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THE ANATOMY OF AN AGGREGATE: ON THE RUSSIAN SUFFIX -ЬJ-

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1 INTRODUCTION: THE SUBJECT MATTER

The main environments of the suffix *-ьj-*:

(1) a. *knʲazʲ* 'prince.SG' → *knʲazʲ-j-á* 'prince.PL' — plural augmentation
b. *durák* 'fool' → *durač-ʲj-ó* 'fools' (cf. *durak-i* 'fool.PL') — singular neat mass
c. *úgolʲja* 'embers' (cf. *úgolʲ/úgl-i* 'coal.SG/PL') — plural neat mass

Phonology: surface [ej] when word-final, [ʲj] elsewhere:

(2) a. *knʲazʲ/knʲázʲa* 'prince.NOM/GEN' → *knʲazʲjá/knʲazéj* 'prince.PL.NOM/GEN'
b. *muž/múža* 'husband.NOM/GEN' → *mužʲjá/mužéj* 'husband.PL.NOM/GEN'

The zero allomorph of the genitive plural suffix is underlyingly a yer, triggering yer lowering in the preceding syllable when followed by another yer (Lightner 1965, Pesetsky 1979)

After [j] the nominative singular surfaces as [o] under stress, as [e] otherwise:

(3) a. *duračʲjó* 'fools' (cf. *durák* 'fool') — neat mass *singularia tantum*
b. *višénʲje* 'cherries, cherry trees' (cf. *víšnʲa* 'cherry')

The nominative plural ending is *-a* ([–feminine] only)

Roadmap:

- *-ьj-* on the junction of mass and plural
- stress assignment and structure
- the morphosyntax of the complex suffixes
- on semantic deletion

2 THE SEMANTICS OF PLURALITY AND MASS

The distribution of the suffix *-ьj-* instantiates the general variation in grammatical mass/count encoding (Landman 2011, Sutton and Filip 2021):

(4) a. *meubilair* 'furniture' — Dutch (Landman 2011)
b. *meubel* 'a piece of furniture.SG', *meubels* 'furniture.PL'

(5) a. *mobilia* 'furniture' — Italian (Chierchia 2010)
b. *mobile* 'a piece of furniture.SG', *mobili* 'pieces of furniture'

(6) a. *linsen* 'lentils.PL' (German), *lentils* (English) — Sutton and Filip 2021
b. *lešta* 'lentils.SG' (Bulgarian); *čočka* 'lentils.SG' (Czech)

There is systematic variation for superordinate/aggregate (4)-(5) and granular (6) concepts

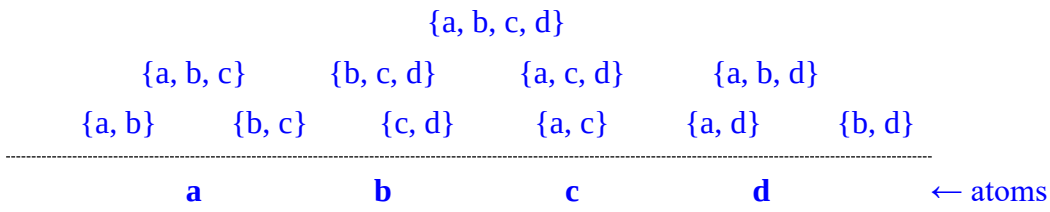
Enter *object mass nouns*, a.k.a. *fake mass nouns* (Chierchia 1998), *count mass nouns* (Doetjes 1997), or ***neat mass nouns*** (Landman 2011):

I'm using Landman's term because it has a complementary one: not only neat but also mess mass nouns

- behave like mass nouns: cannot be combined with cardinals or pluralized
- behave like plurals: support distribution (Rothstein 2010, Schwarzschild 2011) and cardinality comparison (Barner and Snedeker 2005)
- have minimal units (atoms)

Link 1983, Landman 1989, etc.: plural predicates form an atomic join semi-lattice:

(7)



Mass nouns are often assumed to not have any minimal parts, but this is not true, especially for neat mass nouns, which seem to **have the same structure** as **plurals** (Chierchia 1998, see also Gillon 1992 and Rothstein 2004)

2.1 Mass nouns and counting

Mass nouns cannot combine with cardinals:

(8) a. ??seven bloods
b. five beers (= packages of beer) package reading
c. three wines (= sorts of wines) sub-kind reading

Reason: either they have no atoms at all (Link 1983, Landman 1989, 1991) or their only non-vague atom is the entire kind (Chierchia 1998)

But **neat mass** nouns have minimal parts!

(9) a. five *(pieces of) furniture, three *(pieces of) mail

b. *semʲ klubnik-Ø/-i
seven strawberries.SG-PL.GEN/SG.GEN

c. *pʲatʲ lʲud-a
five folk.SG.GEN

Russian

Neat mass nouns obviously contain atoms, which can be counted:

(10) a. **How much luggage** did you bring? – Thirty kilos, *but also* Three pieces.
b. three *(pieces of) **luggage**

What's wrong with |luggage|?

