → *zájka* 'hare' → *zájčik* 'hare.DIM'

- a surface **[č]/[ž]/[š]** at the morpheme boundary entails that the vowel following it is underlyingly either [– back] ([i] or [e]) or a yer ([ĭ], [ŭ])

Highly relevant illustration: the suffix *-ŭk-*:

(2) a. *górod* 'city': *gorod-ók* 'city-DIM.NOM' → *gorod-k-á* 'city-DIM-GEN'
b. *drug* 'friend': *druž-ók* 'friend-DIM.NOM' → *druž-k-á* 'friend-DIM-GEN'

The vowel-zero alternation shows that the suffix begins with a yer. The lack of palatalization in (2a) shows that this is a back yer ([ŭ])

The **stress pattern** shows that it is a post-accenting suffix ("stress" is the third word)

In unstressed syllables after a palatalized consonant [o] and [e] are both neutralized to [e]:

(3) a. *górod* 'city': *gorod-ók* 'city-DIM.NOM' → *gorod-k-á* 'city-DIM-GEN' unaccented
b. *goróx* 'peas': *goróš-ek* 'peas-DIM.NOM' → *goróš-k-a* 'peas-DIM-GEN' accented

This means, among other things, that the surface [ok]/[k], [ec]/[c] and [ic] can in principle all be allomorphs of the same underlying representation

2. PUZZLE 1: HOW TO NOT FORM A FEMININE

The three Russian genders are all productive and fall in different declension classes (all exx. from Nikitina 2003):

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* Many thanks to Eddy Ruys for comments and insights and to Olga Steriopolo for encouragement.

The transcriptions below closely follow Russian orthography and do not indicate: (a) palatalization before front vowels (/*Ci*/ → [*Cʲi*], /*Ce*/ → [*Cʲe*]), (b) various vowel reduction phenomena in unstressed syllables, (c) voicing assimilation and final devoicing. Stress is marked by an acute accent on the vowel. The yers (abstract high lax unrounded vowels) are represented as /ĭ/ (front, IPA ɪ) and /ŭ/ (back, IPA ʊ). The letters ч (IPA [*t͡ɕ*], see Padgett and Żygis 2007), ш (IPA [ʂ]), ж (IPA [ʐ]), щ (IPA [ɕɕ], and ц (IPA [t͡s]) are traditionally rendered as č, š, ž, šč, and c.

The third (feminine consonant-final) declension class is non-productive (beyond repurposing existing words and derivation with the suffix -*ostʲ*-)

(4) a. *klóses* 'clothes', *kombéz* 'overalls', *kočúm* 'a pause' masculine
b. *kolʲbá* 'drug injection', *kónsa* 'music conservatory', *kóra* 'an anecdote' feminine
c. *buxló* 'alcohol' (colloq.), *babló* 'money' (colloq.), *kotjá* 'cat' (colloq.) neuter

Morphologically, for inanimates **the inflection class of the neologism defines its gender** (or vice versa):

- consonant-final (1st conjugation): masculine
- a-final (2nd conjugation): feminine
- o-final or indeclinable: neuter

With animates the situation is more complicated

The "common gender": the gender of a-nouns is determined by their denotation:

(5) a. *kolobáxa* 'able seaman' (navy slang)
b. *klʲúxa* 'a hippie sympathizer'

The ironic neuter (Zubova 2010): gender/declension class conversion:

(6) a. *krevedko* ← *krevétka* 'shrimp' (feminine)
b. *blondinko* ← *blondínka* 'blond' (feminine)
c. *stixo* ← *stix* 'poem'(masculine)
d. *denʲgo* ← *dénʲgi* 'money' (pl. tantum)

Zubova 2010: these neuters generally agree by their semantic or their morphological gender (but gender disagreement also happens):

(7) a. Moe blondink-o vernulosʲ iz Indii. Zubova 2010
my.N blond.N came.back.N from India
My blondie is back from India.

b. Lošadk-o sošla s uma.
little.horse-N stepped.off.F from mind
The horsey went bonkers.

c. letajuščij lʲagušk-o
flying.M frog-N
the flying frog

This might be (and most likely is) a language game, but it introduces the option of **changing gender by changing the declension class**

(8) a. *muchacho* 'boy'/*muchacha* 'girl' Spanish, Harris 1991
b. *sirviente*/*sirvienta* 'servant.M/F'

Why is this option not used in feminine formation in Russian?

