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RUSSIAN VERBAL STRESS RETRACTION AS NON-LOCAL ALLOMORPHY

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1. INTRODUCTION: RUSSIAN VERB STRUCTURE AND STRESS

The Russian verb productively consists of four parts:[1]

(1) a. léz- l- a athematic verb
ROOT: climb THEME: none TENSE: PAST ϕ: FSG

b. žál- i- l- a thematic verb
ROOT: sting THEME: i TENSE: PAST ϕ: FSG

The traditional notion of a "thematic suffix" is highly heterogeneous and may correspond to different morphosyntactic statuses

Verbs lacking this suffix demonstrate (see section 6.1 for elaboration) that

- the past-tense suffix *-l-* is unaccented
- the present-tense suffix *-ʲo-* is accented
- agreement morphology in the past is not accentually uniform: the FSG suffix is accented, others are unaccented

Because Russian stress placement is governed by the Basic Accentuation Principle, accentual properties of present-tense agreement morphology cannot be determined

(2) **The Basic Accentuation Principle** (Kiparsky and Halle 1977):
Assign stress to the leftmost accented vowel; if there is no accented vowel, assign stress to the initial vowel.

Since the present-tense suffix *-ʲo-* is accented, it will always win over any accents to its right

Adding a thematic suffix changes the observed stress patterns in two ways:
- there is **no stress variability in the past tense**
- a **retraction pattern** emerges in the present tense

Second conjugation verbs behave no differently from first conjugation verbs, so it is reasonable to assume that the 2nd conjugation suffix present-tense *-i-* is also accented

(3) Accentual interaction with the 2nd conjugation suffix *-i-*

		accented PRES-1SG	**accented** PRES-3SG	**accented** PAST-FSG	**unaccented** PAST-PL
a.	stem stress: *-žal-* 'sting'	*žálʲ-u*	*žál-i-t*	*žál-i-l-a*	*žál-i-l-i*
b.	post-stem: *-govor-* 'speak'	*govorʲ-ú*	*govor-í-t*	*govor-í-l-a*	*govor-í-l-i*
c.	variant 1sg: *-lʲub-* 'love'	*lʲublʲ-ú*	*lʲúb-i-t*	*lʲub-í-l-a*	*lʲub-í-l-i*

(3a) illustrates the behavior of accented stems: constant stem stress

(3b) looks like the post-accenting pattern of athematic verbs, but really just indicates that the thematic vowel is accented, we cannot know if the root is unaccented or post-accenting

(3c) is unexpected and not predicted by the BAP

[1] Transcriptions 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) final devoicing and voicing assimilation. The yers (abstract high lax unrounded vowels) are represented as /ĭ/ (front, IPA ɪ) and /ŭ/ (back, IPA ʊ). The letters ч (the IPA t͡ɕ, see Padgett and Żygis 2007), ш (IPA ʂ), ж (IPA ʐ), щ (IPA [ɕɕ]) are traditionally rendered as č, š, ž, and šč. Stress is marked by an acute accent on the vowel.

2. PRESENT-TENSE RETRACTION: THE EMPIRICAL PICTURE

The patterns in (3) appear with nearly all thematic suffixes and involve a complex underlying structure

(4) Accentual interaction in thematic verbs, illustrated for the thematic suffix *-ē-*

		accented PRES-3SG	**accented** PRES-1SG	**accented** PAST-FSG	**unaccented** PAST-PL
a.	accented: *-vid-* 'see'	*víd-ɐ-i-t*	*víž-ɐ-ǰ-u*	*víd-e-l-a*	*víd-e-l-i*
b.	post-stem: *-vel-* 'order'	*vel-ɐ-í-t*	*velʲ-ɐ-ǰ-ú*	*vel-é-l-a*	*vel-é-l-i*
c.	variant: *-vert-* 'spin'	*vért-ɐ-i-t*	*verč-ɐ-ǰ-ú*	*vert-é-l-a*	*vert-é-l-i*

2.1. Past: the thematic suffix is accented

Thematic verbs have only two accentual patterns in the past: stress on the stem and stress on the thematic suffix

This means that the thematic suffix is accented

One exceptional thematic suffix (*-a-* in the past, nothing in the present) is unaccented

2.2. Present: the thematic vowel is deleted

The sequence of two vowels in the present (theme, tense, and agreement suffixes) is resolved by turning the first vowel into a glide with subsequent iotation (2nd conj. 1SG) or deleting it

(5) $[[[\sqrt{}\text{-TH}]_1\text{-PRES}]_2\text{-1SG}]_3$ 1SG

$[[[[\text{vert-é}]_1\text{-í}]_2\text{-u}]_3$

cycle 2: VOWEL BEFORE VOWEL DELETION

$[[\text{vert-í}]_2\text{-u}]_3$

cycle 3: GLIDE FORMATION & IOTATION

[verčú]

The thematic suffix is accented, so no difference in behavior is expected between unaccented and post-accenting roots

Yet the thematic suffix is deleted! What happens to its accent? Can the difference between (b) and (c) patterns follow from the accentual properties of the root?