Two issues: counting and pluralization

Ionin and Matushansky 2006, 2018: **cardinals do not combine with plurals**:

(11) $[\![\text{three}]\!] = \lambda P{\in}D_{\langle e,t\rangle} . \lambda x{\in}D_e . \exists S{\in}D_{\langle e,t\rangle} [\Pi(S)(x) \wedge |S| = 3 \wedge \forall s{\in}S\ P(s)]$

(12) $\Pi(S)(x)$ is true iff partition
S is a *cover* of x, and
$\forall z, y{\in}S [z{=}y \vee \neg\exists a [a \leq_i z \wedge a \leq_i y]]$ (Forbidding that cells of the partition overlap ensures that no element is counted twice.)

(13) A set of individuals C is a *cover of a plural individual* X iff
X is the sum of all members of C: $\sqcup C = X$

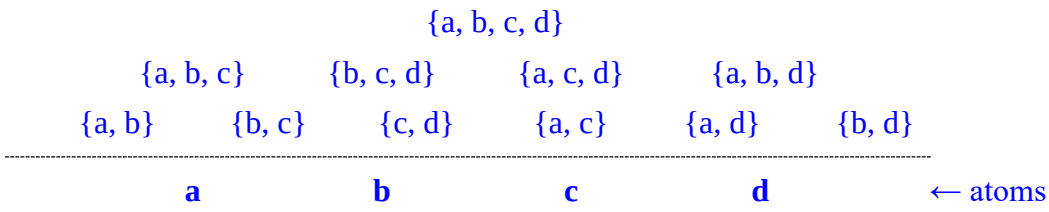
In normal words: cardinals combine with atomic sets and do the multiplication

Mass nouns, neat or mess, do not form atomic sets

Hypothesis: the denotation of neat mass nouns is an atomic join semi-lattice

Then, of course, (7) cannot be counted!

(7)



Nor can it be pluralized: pluralization of (7) would just return (7)

NB: there are lots of very complicated issues set aside (see, e.g., Sutton and Filip 2021 for a discussion where neat mass nouns come from), my concern here is just the denotation of neat mass nouns vs. plurals

2.2 The suffix -*ьj*- and plural/mass lexicalization

Question: if neat mass noun and plurals have the same structure, could the suffix -*ьj*- in (14) be interpreted as yielding mass in (14a) and as yielding plural in (14b)?
Note the optionally plural neat mass noun in (14c), we will return to this issue in section 5.2

(14) a. *durák*/*durakí* 'fool.SG/PL' vs. *duračʲjó* 'fools'
b. *list*/*lístʲja* 'leaf.SG/PL' vs. *listvá* 'foliage'
c. *otrébʲje*/*otrébʲja* '(human) rabble.SG/PL'

The suffix -*ьj*- in (14b) is a plural augment, but not the locus of pluralization:

(15) pʲatʲ list-ʲj-ev
five leaf-AUG-PL.GEN
five leaves

Remember, in I&M's approach **cardinals combine with singulars** (see also Matushansky and Ruys 2015a, b, Ruys 2017)

Question: what is the role of the augment?

3 Augmentation and stress

Russian nominative plural has two productive allomorphs (-~~*i*~~, -*a*) and two non-productive ones (-*e*, -*i*)

(16) [a]: accented (the original IE neuter plural)

a.	*ognívo* '(fire) steel'	*ogníva* 'steels'	*ognívami* 'steels.INS'	accented stem
b.	*móre* 'sea'	*morʲá* 'seas'	*morʲámi* 'seas.INS'	unaccented stem

The originally neuter -*a* allomorph has expanded to the masculine
Zaliznjak 1967a:2331 notes substandard [a]-plurals for 3decl nouns, e.g., *krovʲá* 'blood.PL'
Bromley and Bulatova 1972:102-103, Iordanidi 2020: dialectally, all classes of nouns may have plurals in -*a*

The non-neuter plural suffix -*a*- is accented and dominant:

(17) a. *profésson* 'professor.NOM' ***professorá* 'professor.PL.NOM'**
***profésson*a 'professor.GEN'** *professorámi* 'professor.PL.INS'

b. *flígelʲ* '(house) wing.NOM' ***fligelʲá* '(house) wing.PL.NOM'**
***flígelʲa* '(house) wing.GEN'** *fligelʲámi* '(house) wing.PL.INS'

Even though in Russian stress is aligned with the leftmost underlying accent (Kiparsky and Halle's (1977) Basic Accentuation Principle), there exist no non-neuter *a*-plurals that have stress on the stem

Two exceptions: **augmented plurals in *-ьj-*** (the topic of this talk) and the suppletive "baby-diminutive" suffix *-ьnъk-* ([ʲonok], plural *-ьnt-* [ʲat], see Gouskova and Bobaljik 2022)
Once augmented plurals in *-ьj-* are explained, the same analysis will apply to the suppletive "baby-diminutive)

3.1 Augmented plurals in *-ьj-*

Closed class, ca. 40 nouns, all masculine or neuter
Zaliznjak 2010 lists 55 nouns with this augment. 12 of them have no corresponding singular, at least one (*grózdʲja* 'bunches.PL') is a collective misanalyzed as a plural (see Appendix B)

(18) a. *dʲádʲa/dʲadʲjá* 'uncle.SG/PL' a-declension (unique)
b. *brat/brátʲja* 'brother.SG/PL' C-declension
c. *krɨlʲó/krɨlʲja* 'wing.SG/PL' o-declension

Although **the non-neuter plural suffix *-a-* is accented and dominant**, augmented masculine plurals need not be stressed on the inflection:

(19) a. *kól/kólʲja* 'stake M.SG/PL'
b. *líst/ lístʲja* 'leaf M.SG/PL'

In fact, augmented plurals in *-ьj-* exhibit two stress patterns:

- stem-final stress for all inanimate nouns irrespective of their gender or the position of the stress in the singular (e.g., *kólos/kolósʲja* 'ear (of a cereal).SG/PL') and one animate noun (*brat/brátʲja* 'brother.SG/PL')
- inflectional stress for all remaining animate nouns (e.g., *déverʲ/deverʲjá* 'husband's brother.SG/PL')

But for this one exception, it would seem that **the stress of augmented plurals in *-ьj-* depends on animacy**

How come?

