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On Mobile Vowel Stress in Russian, as Influenced by Stem-final Consonants

I. This paper deals with the stress of stem-final mobile vowels in Russian, in forms which have desinential or predesinential stress. In the case of both desinential and predesinential cases, the stress can be either on the mobile vowel (MV) itself or on the previous syllable, i.e. in pre-MV position. Examples of this situation can be found in table 1. Many categories can have either MV stress or pre-MV; e.g. *орёл/бобёр*, with MV, compared to *у́гол/у́зел*, with pre-MV. The origin of the present-day mobile vowel can either be an original jer, or a secondary vowel which developed in a word with a consonant cluster which did not have an original jer vowel. These categories have not stayed separate, so that nowadays *орёл* and *бобёр* behave alike, even though one had a historic jer and the other did not.

In spite of the lack of difference between original jers and inserted vowels today, I assume that this difference was originally responsible for the difference between MV and pre-MV stress. Thus, if there was a jer vowel in the stem-final syllable at the time of retraction from a final jer or at the time of predesinential stress assignment, I assume that this jer became stressed, as is the case in modern *орёл/козёл/котёл*. On the other hand, if the stress was assigned before a jer existed, and a vowel was later inserted, the stress would have been in the pre-MV position, as in *у́зел/у́гол/у́горь*.

Table 1. Shows two structural types: stems with an original mobile vowel and stems with a secondary vowel that does not derive from an original jer. For modern stress assignment, this origin is irrelevant in most cases.

		Desinential		Mobile		Predesinential	
		Original jer	Inserted V	Original jer	Inserted V	Original jer	Inserted V
Masculine	MV-stress	орёл козёл котёл овёс овён шатёр	бобёр ого́нь				
	Pre-MV		у́гол у́голь у́горь у́зел			гла́зок зу́бок ро́жек сапо́жек	

Feminine	MV-stress	бадéй кишóк ладéй мошóн скамéй статéй	кабарóг кочерёг	копён серёг	деревéнь досóк	овéц свинéй семéй	земéль
	Pre-MV				дéнег	вётел мётел	блёсен вёсен дёсен сóсен тю́рем
Neuter	MV-stress	деревéц питéй телéц				гумён колéц крылéц селéц сердéц яи́ц	
	Pre-MV		мáсел			бёрец брёвен волóкон кóпий озёрец óкон пи́сем полóтен рýжей сёдел сýкон	бёдер, вёсел, вёдер зёрен скрёбел стёбел стёгон стёкол чи́сел я́дер
Masculine Adjective	MV-stress	дурён силён умён хмелён чудён	остёр хитёр шустёр				
	Pre-MV	бóлен вóлен дóлжен лёгок рáвен свéтел тёмен	тёпел чёрен				

In Feldstein (1979: 37-8), I suggested that there were two basic structural types — one type with the stress assigned at a point when a mobile vowel already appears in the stem, and another type in which the stress assignment occurs before the mobile vowel is introduced into the stem. Due to later reshuffling, these two categories do **not** reflect the original historical categories of stems with original

jers and secondarily inserted vowels. My original table (1979: 38) for synchronically deriving MV and pre-MV stress, was as follows:

Table 2. Rules which apply to the two mobile vowel subtypes, i.e. for synchronically deriving MV and pre-MV stress.

	I. Basic # type	II. Inserted # type
Rule ordering:	os'#l-Ó	uzl-Ó
1. Stress retraction	os'#, l-Ø	úzl-Ø
2. #-insertion with palatalization	————	úz'#l-Ø
3. #-realization and Ø-deletion	os'ól	úz'ol
4. Vowel reduction	as'ól	uz'il

II. Garde's basic rule for MV and pre-MV stress.

Garde's 1968 paper on the topic of mobile vowel vs. pre-mobile vowel stress was unknown to me when I wrote Feldstein (1979) on a similar subject. I would like to review some important aspects of Garde (1968). The most important rule states that nouns of the desinential stress pattern regularly stress the mobile vowel, but that those with the predesinential stress pattern can stress **either** the mobile vowel or the vowel which precedes the mobile vowel, depending on the phonological structure of the stem-final. As illustrated in table 3, Garde phrases this (2006: 142-3) by stating that an underlying mobile /e/ vowel has predesinential stress directly on the mobile vowel (e.g. *семéй, земéль, овéц*), while an underlying mobile /o/ has predesinential stress on the pre-mobile vowel (e.g. *сóсен, вёсен*).

Table 3. Garde's Rules for Mobile Vowel Stress.

