## DERIVING THE RUSSIAN SECONDARY IMPERFECTIVE

**Background**: The vast majority of Russian verbal stems are imperfective by default. Adding an Aktionsart-changing prefix renders a stem perfective (see Vinogradov 1952, Forsyth 1970, Švedova 1970, Smith 1991, Garde 1998, etc.). A prefixed verb can be made imperfective (the so-called "secondary imperfective") by adding -yv-(1), -v-(2), or zero (3), in function of the morpho-phonological environment. (-a(j)-i) is the default first conjugation marker.)

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root -pis- 'write'
                                                                                                  -yv-
            pisAt' 'to write'
      a.
      b.
            podpisAt' 'to sign PRF'
            podpIsyvat' 'to sign IMPRE'
      c.
(2)
      root -bol'- 'pain'
                                                                                                   -V-
            bolEt' 'to be sick'
      a.
            zabolEt' 'to become sick PRF'
      b.
            zabolevAt' 'to become sick IMPRF''
      c.
                                                                                                  -()-
(3)
      root -syp- 'pour'
            sypat' 'to pour (a non-liquid)'
      b.
            rassypat' 'to strew PRF'
            rassypAt' 'to strew IMPRF' (note the stress shift)
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The projection of an aspectual morpheme in such secondary imperfectives as (3) is shown by a variety of phonological changes that it triggers: the so-called "imperfective lengthening" in the root (4), (5), and (for second conjugation stems) the so-called "transitive palatalization" of the final consonant of the stem (5), (6). Since no meaning difference is detectable between the various secondary imperfectives, we conclude that the secondary imperfective suffix does have a zero allomorph.

```
root -s<del>i</del>p- 'sleep'
             spAt' 'to sleep'
      a.
             dospAt' 'to finish sleeping PRF'
      b.
             dosypat' 'to finish sleeping IMPRF'
      c.
      root -korm- 'feed'
(5)
             kormīt' 'to feed'
      a.
             otkormIt' 'to fatten PRF'
      b.
             otkarmlivat' 'to fatten IMPRF'
      c.
(6)
      root -gruz- 'freight'
             gruzīt' 'to load'
      a
      b.
             razgruzīt' 'to offload PRF'
             razgruzhAt' 'to offload PRF'
      c.
```

**Stress**: Further evidence for the existence of a zero allomorph comes from its effect on stress. While the -yv- allomorph is pre-accenting, both the -v- and  $\emptyset$  allomorphs are post-accenting. Importantly, the first conjugation marker -a(j)- cannot be held responsible for the stress shift.

```
podpisAt' 'to sign PRF' → podpIsyvat' 'to sign IMPRF'
(7)
           a.
                       podrulit' 'to drive up _{PRF}' \rightarrow podrulivat' 'to drive up _{IMPRF}' otkormIt' 'to fatten _{PRF}' \rightarrow otkArmlivat' 'to fatten _{IMPRF}'
           b.
           c.
                       dospAt' 'to finish sleeping PRF' → dosypAt' 'to finish sleeping IMPRF'
           d.
                       razgruzīt' 'to offload _{PRF'} \rightarrow razgruzhAt' 'to offload _{PRF'}
           e.
(8)
           accented prefix vy-
                       pisAt' 'to write' \rightarrow vYpisat' 'to write out <sub>PRF</sub>' \rightarrow vypIsyvat' 'to write out <sub>IMPRF</sub>' spAt' 'to sleep' \rightarrow vYspat'sja 'to sleep <sub>COMPL.PRF</sub>' \rightarrow vysypAt'sja 'to sleep <sub>COMPL.IMPRF</sub>' rullt' 'to drive (a car)' \rightarrow vYrulit' 'to drive out <sub>PRF</sub>' \rightarrow vyrUlivat' 'to drive out <sub>IMPRF</sub>'
           a.
           b.
           c.
                       gruzīt' 'to load' → vYgruzīt' 'to load out PRF' → vygruzhAt' 'to load out PRF'
           d.
```

The choice of the allomorph is determined by both the prefix and the verbal stem, as shown by the existence of pairs like (9), which share the same stem but have different prefixes. It is

generally assumed that -v- is the allomorph of zero after a stem ending in a vowel (Flier 1972, Coats 1974, etc.).