I will minimize the technical details and go straight to the point

Proposal: **augmentation involves two different structures in function of animacy**

3.2 Inanimate augmented plurals

Stress surfaces before the augment irrespective of the position of the stress in the singular:
To ensure the distinction between accented and unaccented stems, use disyllabic stems (5 masculines, 4 neuters). Nouns with medial stress (neither initial, not final) must have accented stems

(20) a. *kopɨ́l, kopɨlá* 'wooden hoe.NOM/GEN' → *kopɨ́lʲja* 'wooden hoes'
b. *kólos, kólosa* 'ear (of a cereal).NOM/GEN' → *kolósʲja* 'ears (of a cereal)'

(21) a. *dérevo* 'tree' → *derévʲja* 'trees'
b. *pomeló* 'broom' → *pomélʲja* 'brooms'
c. *koléno* 'elbow, joint' → *kolénʲja* 'elbows, joints'

Puzzle: no masculine-triggered dominance (20a): **even though the nominative plural ending is -*a*, stress needs not be inflectional with masculine nouns**

It might seem that -*ьj*- does something to circumvent the accentual dominance associated with the masculine (which we still don't know the source of)

The answer comes from morphosyntax: **what is the augment for?**

Suppose stems requiring augmentation in the plural cannot take regular plural morphology (see Appendix C), and the augment -*ьj*- is introduced to enable plural marking

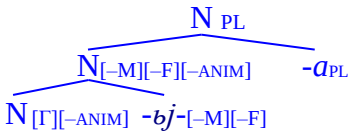
Like most suffixes of Russian, it is specified for phi-features

As we have independent evidence that the augment -*ьj*- is lexically specified [–M][–F] (i.e., as neuter), **-*ьj*- augmented stems would not be masculine**

3.2.1 Morphosyntax

Like any derivational suffix specified for gender, -*ьj*- overrides the gender specification of the nominal stem:

(22)



The gender of the nominal stem (Г) does not matter

The nominative plural suffix is not accentually dominant because the stem it combines with is not masculine

3.2.2 Morphophonology

Because **the -*ьj*-augmented nominal stem (22) is neuter**, the plural suffix -*a* is non-dominant and can never be stressed if preceded by another accent

This other accent is introduced by the augment -*ьj*-:

(23) a. *pomeló, pomelá* 'broom.N.NOM/GEN' → *pomélʲja* 'brooms' post-accenting stem
b. *dérevo, déreva* 'tree.N.NOM/GEN' → *derévʲja* 'trees' can be an unaccented stem
c. *koléno, koléna* 'elbow, joint.N.NOM/GEN' → *kolénʲja* 'elbows, joints' accented stem

Hypothesis: -*ьj*- is underlyingly accented:

- Halle 1973, 1975, 1997, Melvold 1989, etc.: stress assigned to an unvocalized yer is shifted one syllable to the left
- The augment -*ьj*- contains a yer (which can surface in the genitive plural, and then it is stressed (2))

If initial stress in the singular indicates that the stem is unaccented, stress is determined by the augment:

(24) a. *dérevo, déreva* 'tree.N.NOM/GEN' unaccented stem
b. derev + ьj → derev + 'ьj → derévьj accented yer-containing suffix
c. derévьj + a → *derévʲja* 'trees' accented ending

Stem-final stress indicates that the stem is an accented one, stress remains on the same syllable (where it is assigned both by the accentuation of the stem and the forced pre-accentuation of the augment):

(25) a. *koléno, koléna* 'elbow, joint.N.NOM/GEN' accented stem
b. kolen + ьj → kolén + 'ьj → kolénьj accented yer-containing suffix
c. kolénьj + a → *kolénʲja* 'elbows, joints' accented ending

Post-stem stress in the singular indiactes that the stem is post-accenting: an accent is assigned to the augment (which is itself accented, too), but as a yer cannot bear stress, the stress is moved to the stem-final syllable:

(26) a. *pomeló, pomelá* 'broom.N.NOM/GEN' post-accenting stem
b. pomel_ + ьj → pomel' + 'ьj → poméльj
c. poméльj + a → *poméльja* 'brooms'

The same outcome would be achieved if the augment -*ьj*- were treated as simply pre-accenting: its accent would precede the accent of the stem (see Garde 1998:125 for other cases of a post-accenting stem followed by a pre-accenting suffix)

There is no need to treat the suffix -*ьj*- as dominant, but it must bear an accent

3.2.3 Intermediate summary

Assuming that the augment -*ьj*- yields neuter stems explains why augmented masculine nouns do not take the dominant plural ending