(9) a. *vóron*/*voróna* 'raven/crow', *lis*/*lisá* 'he-fox/fox', *žiráf*/*žiráfa* 'giraffe/giraffe'
b. *kum*/*kumá* 'godparent (not in relation to the child)', *suprúg*/*suprúga* 'spouse', *rab*/*rabá* 'slave'
c. *rebʲónok* 'child' → *rebʲónka* 'female child'

Setting aside first names (*Evgénij*/*Evgénija*, *Valérij*/*Valérija*, *Aleksándr*/*Aleksándra*…), such cases are very rare

Normally, a feminizing suffix is needed (and its choice is not straightforward, see Vinogradov 1986:117-119, Beard 1987, Fufaeva 2020, among many others):

(10) a. *sekretárša* 'secretary', *generálʲša* 'general's wife', *blógerša* 'blogger'
b. *laborántka* 'lab assistant', *zemlʲáčka* 'compatriot'
c. *baronéssa* 'baroness', *kritikéssa* 'critic'
d. *masteríca* 'master', *tigríca* 'tigress'
e. *knʲaginʲa* 'princess', *filologínʲa* 'phololologist'
f. *trusíxa* 'coward', *borčíxa* 'wrestler', *zajčíxa* 'hare'
g. *direktrísa* 'director', *abbatísa* 'abbess'
h. *svátʲja* 'mother of the child-in-law', *boltúnʲja* 'chatterbox'

Such has not always been the case ([O] indicates obsolete forms):

(11) a. [O]*sudomój/sudomója* 'dish washer.M/F', [O]*vorožéj/vorožejá* 'magician.M/F'
b. [O]*guvernánt/*[O]*guvernánta* (modern *guvernʲór/guvernántka*) 'tutor/governess'

None of these words are currently paired

The closest we get are agentive suffixes with male and female variants:

(12) a. *piárščik/piárščica* 'PR administrator.M/F'
b. *animéšnik/animéšnica* 'animé lover.M/F'

What about **deadjectival nouns denoting humans**?

Some have fixed gender (with some fluctuations):
Vysotskaja 2017: animate exclusively feminine deadjectival nouns are extremely rare. In fact, I have found only one, which is cited by everyone. Inanimate feminine deadjectivals are quire frequent

(13) a. *portnój* 'tailor', *požárnɨj* 'fireman', *graždánskij* 'a civilian'
b. *górničnaja* 'a service maid'

Otherwise an open class:

(14) a. *zavédujuščij/zavédujuščaja* 'manager'
b. *rússkij/rússkaja* 'a Russian'

Obviously, inanimate nouns, like *zapʲatája* 'a comma', do not change gender

Why can't morphological nouns become feminine by changing the declension class?

Setting aside: "common gender nouns", which may agree semantically (Corbett 1979, etc.)

3. PUZZLE 2: FEMININE STRESS RETRACTION

Halle 1973: in gendered pairs formed with the suffixes *-nik-* and *-ŭk-* the feminine undergoes **stress shift** (for *-ŭk-* also independently noted by Beard 1987):
No explanation, just the hypothesis that these feminine nouns undergo metatony (stress retraction)

(15) masculine nouns with *-ŭk-* (unaccented stems only): Halle 1973

a. *pastuškí* 'shepherds', *korobkí* 'small bast boxes' (from *korobók*), *poroškí* 'powders', *gorodkí* 'small towns', *voloskí* 'hairs', *čulkí* 'stockings'

b. *pastúški* 'shepherdesses', *kazáčki* 'Cossack women', *koróbki* 'boxes', *golóvki* 'heads', *skovoródki* 'pans'

(16) masculine nouns with *-nik-* (unaccented stems only): Halle 1973

a. *provodnikí* 'conductors', *balovnikí* 'spoiled children', *bludnikí* 'fornicators', *učenikí* 'students', *vɨpuskníkí* 'graduates'

b. *provodníci* 'conductors', *balovníci* 'spoiled girls', *bludníci* 'fornicators', *učeníci* 'students', *vɨpuskníci* 'graduates'

In the corresponding feminine nouns stress is retracted one syllable to the left

Caveat: **the accentual properties of a suffix can only be checked with unaccented stems**

> The fact that two different suffixes exhibit this change is grounds for investigation

3.1. Further gendered suffixal pairs

In the **suffixal pair *-ič-/-ic-*** as well the masculine variant is post-accenting and the feminine one, accented:
The yer of the masculine suffix is vocalized in (17a) to break the impossible consonant cluster

(17) a. *černéc-ь* 'monks'/*černíc-i* 'nuns'
b. *vdovc-ý* 'widowers'/*vdovíc-i* 'widows'