2.2.1. Suppose the accent of the thematic suffix is deleted together with the vowel

Predictions:

- unaccented stem: stress on the present-tense suffix (because it is accented)
- post-accenting stem: stress on the present-tense suffix (because it carries both its own accent and the accent assigned by the root)

Conclusion: the variant pattern does not follow

2.2.2. Suppose the accent of the thematic suffix falls on the present-tense suffix

Predictions: nothing happens, two accents on one syllable do not cause a clash in Russian:

(6) a. unaccented: duš-á 'soul-NOM' dúš-u 'soul-ACC'
b. post-accenting: knʲažn-á 'princess-NOM' knʲažn-ú 'princess-ACC'

Though the feminine singular (= *a*-conjugation nominative) suffix -*a*- is accented and the root -*knʲažn*- is post-accenting, no retraction occurs

Additional assumptions are needed

2.2.3. Suppose the accent of the thematic suffix is retracted after a post-accenting stem

It is, after all, possible that nominal phonology and verbal phonology are not the same

Predictions:

- unaccented stem: stress on the present-tense suffix (because it is accented)
- post-accenting stem: uniform stem-final stress (because the accent of the thematic vowel is retracted before the present-tense suffix)

Conclusion: the variant pattern does not follow

2.2.4. Suppose the accent of the thematic suffix is advanced after a post-accenting stem

It is, after all, possible that nominal phonology and verbal phonology are not the Predictions:

- unaccented stem: stress on the present-tense suffix (because it is accented)
- post-accenting stem: uniform word-final stress (because the accent falling on non-syllabic ϕ-endings will be retracted to the present-tense suffix)

Conclusion: the variant pattern does not follow

2.2.5. A red herring: the fate of the present-tense suffix

The vowel of the present-tense suffix turns into a glide before the vocalic 1SG ending but is deleted in all other person-number combinations

Feldstein 2015: the imperative (surface -*i* or -*ʲ*) and the present tense gerund (surface -*ʲa*), both based on the "present-tense stem", have the same stress placement as the 1SG form (e.g., *vert-í* 'spin!'). He attributes this to them all having a simple vowel ending of the type -V#
It is not obvious that all of these suffixes have a vowel in their underlying representation

The active present participle suffix (surface [ŭšč] for the 1st conjugation, surface [ašč] for the 2nd, most likely derived from the underlying -*nšč*-) is not stressed in variant verbs

Summary: no retraction for simple vocalic suffixes

Possible alternative: the suffix -*nšč*- is pre-accenting or retracting
Stress in active present participle generally patterns with non-1sg, but sometimes doesn't (e.g., *učúsʲ/účitsʲa* 'study.1SG/3SG' vs. *učáščijsʲa* 'studying.MSG')

2.3. Prior proposals

Melvold 1990:291: 1sg-variant roots are post-accenting but marked to undergo retraction in all forms except 1SG (why only there?)

All subsequent proposals rely on the special property of roots to trigger retraction

Question: why does retraction fail with all simple vocalic suffixes (1sg ([u]), gerund ([ʲa]) and imperative ([i]))?
And the actual mechanics of the proposal is very complicated

Idsardi 1992:124: retraction is triggered by the present tense marker, which, being deleted in the 1sg, fails to trigger retraction

Problem: the fate of the present tense marker is not the same with different vocalic suffixes:
- before the 1sg (surface [u]) it turns into a glide (obvious from iotation)
- before the imperative (surface [i]) and the present gerund (surface [ʲa]) it doesn't

Moreover, since both the 1st conjugation *-ʲo-* and the 2nd conjugation *-i-* have this effect, it is apparently not the concrete vowel that has this property (and how would it?), it is the abstract morpheme (or syllable)

Gladney 1995:114-117 discusses these verbs but does not offer an analysis

Feldstein 2015: retraction happens only with non-vocalic inflectional suffixes (but why?)

3. HYPOTHESIS: UNSTRESSABLE TENSE

What happens in retracting verbs can be viewed as **avoidance of stress on the present-tense suffix**

An unstressable morpheme is not projected onto line 0 of the metrical grid

Any **accent** that would be assigned to it will **surface on the next syllable if present and on the preceding one if not**

We already know the present-tense suffix (1st conjugation *-ʲo-*, 2nd conjugation *-i-*) is lexically accented:

(7) a.