The hypothesis that -*ьj*- is accented accounts for the obligatory stem-final stress for all types of singular stems

All *pluralia tantum* nouns in -*ьj*- (e.g., *xlópʲja* 'flakes') are inanimate and have stem-final stress

But there is a class of masculine -*ьj*-augmented nouns with **inflectional stress in the plural**

3.3 Animate augmented plurals

There are ten animate augmented nouns in -*ьj*-:
- All are kinship nouns (i.e., animate; animacy is a grammatical feature in Russian)
- All have monosyllabic stems (and stem stress in the singular)
- Only one noun belongs to the *a*-declension, the rest belong to the C-declension (no difference between them)

Nine augmented nouns surface with **inflectional stress in the plural**, one does not:

(27) a. *zʲatʲ/zʲatʲjá* 'daughter's husband.SG/PL' regular animate augmented
b. *dʲádʲa/dʲadʲjá* 'uncle.SG/PL' *a*-declension augmented
c. *brat/brátʲja* 'brother.SG/PL' stem-stress animate augmented

Inflectional stress in nine out of the ten animate augmented plurals requires an explanation
NB: stem stress in the singular might point at an accented or an unaccented stem

Remember, the augment introduces an accent (which is why inanimate augmented plurals all have stem-final stress) and this accent should win from the accent of the case ending

Why is this not happening?

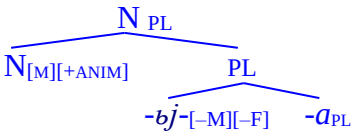
(i) The ending *-a-* could be dominant in augmented animate plurals, and then the stem-stressed *brátʲja* 'brothers' could be an exception

(ii) The accent introduced by the augment *-ьj-* could be deleted after animate stems, and then the stem stress in *brátʲja* 'brothers' would result from having an accented stem (all others would be unaccented)

Or…

Proposal: complex suffix formation:

(28)



I will not argue for the idea of complex affixes here (ask me, I have a lot to say), just remember: this option is implicit in the idea of "syntax all the way down"

3.3.1 Morphophonology

The complex PL node is a phonological cycle

Both suffixes are underlyingly accented, but a yer cannot bear stress, so the accent shifts to the case ending:

(29) ьj + a → ьjá

The accent of the augment is either deleted or coalesces with the plural accent

An unaccented stem would yield inflectional stress in the plural:

(30) a. *zʲatʲ/zʲatʲjá* 'daughter's husband.SG/PL' unaccented stem
b. zʲatʲ + ьja → *zʲatʲjá*

Stem stress in the plural can arise from either an accented or a post-accenting specification:

(31) a. *brat/brátʲja* 'brother.SG/PL'
b. brat + ьja → *brátʲja* accented stem
c. brat_ + ьja → brat' + ьja → *brátʲja* post-accenting stem

Since a yer cannot bear stress, the accent assigned by a post-accenting stem is shifted to the left (cf. (26))

Most animate augmented plurals have unaccented stems
Actually, a post-accenting stem could lead to inflectional stress (if the yer is deleted in the complex suffix), and this might explain something about stress in genitive plurals

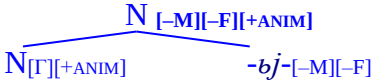
Caveat: one animate augmentable noun, *dʲádʲa* 'uncle', has an accented stem in the singular. See Appendix B for a discussion

3.3.2 Morphosyntax

Why must such a complex suffix be formed?
And why only with animates?

Proposal: the suffix *-ьj-* is incompatible with animate stems:

(32) *



The neuter specification of *-ьj-* overrides the gender specification of the nominal stem (cf. the German diminutive suffix *-chen*)

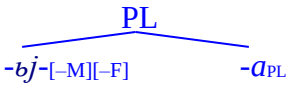
But **neuter animates are not allowed in Russian** (e.g., *čudóviščе* 'monster' is grammatically inanimate (in the singular; in the plural it can be animate))

The formation of the complex suffix enables pluralization of animate *singularia tantum* stems without creating an animate neuter:

- Stankiewicz 1968:39, Timberlake 2004:130, Wiese 2004:352, Pertsova 2015:231, etc.: Russian has no gender distinctions in the plural
- Gender features are impoverished in the context of [+ plural], so the complex PL node is not specified for gender and **there is no conflict with animacy any more**

The complex plural node has no gender features:

(33)



The complex suffix *-ьj-a-* can combine with an animate stem

The masculine stem is will not render the plural suffix *-a* dominant because they are not local enough with respect to each other

3.4 Intermediate summary

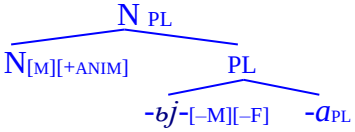
Plural augmentation in Russian involves:

- a nominal stem that is incompatible with plural morphology (see Appendix C)
- a neuter suffix *-ьj-* that creates a pluralizable stem; the suffix is accented but cannot bear stress
- the plural suffix *-a*, which does not become dominant because all augmented stems are specified as neuter (even when the base stem is masculine)

This combination entails **obligatory stem-final stress for inanimate augmentable nouns**

The incompatibility of the neuter suffix with an animate stem forces the formation of a complex plural suffix:

(34)