In this suffixal pair the consonant remains the same and the vowel changes

The **suffixal pair *-ščik-/-ščic-*** triggers the same stress alternation (in derivatives where stress is not on the lexical stem, the latter is by far the preferred variant):
This suffix also has an allomorph *-čik-*, which is used after dental-final stems and is never post-accenting, so the stress in its feminine variant *-čic-* cannot be checked

(18) a. *kranovščik-í/kranovščíc-i* 'construction crane operators.M/F'
b. *časovščik-í/časovščíc-i* 'watchmakers.M/F'

Both *-ščik-* (Witkowski 1981) and *-nik-* historically arise from suffix stacking, with the same shared component *-ik-*
Both *-ščik-* and *-nik-* derive profession names. Although they have complementary distribution (one exception: *sovétnik* 'councilor', *sovétčik* 'advisor'), they are not each other's allomorphs: *-nik-* can also derive instruments (and *-nic-*, places), while *-ščik-* cannot.

Two reasons not to assume this as a synchronic state of affairs:
- the diminutive suffix *-ik-* is not paired (it can only be feminized by addition)
- the independent feminizing suffix *-ic-* exhibits different accentual behavior from both *-nic-* and *-ščic-*

Besides, the suffixal pair *-ič-/-ic-* exhibits the same accentual behavior

3.2. Can *-nik-/-nic-* and *-ščik-/-ščic-* be decomposed?

To make things even more interesting, Russian has an adjectivizing suffix *-n-*, an independent masculine suffix *-ik-* (which also can be both diminutive or nominalizing) and an independent feminizing suffix *-ic-*
For the sake of simplicity I abstract away from the yers in *-ĭnik-/-ĭnic-* and *-ĭščik-/-ĭščic-*: they are never vocalized, but the consonant preceding them is palatalized

> The feminizing suffix *-ic-* is *not* the feminine counterpart of the masculine *-ik-*

The nominalizing masculine suffix *-ik-* can only be feminized by addition:
The only counterexample I have found in Zaliznjak 1980 is *kárlik/kárlica* 'dwarf.M/F' (historically derived from *kárla* 'dwarf')

(19) a. *bolʲševík/bolʲševíčka* 'bolshevik', *alkogólik/alkogolíčka* 'alcoholic'
b. *mélʲnik/mélʲničixa* 'miller', *dvórnik/dvórničixa* 'yard caretaker'

The diminutive *-ik-* cannot be feminized at all

Magomedova 2017: the masculine diminutive suffix *-ik-* is not an allomorph of the diminutive suffix *-ŭk-* (contra Gouskova, Newlin-Łukowicz and Kasyanenko 2015): they may combine with the same stem and they have different meanings

The feminizing suffix *-ic-* either forms a gendered pair with the suffix *-ič-* (17), or attaches to stems:
In a few cases (*pjánica* 'drunkard', *tupíca* 'dullard', *vólʲnica* 'self-willed person', *voznícа* 'driver') *-ic-* acts as a nominalizer for common gender nouns

(20) a. *tigr/tigrícа* 'tiger'
b. *máster/masterícа* 'master'

Furthermore, when independent, *-ic-* is accented and **dominant**:
Exception: *medvédʲ/medvédica* 'bear'

(21) a. *félʲdšer* 'doctor's assistant', PL: *félʲdšerɨ*, F: *felʲdšerícа*
b. *djávol* 'devil', PL: *djávolɨ*, F: *djavolícа*
c. *tígr* 'tiger', PL: *tígrɨ*, F: *tigrícа*

While the shifted stress in the feminine forms in (16) and (18) shows that ***-nic-* and *-ščic-*** are accented, (22) and (23) show that they are **not dominant**: stem stress is not erased:

(22) a. *frezeróvščik/frezeróvščica* 'milling-machine operator'
b. *zaprávščik/zaprávščica* 'refueller'

(23) a. *otlíčniki/otlíčnicɨ* 'best students'
b. *západniki/západnicɨ* 'Westernizers'

Conclusion: the independent suffix ***-ic-* is not a seamless component part of *-nic-* and *-ščic-***
But it could be if some explanation is found for why it behaves so differently

Four different gendered suffixal pairs involve stress retraction in the feminine

While the masculine ***-ič-* and *-ŭk-*** are both nominalizing and diminutive, ***-nic-* and *-ščic-*** are exclusively nominalizing (agentive)

4. PUZZLE 3: SUBSTITUTION AND COMBINATION

The issue of suffixal replacement has also been observed for Dutch feminizing suffixes (Van Marle 1985, Booij 2010, Don and Lin 2014, Don 2015)