ROOT	TH	PRES	1SG
	(*	(*	
*	*	*	*
lʲub	i	i	u

b.

ROOT	TH	PRES	1SG	
	(*	(	*	
*	*		*	
lʲub	i	j	u	→ lʲublʲú 'love.1SG'

The accent of the present-tense suffix cannot surface on the suffix itself because it is marked to resist stress, but there is a syllable after it and this is where the accent lands

The combination of the final consonant of the stem and the glide that the tense suffix has turned into before the 1sg suffix [u] undergoes mutation known as transitive softening ([bj] → [blʲ])

Non-1sg agreement morphemes after the present-tense suffix are non-syllabic (2SG is *-šŭ-* or *-š-*, depending on the analysis, 3SG is *-tŭ-* or *-t-*, 1PL is *-mŭ-* or *-m-*, 3PL is *-ntŭ-* or *-nt-*; the one exception is the 2PL *-te-* (cf. Halle 1973:327)), for which a special proviso is needed

Since ϕ-suffixes are non-syllabic and cannot bear stress, the accent of the present-tense suffix must surface on the preceding syllable, which is obviously the last syllable of the stem:

(8) a.

	*	*		
*	*			
lʲub	i	i	tŭ/t	

b.

	*	*			
*	*				
lʲub	i	i	t	→ lʲúbit 'love.3SG'	

Retraction from a non-syllabic suffix is independently motivated for Russian

With a non-variant verb the present-tense suffix is stressable (and accented):

(9) a.

	*	*		
*	*	*		
grub	i	i	tŭ/t	

b.

	*	*			
*	*	*			
grub	i	i	t	→ grubít 'be rude.3SG'	

Thus the variant pattern amounts to **allomorphy of the present-tense suffix**: unstressable vs. stressable variants

For now I retain the hypothesis that the present-tense suffix is accented even when unstressable, but given that the preceding thematic suffix is accented and deleted, some accent will be there anyway

Independent evidence for unstressability in Russian comes from the nominal domain (section 6.2)

How is this outcome achieved? Lexical trigger?

4. UNSTRESSABILITY AS THE DEFAULT

Empirical generalizations:

a. verbs with the accented thematic suffixes *-aj-* and *-ej-* or with the pre-accenting mutative suffix *-nu-*: no variant pattern

b. athematic verbs and verbs with the unaccented *-a-* thematic suffix that is deleted in the present tense (both closed classes): virtually no variant pattern

c. verbs with the accented semelfactive suffix *-nu-*: virtually no variant pattern

d. verbs with the accented suffixes *-ē-*, *-i-* and *-a-*/*-i-*: frequent variant pattern

e. 5 verbs with the accented *-ŏ-*/*-i-* (allomorph of *-a-*/*-i-*): obligatory variant pattern

(10) Stress and thematic suffixes

	PRES.1SG	PRES.2SG	INF	gloss	thematic suffixes	retraction
a.	léz-u	léz-e-šʲ	léz-tʲ	'climb'	none or Ø	2/84
b.	čit-áj-u	čit-áj-e-šʲ	čit-á-tʲ	'read'	**a/aj**	0/∞
c.	žážd-u	žážd-e-šʲ	žážd-a-tʲ	'thirst'	a/Ø	1?/22 (41)
d.	piš-ú	píš-e-šʲ	pis-á-tʲ	'write'	a/i	60/103 (84)
e.	bel-éj-u	bel-éj-e-šʲ	bel-é-tʲ	'be white'	**e/ej**	0/∞
f.	gíb-n-u	gíb-n-e-šʲ	gíb-nu-tʲ	'perish'	nu/n (mutative)	0/∞
g.	tolk-n-ú	tolk-nʲ-ó-šʲ	tolk-nú-tʲ	'push'	**nu/n (semelfactive)**	6/∞
h.	kolʲ-ú	kól-e-šʲ	kol-ó-tʲ	'stab'	o/i	5/5
i.	smolʲ-ú	smol-í-šʲ	smol-í-tʲ	'tar'	**i**	43%
j.	gorʲ-ú	gor-í-šʲ	gor-é-tʲ	'burn'	e/Ø	6/83

The parentheses in (c) and (d) indicate the uncertain status of 19 *j*-final verbs, which all have stem stress. Two *j*-verbs with final stress must belong to the *-a-*/0 class because the *-a-*/*-i-* class has no other verbs with final stress

43% for *i*-verbs is based on the calculation in Slioussar 2012, cf. her 4% for the semelfactive *-nu-*

All three classes are productive for *i*-verbs (Slioussar 2012)

Red'kin 1965, Zaliznjak 1985: no correlation between the thematic suffix and stress
Slioussar 2012, this work: there is!