The unstressability of the augment yer forces its accent rightwards (it has nowhere else to go). But even if it is deleted, the inflection is accented too, so stress will surface on the inflection (unless the stem is accented)

Two possible alternatives are examined and rejected in Appendix E

4 INTERMEDIATE CONCLUSION

On the semantic side the distribution of the suffix *-ьj-* fits into the more general phenomenon of variable mass/plural lexicalization of granular and superordinate concepts

> This has been accounted for by the hypothesis that the denotation of plural and neat mass nouns is the same (atomic join semi-lattice)

On the morphological side it forces a neuter nominative plural in *-a* irrespective of the gender of the base

> This has been explained by assuming that *-ьj-* is neuter
> Incidentally, the same hypothesis also explains why animate masculine nouns derived with the baby-diminutive suffix *-ьnъk-* (surface [ʲonok]) take the nominative plural in *-a*: the plural allomorph of the suffix is neuter. For the general argument that Russian might have gender change in the plural see my work in the forthcoming volume for Masha

On the phonological side the plural augment *-ьj-* exhibits different behavior with animate and inanimate bases while obviating the accentual dominance of the nominative plural *-a* with non-neuters

> This has been attributed to the incompatibility of the neuter suffix *-ьj-* with animate bases forcing the formation of a complex suffix

Remaining current issues:

- independent motivation for semantic deletion
- independent motivation for complex affix formation
- reason for augmentation: why are some stems incompatible with plural endings?

To keep in the background: why is *-a* dominant in masculine plurals?

5 THE LEXICAL SEMANTICS OF *-ЬJ-*

The suffix *-ьj-* cannot be aggregate-forming when used as an augment: neat mass nouns do not pluralize or combine with cardinals

Proposal: the suffix *-ьj-* itself is semantically vacuous in the context of the feature [+plural]

Two options:

- semantic deletion: an actual process, which could also underlie affix telescoping (cf. Haspelmath 1995) or Modal Concord (Geurts and Huitink 2006)
- a form of allosemy (Marantz 2013): the choice of an appropriate allomorph

I believe in the former option because so many other affixes do it

5.1 Semantic deletion

The agentive suffix *-telʲ-* strictly obeys the **External Argument Generalization** of Levin and Rappaport Hovav 1988 and Rappaport Hovav and Levin 1992:
Out of the 730 *-telʲ-* nouns in Zaliznjak 2010 275 are inanimate, 455 are animate

- agents/experiencers (35) and instruments (36)
- no patients, themes, locatives, etc. (unlike the English *-er*)

(35) a. *lʲubí-tʲ* 'love-INF'
b. *lʲubí-telʲ* 'an amateur'

(36) a. *vɨklʲučá-tʲ* 'turn off.IMPFV-INF'
b. *vɨklʲučá-telʲ* 'a light switch'

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

5.1.1 Adjectivization of agentives

The addition of the adjectivizing suffix *-ьn-* can lead to *affix telescoping* (Haspelmath 1995): the meaning of the inner affix is absent from the meaning of the adjective (Matushansky 2023):

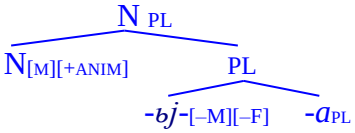
(37) a. *predoxranítʲ* 'to protect, preserve' → *predoxranítelʲ* 'electrical fuse, safety device' → *predoxranítelʲnɨj* 'preservative, preventive, protective'

b. *nosítʲ* 'to carry, wear, bear' → *nosítelʲ* 'carrier' (rocket carrier, information bearer) → *nosítelʲnɨj* 'wearable, transportable'

Matushansky 2023: this only happens when a complex suffix is created

In fact, for a structure like (28) to be interpretable, the inner affix must be semantically inert:

(28)



Semantic deletion of *-ьj-* in the context of [+plural] therefore feeds complex suffix formation

5.1.2 Feminization of agentives

The feminizing suffix *-nic-* generally functions as the feminine counterpart of the agentive (or nominalizing) suffix *-nik-*:

(38) a. *plemʲánnik* 'nephew' → *plemʲánnica* 'niece'
b. *učeník* 'student' → *učeníca* 'female student'

Its nominalizing component seems lost when it is additive:
There is no special reason for choosing *-nic-* for the agentive suffix *-telʲ-*, in Ukrainian *-ǔk-* is used (although the suffix is non-productive)

(39) *učítelʲ/učítelʲnica* 'a teacher', *vodítelʲ/vodítelʲnica* 'a driver', *voítelʲ/voítelʲnica* 'a warrior', *rodítelʲ/rodítelʲnica* 'a parent'

Haspelmath calls such bleaching *conglutination*: the semantically overlapping contributions of the base and the affix only count once

5.2 Pluralia tantum in *-ьj-*

If the aggregate-forming suffix *-ьj-* is semantically inert in the context of a plural, what is the status of *pluralia tantum* in *-ьj-*?