The feminizer *-ŭk-* can be added to a masculine human-denoting noun (derived or underived) or replace a masculine nominalizer:

(24) a. *šved/švédka* 'a Swede', *monáx/monáška* 'a monk/nun' addition
b. *pessimíst/pessimístka* 'pessimist', *arfíst/arfístka* 'a harper' addition
c. *torgóvec/torgóvka* 'a merchant', *némec/némka* 'a German' substitution

The same for the feminizer *-ic-*:

(25) a. *tigr/tigrícа* 'tiger', *máster/masterícа* 'master' addition
b. *pevéc/pevícа* 'a singer', *krasávec/krasávicа* 'a beauty' substitution

And for the feminizer *-nic-*:
There is no special reason for choosing *-nic-* for the agentive suffix *-telʲ-*, in Ukrainian *-ŭk-* is used (although the suffix is non-productive)

(26) a. *učítelʲ/učítelʲnicа* 'a teacher', *vodítelʲ/vodítelʲnicа* 'a driver', *voítelʲ/voítelʲnicа* 'a warrior', *rodítelʲ/rodítelʲnicа* 'a parent'
b. *učeník/učeníca* 'a student', *vɨpuskník/vɨpuskníca* 'a graduate'

The feminizer -*ščic*- (-*čic*-) is obligatorily replacing:
(27b) is the only case known to me where a suffix other than -*ščik*- is being replaced; in the compounding derivate *xristoprodávec/xristoprodávica* 'traitor, *lit*. Christ's seller' the feminine is formed regularly

(27) a. *časovščík/časovščíca* 'watchmaker.M/F', *dokládčik/dokládčica* 'presenter'
b. *prodavéc/prodavščíca* 'vendor'

If a feminizing suffix adds the presupposition that the referent is female, **does this mean that replacing cases involve parallel derivation from the same source**?

How to derive then the obvious near-identity of the suffixes in gendered pairs?

To make things more complicated, **the same agentive suffix may be replaced in some cases and remain in others**, e.g., for -*ič*-:
Vinogradov 1986:117fn.: If the noun in -*ič*- is deverbal or deadjectival, its feminine form will be built with the suffix -*ic*- (28a), if it is denominal, the suffix -*ǔk*- is used (28b)

(28) a. *pevéc/pevíca* 'singer', *krasávec/krasávica* 'a beauty' substitution
b. *torgóvec/torgóvka* 'merchant', *némec/némka* 'a German' substitution
c. *kupéc/kupčíxa* 'merchant', *boréc/borčíxa* 'wrestler' addition

Two major issues here: **the semantics of the feminizing suffixes** and **the mechanics of suffix replacement** (including the choice of the feminizing allomorph)

5. ONE SOLUTION

Hypothesis: the suffixes -*ič*- (masculine surface [ec]/[c]), -*ic*- (feminine [ic]) and -*ǔk*- (feminine and masculine [k]/[ok]) share the same underlying representation (-*ǐk*-)

The suffixal pairs -*nik*-/-*nic*- and -*ščik*-/-*ščic*- (-*čik*-/-*čic*-) are derived by the same mechanisms and hopefully from the same source

5.1. Three Russian nominalizing/diminutive suffixes

Three historically related Russian suffixes can be used for forming nouns and diminutives:

(29) a. *xlebók/xlebká* 'a gulp.NOM/GEN' ← *xlebátʲ* 'to sup, gulp' -*ǔk*-
b. *xlébik/xlébika* 'bread.DIM.NOM/GEN' ← *xleb* 'bread' -*ik*-
c. *xlébec/xlébca* 'a small loaf of bread.NOM/GEN' ← *xleb* 'bread' -*ič*-

They are linked to the two that can be used for forming feminine nouns and feminitives:

(30) a. *golúbka* 'female pigeon' -*ǔk*-
b. *golubíca* 'female pigeon.DIM' -*ic*-

Our goals now:
- the link between -*ǔk*-, -*ik*- and -*ič*- in (29)
- the link between the suffix -*ič*- (29b) and its two feminitives (30)

Table 1: Nominalizing/feminine connections

vowel / consonant	[+back]	[–back]	
	[–ATR]		[+ATR]
velar	-*ǔk*- F/D	-*ǐk*-	-*ik*- M/D
coronal		-*ič*- M	-*ic*- F

The form -*ĭk*- is not attested

We know that the basic diminutive/feminine suffix contains the back yer [ŭ] because:

- it alternates with a zero, so it must be a yer
- it does not trigger palatalization of the stem-final consonant (and so does not begin with a front vowel)
- it triggers velar mutation ([g]/[k]/[x] → [ž]/[č]/[š]), which an underlying [o] would not do

We assume that it contains the velar [k] rather than the palatal [c] because the [k]-to-[c] change is (a) more natural than in the opposite direction, (b) motivated by the preceding front vowel in the two relevant allomorphs (though not in all of them)

Table 1 suggests that **the base form is the one that is not attested (-*ĭk*-)**

5.2. Deriving the suffix -*ŭk*-

The suffix -*ŭk*- can also be purely nominalizing (examples from Lavitskaya 2015:74-75):

(31) a. *zakolót*^{j} 'stab, pin up.INF' → *zakólka/zakólok* 'hairpin.SG.NOM/PL.GEN'
b. *nabrosát*^{j} 'sketch.INF' → *nabrósok/nabróska* 'sketch.NOM/GEN'

Non-productive in the masculine (Vinogradov 1986:96-98), very productive in the feminine

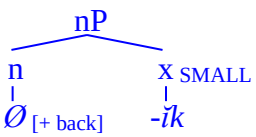
Suppose we have a suffix with the underlying representation -*ĭk*- that creates non-verbals with the general semantics of a small size (shared by diminutives, females and nominal derivates from properties and events)
Why non-verbals? Because -*ĭk*- is found in diminutive adjectives, too (e.g., *krasívenĭkij* 'pretty.DIM')

Suppose it is post-accenting
Revithiadou 1999 associates post-accentuation with a floating accent. Melvold 1990 assumes that post-accenting morphemes introduce a following left bracket, Alderete 1999, that they are unaccented… it doesn't matter now

Suppose that its semantic type precludes its combination with a lexical stem (maybe it can only combine with properties)

To be usable, this suffix can combine with another affix, which is a nominalizer

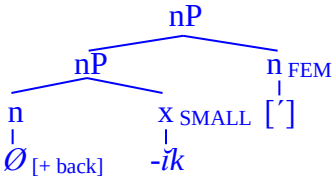
This affix is **non-segmental: it a floating [+ back],** forcing the suffix to turn into -*ŭk*-:
The non-productive adjectival suffix -*ok*- (e.g., *glubókij* 'deep') is likely related to this one (by lowering), but not identical to it

(32)


→ -*ŭk*-

The suffix -*ŭk*- is still post-accenting

Suppose **the femininizing suffix introduces an accent** that will fall on -*ŭk*-

(33)


We have our accented feminine suffix -*ŭk*- and because it contains a yer, stress is shifted to the left (Melvold 1990)

Issue: stress is shifted to the left even if the yer of the suffix is vocalized (in the genitive plural). No big deal, we have other yers that do the same thing (see Halle 1973 on *polotnó/polótna* 'fabrics.SG/PL'). We could have made *n* FEM render *-ŭk-* pre-accenting, but it is more complicated this way

Important: **the femininizing suffix *n* FEM does not combine with the lexical stem**

It's not a bug, it's a feature

5.3. Deriving *-ĭc-* and *-ic-*

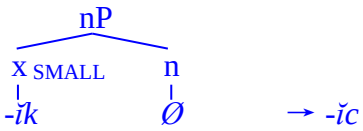
How can we derive *-ĭc-* from *-ĭk-*?

Historically Russian had a rule (which Ukrainian and Belarusian still do) that could **spread the [coronal] feature of the suffixal vowel ([ĭ]) onto the following velar, delinking the feature [dorsal]** (cf. Halle 2005, Rubach 2019… many people)

Synchronically this is an affix-specific effect and I suggest it is induced by **a null suffix** (in the same structure):

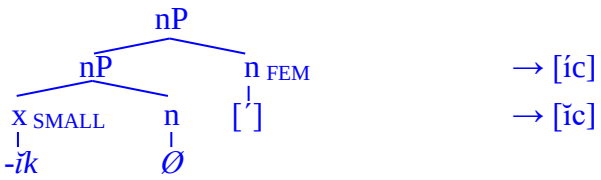
We have not discussed this, but *-ic-* can also be diminutive in the masculine (e.g., *brat* 'brother', *brátec* DIM), in the feminine (*sestrá* 'sister', *sestríca* DIM), and in the neuter (*dérevo* 'tree', *derevcó* DIM and *dérevce* DIM), the latter also possessing a lowered allomorph *-ĕc-* (e.g., in *palʲtó* 'coat', *palʲtecó* DIM). I set these aside for now

(34)