There are two classes of verbs where the variant pattern is non-minor: the thematic suffix *-i-* (productive) and the thematic suffix *-a-*/*-i-*

In all other verb classes it is either absent altogether (mutative *-nu-* verbs, *-aj-* and *-ej-* verbs) or rare (*-ē-* verbs, semelfactive *-nu-* verbs, etc.)

And the same verbal root may show the variant pattern with one thematic suffix and the stem-final pattern with another:

(11) *-liz-* 'lick'
a. *ližú*/*lížet* 'lick.1SG/3SG' (suffix *-a-*/*-i-*) variant
b. *liznú*/*liznʲót* 'give a lick.1SG/3SG' (suffix *-nu-*) post-stem

So we need to be able to set different default for different thematic suffixes and yet allow for the exceptions in all verb classes that allow for the variant pattern

4.1. The variant pattern as the default

Proposal: unstressability of the present-tense suffix is an artefact of the addition of a thematic suffix

So either there is some uniformity to their status, or the lack of a thematic suffix makes the present-tense suffix obligatorily stressable (and accented). The morphosyntactic side of the proposal requires further work unless it is just a coincidence that almost all and only vowel-final thematic suffixes permit the variant pattern

Call this "metrical dominance": the thematic suffix deletes the projection of the present-tense suffix on the metrical tier

(12) a. **underlying representation**

ROOT	TH	PRES	1SG		ROOT	TH	PRES	3SG
*	(*	(*	*		*	(*	(*	*
lʲub	i	i	u		lʲub	i	i	t

b. **induced unstressability**

ROOT	TH	PRES	1SG		ROOT	TH	PRES	3SG
*	(*	(	*		*	(*	(	
lʲub	i	i	u		lʲub	i	i	t

c. **theme vowel deletion**

ROOT	TH	PRES	1SG		ROOT	TH	PRES	3SG
*	(*	(	*		*	(*	(	
lʲub	i	i	u		lʲub	i	i	t

Hypothesizing that the deletion of the theme vowel also removes the accent that is associated with it, the derivation proceeds as expected:

d. **glide formation**

ROOT	TH	PRES	1SG		ROOT	TH	PRES	3SG	
*		(	*		*		(		**retraction**
lʲub		j	u → lʲublʲú		lʲub		i	t → lʲúbit	

The accent of the deleted thematic vowel ends up on the ending and will be retracted onto the final syllable of the stem if the ending is non-syllabic or extrametrical

If we regard the accent as a tone (Dubina 2012), its behavior is even more straightforward

What does the verbal stem do?

Proposal: post-accentuation triggers recomputation of the metrical tier

As a result, the present-tense suffix becomes stressable

4.2. Post-accentuation of the root

Suppose the verbal stem is post-accenting:

(13) a. **underlying representation**

ROOT	TH	PRES	1SG
*(	(*	(*	*
govor	i	i	u

ROOT	TH	PRES	3SG
*(	(*	(*	
govor	i	i	t

b. **induced unstressability**

ROOT	TH	PRES	1SG
*(	(*	(	*
govor	i	i	u

ROOT	TH	PRES	3SG
*(	(*	(	
govor	i	i	t

c. **theme vowel deletion**

ROOT	TH	PRES	1SG
*(	(*	(	*
govor	i	i	u

ROOT	TH	PRES	3SG
*(	(*	(	
govor	i	i	t

The **floating accent** of the root **triggers the recomputation of the metrical tier**:

d. **recomputation of the metrical tier**

ROOT	TH	PRES	3SG	
*		(*		
govor		i	t	→ govorít

The (vowel of the) present-tense suffix becomes stressable

We derive the behavior of both non-accented sub-classes of i-stems from their accentual properties and the induced unstressability hypothesis

4.3. Post-accentuation of the thematic suffix

Hypothesis: since post-accentuation involves a floating accent (Revithiadou 1999) or tone (Dubina 2012), it is not affected by the deletion of a thematic vowel, i.e., **the deletion of the thematic vowel will not remove the accent** because it is not linked to the deleted segment:

(14) c. **thematic vowel deletion**

ROOT	TH	PRES	1SG
*	*	((	*
liz	nu	ʲo	u

The **floating accent** of the thematic suffix **triggers the recomputation of the metrical tier**:

d. **recomputation of the metrical tier**

ROOT	TH	PRES	3SG	
*		(*		
liz	n	ʲo	t	→ liznʲót

In the 1sg nothing changes on the surface, but the vowel of the present-tense suffix is deleted before another vowel:

In reality, this is more complicated because there is also depalatalization of the final consonant of the stem

e. **present-tense vowel deletion**

ROOT	TH	PRES	1SG
		-	

```
  *          (*     *
liz   n      ʲo     u        → liznú
```

Assuming that the semelfactive suffix *-nu-* is not accented but post-accenting explains why it may trigger the variant pattern but usually doesn't: the capacity is there, but removed by the post-accentuation of the theme

To account for the five cases where the variant pattern arises, I propose that **those roots are post-accenting and dominant**

Dominant roots override the accentual properties of the thematic suffix, which will no longer have a floating accent, so the present-tense suffix will remain unstressable

4.4. Two variant 2nd conjugation verbs with the thematic suffix *-a-* in the past

Independent confirmation of the link between the variant pattern and unaccented stems: the two 2nd conjugation verbs with the thematic suffix *-a-* in the past (*gnátʲ* 'to chase', and *spátʲ* 'to sleep')

While *gnátʲ* 'to chase' is variant in the present, *spátʲ* 'to sleep' can be (the root is asyllabic, so it is impossible to tell):

(15) a. gonʲú/gónit 'chase.1SG/3SG'
b. splʲú/spít 'sleep.1SG/3SG'

Both exhibit accentual variability in the past:

(16) a. gnalá/gnáli 'chase.PAST.FSG/PL'
b. spalá/spáli 'sleep.PAST.FSG/PL'

Accentual variability in the past is a diagnostic of the lack of a preceding accent, i.e., both the stem and the thematic suffix are unaccented

Of the two athematic verbs showing the variant pattern one (*podnátʲ* 'to raise') is also unaccented, but the other (*močʲ* 'be able') is post-accenting, contradicting this generalization. I hope in reality it is merely unaccentable as well as unaccented

4.5. The accent of the present-tense suffix

Crucial for us is the difference between the accented suffix *-i-* and the post-accenting suffix *-nu-*: when the vowel is deleted, the accent of *-i-* is deleted and the accent of *-nu-* is preserved

What about the accent of the present-tense suffix deleted before the 1sg ending?

Two options:

- the present-tense suffix is post-accenting rather than accented (no effect on stress placement elsewhere)
- there is some difference between the present-tense suffix and the thematic suffix that allows the retention of the accent of the present-tense suffix even when the suffix itself is deleted

I think the former option is better

5. Conclusion and further issues

What looked like the present-tense allomorphy triggered by the stem-theme combination can be derived from lexically triggered unstressability combined with the accentual properties of the verbal stem

The presence of a thematic suffix triggers unstressability of the present-tense suffix

This really looks like some sort of clash resolution, but details need to be worked out

This unstressability is nullified when the thematic suffix or the root is post-accenting: the need to anchor a floating accent triggers the recomputation of the metrical tier
The same intuition can be expressed in the terms of constraints: unstressability of the present-tense suffix (in the presence of a thematic suffix) loses out to the requirements of a post-accenting stem or thematic suffix

Important: the present-tense suffix has to be underlyingly accented and stressable because of its behavior with athematic verbs

Retraction becomes an artefact of accentuation rather than an arbitrary diacritic

Natural further question: what about nominal retraction (section 6.2)?

5.1. Thematic suffixes without the variant pattern

The non-productive mutative suffix *-nu-* is pre-accenting, so the accent of the present-tense suffix will never give rise to stress (because of the BAP)

The accented thematic suffixes *-aj-* and *-ej-* are not deleted before the present-tense suffix, so stress will always appear before the present-tense suffix

The non-productive thematic suffix *-a-*/0 exhibits the variant stress pattern with just one verb, *stonátʲ* 'to moan', for which the 1sg form and the gerund are ineffable
The form of its imperative is also compatible with the *-a-*/*-i-* theme, which may be the reason why it exists. On paradigm gaps in Russian verbs see Sims 2006, Daland, Sims and Pierrehumbert 2007, Pertsova 2016, etc.

5.2. The predominantly variant suffix *-a-*/*-i-*

Verbs in this group also exhibit three accentuation patterns, but different ones
The five verbs in *-o-*/*-i-* also belong here, as they all have stems ending in *-olo-* or *-oro-*, which are systematic pleophonic (full) variants of *-la-* and *-ra-* in Russian. On Russian pleophonic variation in the Slavic context see, e.g., Sussex and Cumberley 2006:36-37;207.

