

Frequency and markedness in Russian verbal stress

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This presentation focuses on distribution and variation of the stress patterns in Russian nonpast verbal inflection. The stress patterns are classified into the following three types (cf. Zalizniak 1980: 80):

- (1) a. Stress is fixed on stems through the inflection ('a').
- b. Stress is fixed on suffixes through the inflection ('b').
- c. Stress is placed on suffixes in 1sg and imperatives, while on stems elsewhere ('c').

The pattern 'a' has been formalised as accented stems (Idsardi 1992: 123–127; Alderete 1999: 74–76). As for the other patterns, Idsardi (1992) assumed unaccented stems along with the accented suffixes, and attributed the pattern 'c' to a specific rule.

What is notable is that the pattern 'c' is particularly widespread among verbs whose infinitives end in /-itʲ/ (-*umʲ*), as exemplified in (2). Note that unstressed /o, e/ emerge as [a, i], respectively.

- (2) palaz-ítʲ 'to put': palaz-ú (1sg) vs. palóz-it (3sg); palóz-im (1pl) etc.
- kurʲ-ítʲ 'to smoke': kurʲ-ú (1sg) vs. kúrʲ-it (3sg); kúrʲ-im (1pl) etc.

It has also been documented that some *umʲ*-verbs that have been classified as the pattern 'b' in the orthoepy (e.g. fklʲuf-ítʲ 'to turn on') are often pronounced as the pattern 'c' (Vorontsova 1996: 311–312; Sharapova 2000: 133–155; among others).

In this work, I reinvestigated the distribution of the stress patterns. The data were collected from Zalizniak's (1980) grammatical dictionary. To exclude derived verbs, the target was narrowed down to verbs with monosyllabic stems. I also consulted Liashevskaja and Sharov's (2009) frequency dictionary (*Частотный словарь современного русского языка на материалах Национального корпуса русского языка*: <http://dict.ruslang.ru/freq.php?>) to consider frequency effects. The data were divided according to the frequency ranking of verbs. The result is summarised in Table 1.

Freq. rank	Pattern 'a'	Pattern 'b'	Pattern 'c'	Sum
1-2500	34 (25.3%)	38 (28.4%)	62 (46.2%)	134
2501-5000	29 (21.5%)	63 (46.7%)	43 (31.9%)	135
5001-7500	32 (27.8%)	56 (48.7%)	27 (23.5%)	115
7500-10000	32 (35.6%)	43 (47.8%)	15 (16.7%)	90
Total	252 (29.2%)	406 (47.2%)	203 (23.6%)	861

Table 1: Distribution of the stress patterns among *umʲ*-verbs

As seen, frequent verbs tended to follow the pattern 'c', while infrequent ones the pattern 'b'. In particular, among 2500 most frequent verbs, the number of the pattern 'b' was significantly smaller ($\chi^2 = 15.826$, $p < .001$) and that of 'c' larger ($\chi^2 = 29.405$, $p < .001$) than in the total distribution.

The current results and the variations attested suggest that the pattern 'c' is the default or

unmarked stress paradigm for *umb*-verbs. Since the stems are unaccented by default, the underlying suffix accent emerges: the 1sg and imperative suffixes are accented, while others are unaccented. When given suffixes are unaccented, the word stress is determined by a certain morpho-phonological principle (cf. Alderete 1999: 60–64).

By contrast, the pattern ‘b’ is marked. In the framework of Optimality Theory (OT), Ito and Mester (1995) argues that marked patterns are preserved by the relevant faithfulness constraints among ‘peripheral’ lexical items, while eliminated among ‘core’ items. While these authors applied this model to loanword phonology, I suggest that frequently used words come to avoid some marked patterns. In OT terms, the post-stem accent is preserved by higher-ranked faithfulness constraint specific to ‘peripheral’ (infrequent) items, whereas the same kind of constraint is ranked lower than the markedness constraint (tentatively assumed as *SUFACC) for ‘core’ (frequent) items. Note that the faithfulness constraint on fixed accent (e.g. 1sg suffix) dominates *SUFACC regardless of the lexical property. See Table 2 for the demonstration.

		FAITH _{periphery}	*SUFACC	FAITH _{core}
e.g. /gnʲivʲi-ít/ (rank: 9415) ‘anger (3sg)’	gnʲévʲi-it	*W	L	
	☞ gnʲivʲi-ít		*	
e.g. /fklʲutʲf-ít/ (rank: 362) ‘turn on (3sg)’	☞ fklʲútʲf-it			*
	fklʲutʲf-ít		*W	L

Table 2: OT analysis of 3sg verbal accent

In summary, I assert that the stress shift in Russian nonpast *umb*-verbs should be regarded as ‘the emergence of the unmarked’. Frequently used verbs are categorised as ‘core’ lexical entries, avoiding marked patterns like post-accenting stems.

References:

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