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SECONDARY IMPERFECTIVES AND W-EPENTHESIS IN RUSSIAN

Puzzle: The crucial insight of Jakobson 1948 explains verbal stem alternations in Russian as in (1)-(3) between the present and the past by arguing that the longer of the two stems is the underlying one: stem-final vowels and glides are deleted before vocalic suffixes (present: ĕ) and consonantal suffixes (past: l), respectively.

(1)	a.	taj-e-t	(2)	a.	**gnij**-ó-t	(3)	a.	**živ**'-ó-t
		melt-TH-PRES-3SG			rot-PRES-3SG			live-PRES-3SG
		melts			*rots*			*lives*
	b.	**taj-a**-l-a		b.	gni-l-a		b.	ži-l-a
		melt-TH-PAST-F			rot-TH-PAST-F			live-TH-PAST-F
		[she] melted			*[she] rotted*			*[she]lived*

Thus, in Jakobson's view (see also Lightner 1965, 1967, Flier 1974a, b), the stem-final glides above (/j/ in (1)-(2), and /w/, surfacing as [v] in (3)) are underlying and their distribution thus should be unpredictable. An alternative analysis (DeArmond 1975, Gladney 2013) is that the glides are epenthetic and verbal roots like those in (2) and (3) are vowel-final.

Proposal: We will argue that the glide-insertion and glide-formation processes independently necessary for the derivation of secondary imperfectives not only correctly predict the choice of the w-glide in the relevant stems (4), but also account for verbal stems with the alternation *-uj-/-ov.a-* (Lightner 1965:36) and the verbalizing suffix *-uj-/-ov.a-* (Melvold 1990:258-265).

(4)   3 stems in -w-: a. *-žɨv-/-žɨ-* 'live', b. *-plɨv-/-plɨ-* 'swim', c. *-slɨv-/-slɨ-* 'be known as'

Secondary imperfectives: The secondary imperfective (SI) suffix in Russian takes the thematic suffix *–a[j]-* and has three allomorphs: the lexically conditioned *-Ø-/-v-* (with the glide absent when the stem ends in a consonant) and the Elsewhere *-ɨv-*. Glide-final verbs form secondary imperfectives in the same way: with the allomorph *-v-*:

(5)	a.	do.gni-v-aj-e-t	(6)	a.	do.ži-v-aj-e-t
		finish.rotting-IMPF-TH-PRES-3SG			finish.living-IMPF-TH-PRES-3SG
		s/he is finishing to rot			*s/he is finishing living*
	b.	do.gni-v-a-l-a		b.	do.ži-v-a-l-a
		finish.rotting-IMPF-TH-PAST-F			finish.living-IMPF-TH-PAST-F
		she was finishing to rot			*she was finishing living*

Suppose the stem-final glide is underlying. What is the underlying form of the SI suffix?

(a) If the SI suffix is null (Flier 1972, Coats 1974, Feinberg 1980), *-w-* in (5) can only result from the change of the stem-final [j] into [w] before the [a] of the thematic suffix. However, elsewhere such a change doesn't happen, as shown by stems like *pj-an* 'drunk' and the lack of j-to-w change in declension (e.g., *gnoj-a* 'pus.GEN', *gnij.enij-a* 'putrefaction-GEN', same root as (2)). There is also no phonological connection to the *-ɨv-* allomorph.

(b) It is highly unlikely to be *-w-* underlyingly (pace Enguehard 2017), because it is accented and dominant (7). In view of its intervocalic position, option (c) is more likely.

(7)   a.   root -bol'- 'pain' + accented thematic suffix   -v-
       za.bol-*é*-l-a 'become sick.PRF-TH-PAST-F'
       za.bol-e-v-*á*-l-a 'become sick-IMPRF-TH-PAST-F'

       b.   accented root -sɨp- 'pour'   -Ø-
       ras.s*ɨ́*p-a-l-a 'strew.PRF-TH-PAST-F'
       ras.sɨp-Ø-*á*-l-a 'strew-IMPRF-TH-PAST-F' (note the stress shift)

(c) The *-Ø-/-v-* allomorph is underlyingly vocalic: an underspecified round vowel *-ø-* (Halle 1963), the back yer *-ŭ-* (Matushansky 2009), *-ɨ-* or *-u-*. There is no independent evidence for any of these vowels turning into the glide [w] after both [j] (5) and [w] (6).