(17) Accentual interaction with the 1st conjugation TS suffix *-a-*/*-i-*

		accented PRES-3SG	**accented** PRES-1SG	**accented** PAST-FSG	**unaccented** PAST-PL
a.	stem (accented): *-maz-* 'smear'	*máž-e-t*	*máž-u*	*máz-a-l-a*	*máz-a-l-i*
b.	post-stem: N/A except for *j*-final stems that judging by their accentuation belong to the *-a-*/0 class				
c.	variant 1sg: *-vʲaz-* 'tie'	*vʲáž-e-t*	*vʲaž-ú*	*vʲaz-á-l-a*	*vʲaz-á-l-i*
d.	variant present: *-koleb-* 'rock'	*koléblʲ-e-t*	*koléblʲ-u*	*koleb-á-l-a*	*koleb-á-l-i*

There are no verbs with post-stem stress but there are four verbs with the pattern (17d), where stress is retracted to the final syllable of the stem throughout the present-tense paradigm
Only the first two of the four roots with this pattern are non-archaic (Gladney 1995:115): *-koleb-* 'rock', *-kolyx-* 'sway', *-alk-* 'crave', and archaic secondary imperfectives of the cranberry root *-im-* (e.g., *vnimátʲ/vnémlʲu* 'heed', *prinimátʲ/priémlʲu* 'accept'), which take the thematic suffix *-aj-* in contemporary Russian

Verbs in *-ow-*, which obligatorily take the thematic suffix *-a-*/*-i-*, fall in two classes:
- verbs where *-ow-* is part of the stem: these have systematic post-stem stress (18)
- verbs where *-ow-* is a derivational suffix: stress falls on the stem-final syllable in the present (19a) and after the stem in the past (19b)

Final stress in the past shows that ***-ow-* is post-accenting**. What happens in the present?

(18) a. kujú/kujót ‘forge. 1SG/3SG’
b. kovála ‘forge.PAST.FSG/PL’

(19) a. riskúju/riskújet ‘risk. 1SG/3SG’
b. riskovála ‘risk.PAST.FSG/PL’

(18a) behaves as expected from a post-accenting stem: final stress, as in section 4.2
(19a) behaves as other *-a-*/*-i-* stems do: retraction

This is clear support for the intuition that it is post-accentuation of the stem that removes the variant pattern

What does stem post-accentuation with the *-a-*/*-i-* suffix do instead of making the present-tense suffix stressable again (and why and how)?
Following Halle 1973, Melvold 1990 takes variant (17d) as a core case and suggests that the accent of a deleted vowel should shift one syllable to the left. However, as pointed out by Gladney 1995, this would make only five verbs in Russian behave by default, which is surely not a desirable outcome

5.3. *-e-* as a dominant accented suffix

Stem stress in *-nu-* verbs systematically corresponds to post-stem stress in *-e-* verbs:

(20) *-krik-* ‘shout’
a. *kríknu/kríknet* ‘will give a shout.1SG/3SG’ (semelfactive suffix *-nu-*) stem
b. *kričú/kričít* ‘shout.1SG/3SG’ (suffix *-ē-*) post-stem

(21) *-pěrd-* ‘fart’ (vulgar)
a. *pʲórdnu/pʲórdnet* ‘will give a fart.1SG/3SG’ (semelfactive suffix *-nu-*) stem
b. *peržú/perdít* ‘fart.1SG/3SG’ (suffix *-ē-*) post-stem

(22) *-molk-* ‘be silent’
a. *mólknu/mólknet* ‘be silent.1SG/3SG’ (mutative suffix *-nu-*) stem
b. *molčú/molčít* ‘besilent.1SG/3SG’ (suffix *-ē-*) post-stem

I have examined all *e*-verbs that can form semelfactives (16) or mutatives (4), and this pattern is consistent with the thematic suffix *-e-* being accentually dominant

Accentual dominance of *-e-* also explains this contrast: while post-accenting nominal roots systematically give rise to verbs with stem-final stress, *-e-* wins:

(23) *pizdá/pizdú* ‘cunt.NOM/ACC’
a. *pizžú/pizdít* ‘bullshit.1SG/3SG’ (suffix *-ē-*) post-stem
b. *pízžu/pízdit* ‘steal.1SG/3SG’ (suffix *-i-*) stem

Yet *-e-* is not always dominant!