This complex suffix is still post-accenting and becomes accented when combined with the same feminizing suffix in exactly the same way:

(35)



How come *-ĭc-* undergoes tensing? Stipulation: it is the effect of stress

Table 2: Agentive/feminine connections: suffixes *-ŭk-* and *-ĭc-*/*-ic-*

vowel / consonant	[+back]	[–back]	
	[–ATR]		[+ATR]
velar	*-ŭk-* ←	*-ĭk-*	*-ik-*
coronal		*-ĭc-* →	*-ic-* F

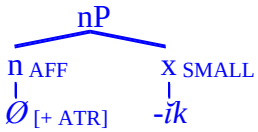
Assuming the underlying representation *-ĭk-* connects the nominalizer *-ĭc-* to both its feminine counterparts, as well as to the diminutive/nominalizer *-ŭk-*

Stipulation: the nominalizer deriving *-ŭk-* is on the left branch, the nominalizer deriving *-ĭc-*, on the right branch

5.4. The suffix *-ik-*

Magomedova 2017: unlike *-ŭk-*, *-ik-* also introduces an affectionate component

Suppose n AFF contributes the feature [+ ATR] on the phonological side and merges in the same structure as in (32):

(36) 

→ *-ik-*

Once this change has happened, it is impossible to get back to [ŭk]

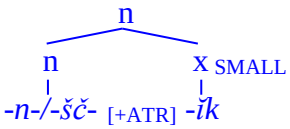
5.5. Discovering *-ik-* in *-nik-* and *-ščik-* (*-čik-*)

The suffix *-n-* (actually, *-ĭn-*) in *-nik-* is independently attested as an adjectivizing suffix:

(37) a. *učeník/učenícа* 'a student', *vɨpuskník/vɨpusknícа* 'a graduate'
b. *učjónɨj* 'educated', *vɨpusknój* 'graduation-related'

There is no independently attested suffix *-šč-*
Russian has other such suffixes, e.g., the borrowed verbalizers *-ir-* and *-iz-* must be followed by the suffix *-ow-*

I propose that **both *-n-* and *-šč-* are nominal and introduce the feature [+ ATR],** as in (36):

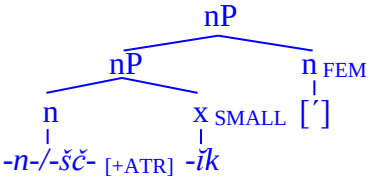
(38) 

→ [nik′]/[ščik′]

How do we get to the feminine form ([níc]/[ščíc])?

5.6. The syntax of n FEM

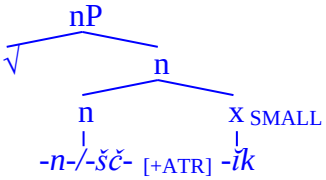
Stress comes from n FEM: as assumed in (33), it only has suprasegmental features ([′]):

(39) 

How do we get the k2c change? It should be prevented in the masculine, but go through in the feminine

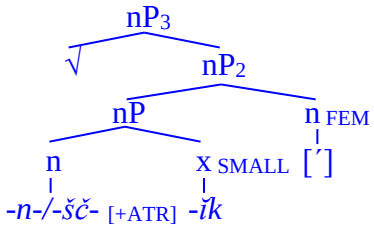
If we look at the history of Russian, the k2c change depended on the following vowel. Since the vowels in Russian case suffixes are mostly shared across declension classes, this would not work. But structure will

Proposal: **the k2c change can occur only when *-ĭk-* is merged with another suffix**. In (40) the suffixal complex merges with the lexical stem, which is not adjacent to *-ĭk-*, and *-ĭk-* remains unchanged:
The root symbol here also stands for a complex lexical stem, like in (22) and (23)

(40) 

→ √-nik′/ščik′

Suppose the tree in (39) combines with a lexical stem:

(41) 

→ √-níc/ščíc

In (41) it is followed by the suprasegmental suffix n FEM, and the merger triggers the k2c change
Furthermore, maybe we don't even have to require n FEM to introduce stress: maybe it's enough that accent has to be assigned within the nP_2 constituent. To be examined

Table 3: Agentive/feminine connections: suffix *-ǐc-*

vowel / consonant	[+back]	[–back]	
	[–ATR]		[+ATR]
velar	*-ŭk-*	*-ǐk-* →	→ *-ik-*
coronal		*-ǐc-*	*-ic-* F

For the tree in (39) to work, n FEM must have an appropriate semantic type

Proposal: **n FEM is never merged with the lexical stem**

6. SUMMARY AND FURTHER QUESTIONS

Two (and maybe all) of my three puzzles end up having the same answer

Puzzle 1: feminitives cannot be formed by a change in the declension class (except for a few nouns) unless the noun is deadjectival:

(42) a. *šved* 'a Swede.M.NOM'/*svédka* 'a Swede.F.NOM', *svéda* 'a Swede.M.GEN/*F.NOM'
b. *zavédujuščij*/*zavédujuščaja* 'manager', *rússkij*/*rússkaja* 'a Russian'

Answer: the semantic type of the Russian feminizing suffix precludes it from combining with lexical stems. **Both suffixes and adjectives are semantically modifiers**

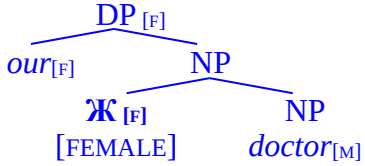
Puzzle 2: feminitives systematically undergo accent shifting

Answer: While I have simply suggested the common feminizing suffix with its own accent, it is also possible that the complex suffix maybe requires internal accent assignment, precluding post-accentuation

Puzzle 3: the existence of replacive suffixes

Answer: The suffixes are not replacive but merely complex

What does this all mean for syntactic theories of mixed agreement that introduce a gender-changing functional head?

(43) 

Pesetsky 2013

A small sociolinguistic note:

> Mozdzierz 1999:168: "femininizations with the productive suffixes *-ka* and *-nica* do not occur or are not used, such as **èkonomistka* 'economist', **inženerka* 'engineer', **specialistka* 'specialist', **predsedatel'nica* 'chairwoman'"

Most my Russian informants disagree

6.1. Problems

To be honest, I do not like the idea that the suffix *-ǐn-* in *-nik-* is nominal. Even though there is evidence for *-ǐk-* in adjectives, inside *-nik-* it seems that *-ik-* is the nominalizer

And then maybe very complex structures with three pieces like (39) are not needed

Also I don't know whether the whole story extends to **neuters** (which are different)

6.2. Open issues

The **semantic link between nominalization and diminutive/feminitive formation** is unclear

The **difference between the nominalizers *-ǔk-* and *-ǐc-*** remains a mystery. The former is far more productive, but it is not clear how to restrict either of them

The choice between *-ǔk-* and *-ic-* feminizers of the suffix *-ǐc-* does not follow from anything Vinogradov 1986:117fn.: If the noun in *-ǐc-* is deverbal or deadjectival, its feminine form will be built with the suffix *-ic-* (28a), if it is denominal, the suffix *-ǔk-* is used (28b)

Maybe *-ic-* should have the same structure as (34) rather than (35), and (34) should be formally masculine (but then what about the neuter?)

The **semantics of combining replacive feminitive suffixes with lexical roots and stems** has not been discussed:

(44) a. *učítelʲ/učítelʲnica* 'a teacher'
b. *máster/masteríca* 'master'

What is going on here might be linked to the fact that actor nouns often serve as morphological basis for semantically underlying adjectives:

(45) a. *pessimíst* 'a pessimist' → *pessimistskij* 'pessimist'
b. *vospitátelʲ* 'an educator' → *vospitátelʲnɨj* 'educational'

The fact that **the independent *-ic-* is dominant** requires further investigation

Combinatorial properties of various diminutives and feminitives differ: some can, whereas others cannot be combined with a diminutive suffix:

(46) a. *list* 'leaf' → *listók* 'leaf.DIM' → *listóček* 'leaf.DIM.DIM'
b. *plitá* 'slab' → *plítka* 'tile, slab.DIM' → *plítočka* 'tile, slab.DIM.DIM'

(47) a. *učeník* 'pupil' → *učeničók* 'pupil.DIM'
b. *učeníca* 'pupil.F' → **učeníčka*
c. *bolʲníca* 'hospital.F' → *bolʲníčka* 'hospital.DIM'

(48) a. *žiléc* 'lodger' → **žílʲčik*
b. *žilíca* 'lodger.F' → *žilíčka* 'lodger.F.DIM'

These are just some examples, I have run no proper tests on these

Additional phonological restrictions: the feminine can *-ǔk-* only combine with end-stressed nouns, why?