(9) root -kid- 'throw'  
a. po-: pokInut' 'abandon 
$$_{PRF}$$
'  $\rightarrow$  pokidAt' 'abandon  $_{IMPRF}$ ' -a(j)-  
b. o-pro-: oprokInut' 'turn over  $_{PRF}$ '  $\rightarrow$  oprokIdyvat' 'turn over  $_{IMPRF}$ ' -yva(j)-

Several proposals attempting to unify some or all of the allomorphs phonologically have been advanced (see Flier 1972, 1974, Coats 1974, Coats and Lightner 1975, Feinberg 1980, Garde 1998, among others). Improving on these analyses, I propose that the allomorphy is due to the underlying form of the suffix and requires no particular readjustment rules. Following the historical development of Russian, I suggest that synchronically, the secondary imperfective suffix is underlyingly [v:] (a long lax u), fitting into the vowel system of Russian as the third yer. (An analysis with a non-long [v] is not presented here to simplify the exposition.)

**Table 1: Russian vowel system** 

		[-back]	[+back]	
		[-round]	[-round]	[+round]
[-ATR]	[+hi]	[I]	[ <del>I</del> ]	[ʊ]
	[-hi]	[٤]		[ŏ]
[+ATR]	[+hi]	[i]	[ <del>i</del> ]	[u]
	[-hi]	[e]	[a]	-

The surface realization of the secondary imperfective suffix depends on its environment. As a result of (i), [v] becomes a glide after a vowel (thus accounting for the distribution of the -v-allomorph; as is well-known (see Coats and Harshenin 1971, Lightner 1972 and Kavitskaya 1999, among others), the Russian [v] is underlyingly a glide).

(i) 
$$[v] \rightarrow [-syll] / V$$
 \_\_  $[w]$ -glide formation

As the cyclic degemination rule (ii) follows the glide formation rule (i), it applies only if  $[\upsilon]$  follows a consonant, forcing the creation of a  $[\mathtt{t}\upsilon]$  sequence. The  $[\upsilon]$  of this sequence will be subject to the rule (i) at the next cycle and the back yer  $[\mathtt{t}]$  will become  $[\mathtt{y}]$  as a result of the "imperfective lengthening" discussed above, thus yielding the surface form  $-y\nu$ -; the process is generally (though not always) extended to the root.

Finally, to obtain the zero allomorph we make recourse to the distinction between the cyclic and the post-cyclic components of Russian phonology: if, when combined with -u:-, a given prefix-stem combination yields a non-cyclic node (see Matushansky 2002), neither of the two cyclic rules apply – instead, the -u:- suffix is deleted at the next cycle by the rule (iii), which removes a vowel before another vowel (Jakobson 1948).

(iii) 
$$V \rightarrow \emptyset / V$$
 Jakobson's vowel truncation

**Advantages**: (1) **The stress patterns** follow automatically once we recall that an accent on a yer is subject to the rule of stress retraction (Lightner 1972, Halle 1994), which places the accent on the preceding syllable; naturally, if the offending vowel is deleted, the accent either shifts to the next syllable (accented, since *-aj-* is generally accented) or disappears. (2) That **the -yv- allomorph is the default one** follows from the fact that the non-default form results from marking the Asp node under consideration as non-cyclic. (3) The account is consistent with the historical development of the Slavic [y] from the Indo-European [u:] and can explain the u/y/o alternation in a few roots of Modern Russian (*-dux-/-dyx-/-dox-, -sux-/-syx-/-sox-*).

**Further details**: The proposed treatment of the secondary imperfective suffix demonstrates once again that abstraction and cyclic derivation are essential for Russian phonology. I will also discuss the implications of this analysis for other instances of the surface [y], as well as for the description of yers as short (rather than lax), and the treatment of the "exceptional" secondary imperfectives detailed in Levin 1977 and Garde 1998.