Hypothesis: these are simple *pluralia tantum* nouns:

A stem can be specified as lexically plural while being semantically count or mass

Count *pluralia tantum* (see also Grimm and Dočekal 2021 on Czech and Karttunen 2006 on Finnish):

(40) a. *sáni* ‘sledge’
b. *dvoe sanej* ‘two sledges’

Mass *pluralia tantum* (cf. Gillon 1992):

(41) a. *kandalí* ‘fetters’ neat mass (divisible objects, like *pottery*)
b. *drová* ‘firewood’ mess mass

A stem can also be incompatible with plural endings (as assumed for the stems of augmented plurals)

Pluralia tantum in -ьj- combine the two options: they are lexically plural and incompatible with plural endings

Question: are there mess mass *pluralia tantum* with -ьj-? Maybe:

(42) a. *loxmótʲja* ‘rags, tatters’
b. *ugódʲja* ‘useful land.PL’ (dictionaries list *ugódʲje* ‘a lot of useful land’, but I didn’t even know there was such a singular)

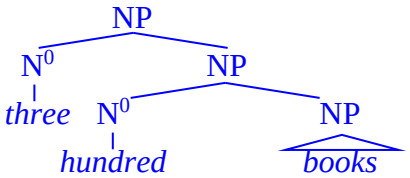
There are only about 10 *pluralia tantum* in -ьj-, all others are clearly neat mass

APPENDICES

A WHY DO CARDINALS COMBINE WITH SINGULARS?

Ionin and Matushansky 2006, 2018: to construct complex cardinals in syntax we need a fully recursive semantics and a cascading structure:

(43)



Each higher head may assign case to its sister or agree with it (if it is an adjective)

Also, number marking in plural numeral NPs can be sensitive to individuation hierarchies

B THE CHOICE OF THE EXCEPTION

Animate augmentable nouns are actually not uniform in the singular or in the plural:

- *dʲádʲa/dʲadʲjá* ‘uncle.SG/PL’ behaves like it has an accented stem in the singular, which suggests that the ending is dominant
- *brat/brátʲja* ‘brother.SG/PL’ has stem stress in the plural, which argues against the accentual dominance of the ending

Two potential resolutions: either *brat* ‘brother’ or *dʲádʲa* ‘uncle’ should be an exception

B.1 Stem stress in the animate a-declension stem

All C-declension singular endings are unaccented, so unaccented and accented stems cannot be distinguished in the singular

In the *a*-declension singular endings are accented except for accusative (Garde 1968a, b, 1998, Halle 1973, Melvold 1989, etc.):

		SG.NOM	SG.ACC	PL.NOM	PL.INS	TRANSLATION	ENDING ACCENT
(44)	a.	*ruká*	*rúku*	*rúki*	*rukámi*	'hand'	unaccented
	b.	*máma*	*mámu*	*mámы*	*мámami*	'Mommy'	accented
	c.	*dʲádʲa*	*dʲádʲu*	*dʲadʲjá*	*dʲadʲjámi*	'brother of a parent'	**accented**

If the stem of *dʲádʲa* 'uncle' were…:

- post-accenting, systematic final stress would wrongly be expected: **dʲadʲá*/**dʲadʲú*
- unaccented, the accented nominative singular ending would wrongly be predicted to inflectional stress: **dʲadʲá*/ ✓*dʲádʲu*

The singular *dʲádʲa* 'uncle' behaves like it has an accented stem, so **stem stress is expected in the plural** (cf. (30b))

This suggests that the plural nominative ending *-a* is dominant for animate augmented plurals, but then *brat/brátʲja* 'brother.SG/PL' in (30b) would not be expected
The dialectal *bratʲjá* is in fact attested (reported by two of my informants)

B.2 Plural collectives

Some augmented plurals in *-ьj-* are **fake mass *pluralia tantum*** nouns (like *clothes*; no singular):

(45) a. *otrébʲja* '(human) rabble.PL' (cf. *otrébʲje* 'rabble, trash.N')
b. *loxmótʲja* 'rags', *xlópʲja* 'flakes'

Like other *pluralia tantum* nouns, such collectives cannot combine with cardinals

The noun *dʲádʲa* 'uncle' has both a plural collective and a regular plural:

(46) a. *dʲadʲjá* 'brothers of a parent'
b. *dʲádʲi* 'uncles'

Only the latter is compatible with a cardinal:

(47) sem^{j} dʲad-ej/*dʲadʲ-j-ev
seven uncle-PL.GEN/AUG-PL.GEN
seven uncles

No instances of *dʲadʲjá* with a cardinal in the Russian National Corpus (RNC). Occurrences are attested with (seemingly non-restrictive) collective cardinals (i.e., *my two uncles*)

The morphologically regular *dʲádi* 'uncles' has the same broader interpretation as the singular, unlike *dʲadʲjá* 'brothers of a parent'

B.3 Other augmented/regular plural doublets

Some apparent doublets involve different semantics:

(48) a. *koléno/koléni* 'knee.SG/PL' -i plural
b. *koléno/koléna* 'dance move.SG.NOM/PL.NOM' -a plural
c. *koléno/kolénʲja* 'joint, elbow.SG.NOM/PL.NOM' augmented plural

The regular form may be non-default:

(49) a. *sɨn/sɨnovʲjá* 'son.SG/PL' doubly augmented plural
b. *sɨn/sɨnɨ́* 'descendant (of an abstract entity).SG/PL' -ɨ plural

In some doublets the augmented form is a *pluralia tantum* fake mass noun:
Diagnosed by the lack of appearance with a cardinal in the Russian National Corpus (RNC)

(50) a. *loskút/loskutɨ́* 'shred.M.SG/PL' plural
b. *loskútʲja* 'shreds' fake mass