Concluding that stem-final glides are not underlying and the stems in (4) are [ɨ]-final, we appeal to the rule (8) inserting the glide [w] intervocalically after a back vowel ([ɨ]). This rule has been proposed by Matushansky 2009 in order to derive the productive SI allomorph *-ɨw-* from the underlying *-ŭ-* transformed into [ɨ] by a special tensing rule (not given here). (8) correctly predicts that [w] will be inserted in [ɨ] stems, that is, in all and only stems in (4), on the assumption that the root vowel in *-žɨv-/-žɨ-* 'live' is the surface [ɨ] rather than the [i] indicated by standard orthography (which forbids the use of the grapheme ы ([ɨ]) after [š] and [ž]). The fact that w-final athematic verbs number only three (vs. 15 j-final ones) is naturally explained by the limited conditions on w-insertion.

(8) $\emptyset \rightarrow$ [–syll, –cons, +back] / ŭ, ɨ __V   w-insertion

j-final roots: The analysis above says nothing about the origins of [j], which may therefore be underlying or derived. Flier 1974b, espousing Jakobson's hypothesis, asserts that while [j] and [w] alternate in function of the immediate environment, the underlying representations of glide-final roots can still be established. For instance, for two verbal roots, *-bj-/-bi-* 'beat' and *-šj-/-ši-* 'sow', the underlying representations would have to be, respectively, *-bĭj-* (because of the nominal *boj* 'battle') and *-šĭw-* (because of the nominal *šov* 'seam').

A more careful examination of Flier's evidence shows, however, that the root yer is retained in the w-final *šov* 'seam', which is not the case in the j-final *boj* 'battle' or *poj.l.o* 'mash, hog-wash' from *-pj-/-pi-* 'drink'). Comparing the oblique *šva* 'seam.GEN' vs. *boja* 'battle.GEN', we must assume /šɨ/ as the underlying representation for the former (derived by backing) and *-bo-* and *-po-*, for the latter (derived by the more frequent lowering rule, see Lightner 1968 – none of these ablauts is synchronically productive, though motivated historically). Regarding other cases of w-final variants of j-roots in derivation (e.g., *razbivnoj* 'dismountable' vs. *razbojnyj* 'related to robbery') we propose with Flier 1974a that they are based on SI-stems.

Impact: Our view does not undermine Jakobson's one-stem generalization, as stems that are glide-final on the surface are still derived. The distribution of [w] and [j] is explained not by a conversion rule (contra Flier), but by complementary conditions on insertion/glide-formation.

Further evidence: As discussed in Schuyt 1990:401ff, the *-ɨw-* allomorph of the SI suffix is historically related to the Slavic denominal verbalizing suffix *-uj-/-ov.a-*. Assuming that both are base-generated as /ŭ/ explains the forms *-ov-* in Czech and *-uv-* in Ukrainian and makes it easy to derive verbal stems with the alternation *-uj-/-ov.a-* (Lightner 1965:36) as well.

Indeed, extending the domain of (8) to [ŭ], which is the [–ATR] counterpart of [ɨ], is trivial. Instead of a tensing rule, operative in deriving [ɨ] in the *-ɨw-* allomorph from the underlying [ŭ], a lowering rule can be used to derive [o] from the same source (9); the present-tense [uj] is derived as in Melvold 1990:258-265.

(9)   *-uj-/-ov.a-* stem, past

$$[[[[\text{torg-ŭ}]_1\text{-a}]_2\text{-l}]_3\text{-a}]_4$$
                                                cycle 2: w-insertion
$$[[[\text{torg-ŭw-a}]_2\text{-l}]_3\text{-a}]_4$$
                                                cycle 2: ova-yer-lowering (instead of tensing)
$$[[[\text{torg-ow-a}]_2\text{-l}]_3\text{-a}]_4$$
                                                post-cyclic: v-formation
$$[[[\text{torg-ov-a}]_2\text{-l}]_3\text{-a}]_4$$

In addition, this proposal derives the unique Russian verb with the secondary imperfective in *-uj-/-ov.a-* (*minovat'* 'to pass, escape', from *minut'*) and suggests a potential explanation for bi-aspectual verbs derived by the same suffix (see Janda 2007, Itkin 2014).

Extensions: The same assumptions will derive the allomorphy of the genitive plural augment *-ov-*/*-ej-* (Halle 1994, Halle and Nevins 2004), the special secondary imperfectives *-da.v-* 'give', *-sta.v-* 'stand' and *–zna.v-* 'know', and stress shifts in all the paradigms above.

Finally, we will address the question of j-final verbs with the thematic suffix *-a-* (e.g., (1a)) and argue that the stem vowel not only influences the choice of the stem-final glide but also correlates with the presence of a theme.

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