6.3. Puzzle 4: augmented replacement

The feminizer *-ǐk-* may require an augment (sometimes in combination with replacement):

(49) a. *cʲórt/certóvka* ‘devil’, *plut/plutóvka* ‘rogue’ *-ov-ŭk-*
b. *geógraf/geografíčka* ‘geography teacher’ *-ik-ŭk-*
c. *slugá/služánka* ‘servant’ *-ʲan-ŭk-*
d. *górec/gorjánka* ‘mountain-dweller’ *-ĭc-/-ʲan-ŭk-*

While some of these augments are derivational suffixes in their own right, they do not seem to contribute any meaning here:

(50) a. *pessimíst* ‘a pessimist’ → *pessimistíčeskij* ‘pessimist’ *-ik-*
b. *cʲórt* ‘a devil’ → *certóvskij* ‘devilish’, *plut* ‘a rogue’→ *plutovskój* ‘roguish’ *-ov-*
c. *jazykovéd* ‘a linguist’ → *jazykovédčeskij* ‘linguist’ *-ĭc-*
d. *vospalítʲsʲa* ‘to become inflamed’ → *vospalítelʲnij* ‘inflammatory’ *-telʲ-*

Only in (50d) can the intermediate suffix be semantically motivated

Table 4: Feminization combinatorics: the feminizer *-ǐk-*

	simple feminine	**augmented feminine**
bare stem	*soséd/sosédka* ‘a neighbor’	*grek/grečánka* ‘a Greek’
suffixed stem	*arfíst/arfístka* ‘a harper’ *plovéc/plovčíxa* ‘a swimmer’	*pólovec/polovčánka* ‘a Polovtsian’
truncated stem	*torgóvec/torgóvka* ‘a merchant’	*górec/gorjánka* ‘a mountain-dweller’

Non-existent: *wugéc/*wugéčka/*wugéčica/*wugéčnica*, etc. The masculine suffix *-ĭc-* can be combined only with *-ix-* (+ the one exception in the table), despite the fact that the sequence *-eč-k-* is morphonologically fine if it arises from the combination of a feminizer with a diminutive

So we have three options:
- obligatory stacking: *-ist-*, *-telʲ-*, *-ik-*, etc.
- obligatory truncating stacking: *-nik-* (*-nic-*) and *-ščik-*/*-čik-* (*-ščic-*/*-čic-*)
- replacement: *-ĭc-* (*-ic-*), *-ĭc-* (*-ŭk-*)

These lists are not complete

7. APPENDICES

7.1. Prior approaches to feminine stress retraction

Halle 1973: these feminine nouns undergo metatony (stress retraction)

Beard 1987: discusses the matter for the suffix *-ŭk-*, but does not analyze it, as far as I can see; it only interests him as an indicator of the polysemy of the suffix *-ŭk-*

Melvold 1990:157: the masculine diminutive suffix is post-accenting (assigns an accent to the next syllable)
Melvold assumes that it is underlyingly *-ǐk-* (and backed by a separate rule) and accentually dominant (which is wrong, see (3b), where the root is an accented one)

Melvold 1990:166: the feminine diminutive *-ǐk-* is accented, but since it contains a yer, which cannot be stressed, stress is retracted to the preceding syllable
Problem: even if the yer is vocalized (in genitive plural), it remains unstressed

Steriopolo 2008:115: there is a gender-changing feminine *-ŭk-*, which is homophonous to the diminutive one but has different syntax (it changes gender and declension class)

The homophony hypothesis is compatible with different accentual properties

Lavitskaya 2015:74: the accentual properties of suffixes depend on the lexical category of the stem and its internal structure

While this leads us to expect a potential difference between a feminizer and a diminutive, her examples are highly dubious (and the same roots are used in (15))

Summarizing, after Halle's initial observation **all work has been focused on *-ŭk-*** and mostly arguing for **homophony**

7.2. Dutch

The issue of suffixal replacement has also been observed for Dutch feminizing suffixes (Van Marle 1985, Booij 2010, Don and Lin 2014, Don 2015)

The feminizing suffix *-ster* can be replacing or additive (*-aar* is the allomorph of the agentive suffix *-er* used after stems ending in schwa followed by a coronal sonorant, Don 2015):

(51) a. *vrijwilliger/vrijwilligster* 'volunteer.M/F', *reiziger/reizigster* 'traveller.M/F'
b. *wandelaar/wandelaarster* 'walker.M/F', *rekenaar/rekenaarster* 'calculator.M/F'

The feminizing suffix *-es* is only additive in the same context:

(52) a. *minnaar/minnares* 'lover.M/F', *dienaar/dienares* 'servant.M/F'
b. *zanger/zangeres* 'singer.M/F', *dichter/dichteres* 'poet.M/F'

Van Marle 1985: the rule of affix replacement (adapted by Booij 2010)

Don 2015: haplology: the sequence *-*er-ster*- is simplified to *-ster*

Don's story would not work for Russian

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