This explains *grozdʲ* 'bunch', the only feminine/third-declension noun that appears to take the plural augment (the regular form *grózdi* 'bunches.PL' also exists):

(51) a. *grozdʲ/grózdi* 'bunch.SG/PL' plural
b. *grózdʲja* 'bunches' (cf. archaic masculine singular *grozd* 'bunch') fake mass

The augmented plural noun *grózdʲja* 'bunches' is a fake mass noun:
Out of the 5 people I checked none accepted the augmented plural in the context of a numeral, three disallowed it also under negation (while accepting the non-augmented plural), and one exhibited ineffability

(52) a. semʲ list-jʲ-ev
seven leaf-AUG-PL.GEN
seven leaves

b. semʲ ?grozdej/*grozdʲjev
seven bunches
seven bunches

c. U nas net ?grozdej/?grozdʲjev.
at/by us NEG bunches
We have no bunches.

Since the regular plural is difficult too, the evidence that it is a *plurale tantum* is weak
On the general phenomenon of ineffability of certain genitive plurals in Russian see Sims 2006, Bailyn and Nevins 2008, Pertsova 2014, 2015, etc.

Others are simply stylistic variants:

(53) a. *kámenʲ/kámni* 'stone.SG/PL' plural
b. *kámenʲ/kaménʲja* '(precious) stone.SG/PL'

As the same suffix *-ьj-* can create plurals as well as singular and plural fake mass nouns (45b), its versatility should be subject to separate investigation (Appendix 2)

C THE ROLE OF THE AUGMENT

Hypothesis: stems requiring augmentation in the plural cannot take regular plural morphology because **they are underlyingly specified as singular**

Distinguish two number features:

- the morphosyntactic feature [α plural]: can be set as [+plural] by agreement with a higher head (either with Link's (1983) ∗-operator or with a cardinal), an underlying

[+ plural] yields *pluralia tantum* nouns, like *časí* 'watch'). Otherwise will be set as [–plural]

- the morphosemantic feature [α cumulative]: mass nouns are [+ cumulative] (just like superlatives are [+ definite]). However, most count nouns are not specified for this feature at all (again, like most modifiers would trigger neither [+ definite] nor [– definite])
- the combination of [+ cumulative] with an underlying [+ plural] correlates with *pluralia tantum* mass nouns

The combination [–cumulative][+plural] is ruled out:

- either because [+ plural] semantically entails [+ cumulative]
- or because the [plural] node is a dependent of the [cumulative] node in the feature geometry

The role of the augment is to override the [– cumulative] feature of the nominal stem

Why [α cumulative]?

Because assuming that augmentable nouns are underlyingly specified as [– plural] would not explain why they cannot be used as-is in plural contexts under our general assumptions about how agreement works

The feature [+ cumulative] might also determine the distribution of Engish bare plurals

D SOME OTHER ATYPICAL PLURALS

D.1 Other augmented plurals

Two types of augmented plurals (setting aside stem suppletion): plural only and derivational

Up to five nouns form their plural with the augment *-es-*, which is also used in other derivation:

(54) a. *nébo/nebesá* 'sky', cf. *nebésnɨj* 'celestial'
b. *čúdo/čudesá* 'miracle', cf. *čudésnɨj* 'miraculous', but also *čúdnɨj* 'wonderful'
c. *drévo/drevesá* 'tree' (obsolete, the normal form is *dérevo*), cf. *drevésnɨj* 'wood'
d. *slóvo/slovesá* 'word' (obs., the normal plural is *slová*), cf. *slovésnɨj* 'oral, verbal'
e. *télo/telesá* 'body' (obs., the normal plural is *telá*), cf. *telésnɨj* 'corporal'

Nouns derived with the **baby-diminutive** suffix *-ĭnŭk-* (Gouskova and Bobaljik 2022; surface [ʲonok] in the nominative, [ʲonk] in obliques) form their plural with the suffix *-ĭnt-* [ʲat]), which takes the nominative in [a] (and this -a- is non-dominant, indicating that the suffix *-ĭnt-* [ʲat] is also neuter):

(55) a. risʲ
lynx III.NOMFSG
lynx

b. risʲ-onok
lynx-ONOK.NOMMSG
baby lynx

c. risʲ-ata
lynx-ONOK.NOMPL
baby lynxes

Derivation can be only based on the plural stem (*jagnʲáčij* 'baby lamb A', *telʲátina* 'calf meat'), sometimes without the baby diminutive semantics (e.g., *medvežátina* 'bear meat')

Singulatives in *-in-* (Geist and Kagan 2023) have plurals in *-e-*:
The plural suffix *-e-* is not attested anywhere else in nouns but is present in the functional adjectives *te* 'those', *vse* 'all.PL' and *obe* 'both.F.PL'. The former two also exhibit [e] in the instrumental singular (*tem* 'that.SG.INS', *vsem* 'all.SG.INS'. The [e] in (56) could be purely orthographic, as in unstressed syllables /e/ is neutralized to [i].