Out of the ca. 80 verbs formed with the non-productive 2nd conjugation suffix *-ē-*

There are **five *-e-* verbs with stem stress**: *slʲšatʲ* ‘to hear’, *zavísetʲ* ‘to depend’, *vídetʲ* ‘to see’, *nenavídetʲ* ‘to hate, and *obídetʲ* ‘to offend’. Maybe they have dominant stems
The last three share the root, at least diachronically

And **five show the variant pattern** (*terpétʲ* ‘to tolerate’, *deržátʲ* ‘to hold’, *smotrétʲ* ‘to look’, *vertétʲ* ‘to turn’, and *dʲišátʲ* ‘to breathe’)

These properties do not correlate either with the secondary imperfective allomorph or with transitive softening in the secondary imperfective

5.4. Lexical exceptions

Sometimes verbal stress is not predictable from accentuation

(24) *-glʲad-* ‘look’

a.		*glʲažú/glʲadít* ‘look.1SG/3SG’ (suffix *-ē-*)	post-stem
b.	(i)	*glʲánu/glʲánet* ‘will glance.1SG/3SG’ (semelfactive suffix *-nu-*)	stem
	(ii)	*proglʲánet* ‘will glance through.3SG, impers.’ (ibid.)	
c.	(i)	*vzglʲanú/vzglʲánet* ‘will glance.1SG/3SG’ (ibid.)	1sg
	(ii)	*zaglʲanú/zaglʲánet* ‘will look in on.1SG/3SG’, etc.	

The post-stem stress in (24a) is explained by the fact that *-e-* is dominant (see section 5.3)

The stem stress in (24b) suggests that the root is accented

The behavior of (24c) is unexpected both for an accented root and for the post-accenting *-nu-*
There is no clear difference in meaning between (24b-i) and (24c-i), except (24b-i) is slightly archaic

None of the five variant verbs in *-nu-* have counterparts in other thematic classes (except for the secondary imperfective in *-aj-*): even the prefixed verbs in (24c) have no *-e-* counterparts
The verbs *proglʲadétʲ* ‘to leaf through’ vs. *proglʲánutʲ* ‘to become visible through’ are not an aspectual pair

(25) *-svist-* ‘whistle’

a.	*svístnu/svístnet* ‘will give a whistle.1SG/3SG’ (semelfactive suffix *-nu-*)	stem
b.	*sviščú/svistít* ‘whistle.1SG/3SG’ (suffix *-ē-*)	post-stem
c.	*sviščú/svíščet* ‘whistle.1SG/3SG’ (suffix *-a-/-i-*)	1sg

(25a) is expected, given the accented and dominant *-e-*

(25c), with the accented *-a-/-i-*, suggest that the root is unaccented

Why is there stem stress with the post-accenting semelfactive suffix *-nu-* in (25b)?

There are also cases where the opposite happens:

(26) *-plak-* ‘cry’

a.	*pláču/pláčet* ‘cry, sob.1SG/3SG’ (suffix *-a-/-i-*)	stem
b.	*vsplaknú/vsplaknʲót* ‘will give a sob.1SG/3SG’ (semelfactive suffix *-nu-*)	post-stem

And this is the expected pattern:

(27) *-blest-* ‘shine’

a.	*bleščú/blestít* ‘shine.1SG/3SG’ (suffix *-ē-*)	post-stem
b.	*blesnú/blesnʲót* ‘will twinkle.1SG/3SG’ (semelfactive suffix *-nu-*)	post-stem
c.	*bleščú/bléščet* ‘shine.1SG/3SG’ (suffix *-a-/-i-*)	1sg

Some stems will have idiosyncratic stress patterns

Nothing to do

It is not surprising that the combination of a stem with a thematic suffix can be unpredictable from the semantic standpoint, why should it be phonologically predictable?

6. APPENDICES

6.1. Athematic verbs

Three morphemes: the stem, the tense suffix and the agreement ending

Main generalizations in this section (Halle 1973, Melvold 1990, etc.):

- **past-tense variability indicates a stem with no accentual specification**
- **the present-tense suffix is accented**

Highlighting indicates the positions of the underlying accents

(28) Accentual interaction in athematic (√-T-ϕ) verbs

		accented PAST-FSG	**unaccented** PAST-PL	**accented** PRESENT-3SG
a.	accented: *-lez-* 'climb'	*léz-l-a*	*léz-l-i*	*léz-e-t*
b.	post-accenting: *-nes-* 'carry'	*nes-l-á*	*nes-l-í*	*nesʲ-ó-t*
c	unaccented: *-klad-* 'put'	*kla-l-á*	*klá-l-i*	*kladʲ-ó-t*

Diagnostics for stem accentuation: accentual invariability across the entire paradigm suggests an accented or post-accenting stem, variable stress is indicative of an unaccented stem

The behavior of stress in the **past** tense indicates that:

- the past-tense suffix carries no accentual specification
- the feminine singular ending -a is accented, all others are unaccented
- we can therefore establish the accentual properties of the stem

Two accentual classes can be detected in the **present**: those with stress on the stem and those with stress on the present-tense suffix, so **the present-tense suffix is accented**

Certain things swept under the rug here: (a) the existence of the fourth class of verbs, with retraction in the past, (b) two roots with variant stress placement in the present (*-mog-* 'be able', *-im-*/*-nʲa-* 'have'), (c) accentuation of the infinitive and passive past participle (PPP) suffixes, which we will return to later; (d) the interaction of the stem-final consonant with the past-tense suffix *-l-*, as in (28b)

6.2. Nominal retraction

Halle 1973, 1975, 1997, Melvold 1990: the so-called **neo-acute stems** require a rule of stress retraction (269 nouns in the plural, some adjectives in the long form, etc.)