(56) a. *graždanín* ‘citizen’ *grážd**a**ne* ‘citizens’
b. *krestjánin* ‘peasant’ *krestjáne* ‘peasants’

The suffix *-in-* can exceptionally form regular plurals (e.g., *osetín/osetíni* ‘Ossetian.SG/PL’)

D.2 Neuter non-*a*-plurals

Two types of exceptions: systematic ones (k-final) and lexical ones (5 nouns)

Diminutive neuters in [k] have *i*-plurals:
The change to the surface [i] is obligatory after velars

(57) a. *plátʲje/plátʲja* ‘dress N.SG/PL’ → *plátʲjiško/plátʲjiški* ‘dress N.DIM.SG/PL’ *-išĭk-*
b. *ózero/ozʲóra* ‘lake N.SG/PL’ → *ozerkó/ozerkí* ‘lake N.DIM.SG/PL’ *-ĭk-*
c. *kolesó/kolʲósa* ‘wheel N.SG/PL’ → *kolʲósiko/kolʲósiki* ‘wheel N.DIM.SG/PL’ *-ik-*

(58) historically derived: *očkó/očkí* ‘(sports) point.SG/PL’, *drévko/drévki* ‘staff.SG/PL’, *uškó/uškí* ‘eye of a needle.SG/PL’

And in general, **k-final neuters have i-plurals** unless the ending is stressed (see Dvoryankova 2023 for a discussion):

(59) *jábloko/jábloki* ‘apple.SG/PL’, *líko/líki* ‘bast.SG/PL’, *véko/véki* ‘eyelid.SG/PL’

In fact, the opposite generalization makes more sense: **k-final neuters have i-plurals** except:

(60) *óblako/oblaká* ‘cloud.SG/PL’, *vójsko/vojská* ‘army.SG/PL’

There is one non-k neuter with a plural in *-i-*:

(61) a. *brʲúxo/brʲúxi* ‘belly.SG/PL’ (vs. *líxo/líxa* ‘trouble’, *éxo/éxa* ‘echo’)
b. *ígo/íga* ‘yoke.SG/PL’, *blágo/blágá* ‘welfare.SG/PL’

And four more neuters with plurals in [i], diagnosed by palatalization:

(62) a. regular: *koléno/koléni* ‘knee.SG/PL’
b. velar: *plečó/pléči* ‘shoulder.SG/PL’, *uxo/úši* ‘ear.SG/PL’, *óko/óči* ‘eye.SG/PL’

All in all, there are very few neuters with non-*a*-plurals that are not diminutives

E Accentual alternatives

E.1 Viable alternative: stress retraction

The so-called Pattern D (Zaliznjak 1963, 1967b, 1977a, Halle 1973, 1975, Brown et al. 1996, and Dubina 2012, among others; Melvold’s B′, Osadcha’s Pattern 4): stem-final stress in the plural, but not in the singular:

Table 1: Retraction in the plural, Zaliznjak’s patterns *d* and *d′*

suffix/accent / **singular stress**	**accented** SG.NOM	**unaccented** SG.ACC	**unaccented** PL.NOM	**accented** PL.INS	**Zaliznjak-class**
post-stem: *zmej-* ‘snake’	*zmej-á*	*zmej-ú*	*zméj-i*	*zméj-ami*	d′ (230)
variant: *zim-* ‘winter’	*zim-á*	*zím-u*	*zím-i*	*zím-ami*	d (14)

Retraction can apply to both unaccented and post-accenting stems

The augment -*ьj*- can be unaccented, with the stem-final stress in inanimates due to retraction:

(63) [[derev + **ьj**]$_1$ + a]$_2$
↓ cycle 1: nothing happens
[derevьj + a]$_2$
↓ cycle 2: lexically triggered accent retraction
[derevьj + a]$_2$
↓ cycle 2: yer-triggered accent retraction
[derevьj + a]$_2$
↓ post-cyclic yer deletion
derévʲja

No retraction in animate stems, hence final stress in the augmented plural

The stem in *brat/brátʲja* ‘brother.SG/PL’ is accented, so retains stem stress

No complex suffixes needed?

But then why is retraction triggered only in inanimates?

Complex suffix formation provides both the mechanism and the trigger

Furthermore, there exists no proper theory of stress retraction
Alderete 1999, Butska 2002, Feldstein 2006, 2017, Dubina 2012, Yanovich and Steriade 2010, Osadcha 2019: the choice of the appropriate plural form is driven by the contrast between the singular and the plural forms. Since the juxtaposition of the singular and the plural is limited to a finite number of nominal stems, the question is what property characterizes these particular stems to derive all these patterns

E.2 Could the plural ending -*a* be dominant for animate augmented plurals?

Final stress in animate augmented plurals could be due to the fact that masculine is the default for animate nouns (cf. Magomedova and Slioussar 2023)

A dominant nominative plural ending entails obligatory inflectional stress

Problem: the stem-stressed noun *brat* ‘brother’ cannot be accounted for

There is no self-evident way for obtaining stem stress with a dominant ending
Alderete 1999, 2001: there are no dominant roots

F A FEW WORDS ABOUT -*IJ*-

The aggregate suffix -*ьj*- has a homophone (or an alloseme) creating mess mass nouns, which has an allomorph -*ij*-

This allomorph does not create neat mass nouns (which is why I think there are two related suffixes)

There are no mess mass nouns with final stress (i.e., this second suffix is pre-accenting)

The question is open which one of these suffixes derives event nouns (which Chierchia 2010 regards as neat mass)

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