Given that all non-nominative plural endings are accented (Halle 1997:282), why are some post-accenting stems stressed on the last syllable of the stem?

(29)

unaccented ending	accented ending	(accented) plural ending	
kolbas-ú	kolbas-á	kolbás-ami	a-stem
kazak-ú	kazak-á	kazák-ami	ŭ-stem
koles-ú	koles-á	kolʹés-ami	o-stem

Melvold 1990:27: there are 20 unaccented nominal stems subject to the same pattern:

(30)

unaccented ending	accented ending	(accented) plural ending	
dúš-u	duš-á	dúš-ami	a-stem
ózer-o	–	ozʲór-ami	o-stem

Melvold 1990:26-28 discusses post-accenting nouns with retraction in the singular

Also discusses short-form and long-form adjectives and our variant pattern

Analyses also provided in Revithiadou 1999 and Dubina 2012

Key feature: morphological juxtaposition of singular and plural (Alderete 1999, Butska 2002)

There is no obvious contrast here, except for the phonological one, and retraction should not fail before vocalic suffixes, this makes no sense

6.3. More on lexical unstressability in Russian

Often unstressability results from independent properties of the segment or morpheme:

- Some vowels are inherently unstressable (e.g., *i* before *y* & schwa in Passamaquoddy (LeSourd 1988:71-74))
- Some prefixes in Squamish are not part of the same prosodic domain as the root and the suffixes (Dyck 2004:165-171)

Bogomolets 2020: unaccented suffixes in Choguita Rarámuri are lexically unstressable and this unaccentability cannot be motivated by the properties of the vowel or of the morpheme

Russian provides **local independent evidence for unstressability**

Russian yers come in two varieties: those that when lowered (ĭ→ĕ, ŭ→ŏ) can be stressed and those that cannot

Background: **Russian has retraction in nouns** (section 6.2): the accent introduced by the plural ending surfaces on the syllable before it (Halle 1973, 1975, 1997, Melvold 1990, etc.):

(31) baseline:
- a. unaccented stem: *-zerkal-* 'mirror': nom.sg: *zérkalo*, nom.pl: *zerkalá*
- b. post-accenting stem: *-božestv-* 'deity': nom.sg: *božestvó*, nom.pl: *božestvá*
- c. retracting stem: *-koles-* 'wheel': nom.sg: *kolesó*, nom.pl: *kolʲósa*

Sometimes this stem-final syllable contains a yer, which cannot bear stress (and is deleted in the surface representation anyway), and then the accent moves one more syllable to the left:

(32)
- a. *-kolĭc-* 'ring': nom.sg: *kolʲcó*, nom.pl: *kólʲca*
- b. *-pisĭm-* 'letter': nom.sg: *pisʲmó*, nom.pl: *písʲma*

The genitive plural is also a yer, so cannot bear stress and the accent surfaces before it:

(33)
- a. *-zerkal-* 'mirror': nom.sg: *zérkalo*, nom.pl: *zerkalá*, gen.pl: *zerkál*
- b. *-božestv-* 'deity': nom.sg: *božestvó*, nom.pl: *božestvá*, gen.pl: *božéstv*
- c. *-koles-* 'wheel': nom.sg: *kolesó*, nom.pl: *kolʲósa*, gen.pl: *kolʲós*

However, the genitive plural yer triggers the lowering of the stem-final yer (ĭ→ĕ):

(34)
- a. *-kolĭc-* 'ring': nom.sg: *kolʲcó*, nom.pl: *kólʲca*, gen.pl: *koléc*
- b. *-pisĭm-* 'letter': nom.sg: *pisʲmó*, nom.pl: *písʲma*, gen.pl: *písem*

In (34b) the lowered stem-final yer cannot be stressed (for whatever reason) and stress shifts one syllable further to the left

Conclusion: there are lexically determined cases where a syllable cannot bear stress

It is unlikely that the difference between (34a) and (34b) is due to the fact that a potential suffix is detectable in (34b): while both *remeslό* 'trade' and *polotnό* 'cloth' are historically complex, in contemporary Russian they are perceived as underived (and *kolʲcό* 'ring' is actually also historically a derived noun)

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