1. In the case of desinential accent, a stressed mobile vowel is the rule. E.g. *орёл* is regular, but *у́зел* is irregular.	2. In the case of pre-desinential accent (such as in the feminine and neuter plural), a basic mobile vowel /e/ (usually followed by /c/, /j/, /n'/, or /l'/) is stressed, but a basic mobile vowel /o/ (usually followed by a hard consonant) has stress on the preceding vowel (except for *сестёр*). E.g. basic /e/ *овéц/колéц*, but basic /o/ *мётел/бёдер*.

I would prefer to state the second rule in terms of the stem-final consonant, without regard to whether the mobile vowel itself is an underlying /e/ or /o/, since it turns out that Garde posits an /e/ or /o/, based on the following consonant. In other words, in predesinentially stressed subparadigms (such as the feminine and neuter plural, e.g. *óвцы, овéц*; *кóльца, колéц*) with stem-final **soft** consonants (functionally including the affricate /c/), the mobile vowel is stressed. However, in predesinentially stressed subparadigms with **hard** consonant stem-finals, the vowel preceding the mobile vowel (i.e. the pre-mobile vowel) is stressed (e.g.

со́сны, *со́сен*; *бёдра*, *бёдер*). In any case, if one could predict mobile vowel or pre-mobile vowel stress by the final stem consonant, the dual scheme I proposed in table 2 would be unnecessary, since the stress on mobile vowels could be correctly placed by means of a rule which referred to the stem-final consonant. Of course, exceptions to Garde's rule (such as *сестёр*, *гумён*, *у́зел*, *у́гол*, *у́горь*, etc.) would need to be individually marked as irregular. In my further discussion, I would like to elaborate on the idea of predicting mobile vowel stress, based on the nature of the stem-final consonant, especially within the class of mostly feminine nouns in *-a*, in order to demonstrate that the behavior of mobile vowel stems with hard and soft stem-final consonants may have been influenced by the behavior of other nouns which lacked a mobile vowel, which led to the establishment of the pattern of mobile vowel stress before hard, but pre-mobile before soft.

III. a-noun feminine plural stress of the type AP B.

Most AP B nouns with hard stem-finals (e.g. *жена́*, *колбаса́*) have predesinential stress and a zero in the genitive plural. Very few feminine or a-nouns have retained their original AP B end-stress in the plural, and the nouns in this exceptional subset are often distinguished by two traits: a soft or husher stem-final consonant and a non-zero genitive plural, which has borrowed the *-ej* ending from the originally *i*-stem noun class. In other words, virtually all feminine nouns of AP B have modified something in the plural: generally speaking, in the case of stem-final hard consonant stems, the desinential stress was modified to predesinential; conversely, in the soft consonant type, the end-stress was more likely to be retained, but the genitive plural was modified from zero to non-zero. Some linguists (cf. Bulaxovskij 1954: 150 and Jakobson 1984: 138) have emphasized that the change of feminine desinential to predesinential occurred to increase the opposition of the genitive singular to the nominative-accusative plural (e.g. *жены́* vs. *жёны*, instead of **жены́* in both cases; in the words of Bulaxovskij, it is the tendency "отличить именительный-винительный множ. ч. от родительного единственного"), although others (Voroncova 1979: 32) disputed the Gsg vs. Npl opposition as the basis for the new plural stress. However, predesinential stress was not always carried out in the feminine soft type, and these two forms could remain syncretic (e.g. Gsg and Npl *западни́*). Therefore, I think it is important to establish the motivation for most feminine plural AP B nouns to either change their stress to predesinential or to take on a non-zero genitive plural. I would suggest that the reason for this might be the a-nouns' avoidance of the morphophonemic pattern of a nominative vs. genitive case opposition, in which one form has a morphophonemically stressed zero, which retracts to the stem-final syllable, opposed to another with end-stress, as we see in the singular of masculine AP B nouns, e.g. *сто́л* vs. *стола́*. This is avoided in *жёны* vs. *жён*, by having a plural columnar stress, with the same vowel stressed in nominative and genitive cases. It

is avoided in many soft feminine AP B plurals by the non-zero genitive, e.g. каланчи́ vs. каланче́й, which also avoids the *стóл/столá* type opposition.

Thus, my hypothesis is that there has been a general avoidance of desinential stress in AP B (plural) subparadigms which use the zero genitive. The main motivation for this is to clearly separate the morphophonemic pattern of an AP B Nsg zero and a Gpl zero. In other words, the pattern AP B *стóл/столá* now becomes bound to the Nsg zero, rather than the Gpl zero. As a consequence, when the *стóл/столá* pattern potentially could occur in the AP B plural, it was modified in many ways (see table 4):

1. Hard feminine a-nouns with AP B mostly adopted columnar predesinential stress. In non-mobile stems, columnar and predesinential were compatible (e.g. *колбáсы*, *колбáс*; cf. neuter *веретёна*, *веретён*). When a mobile vowel was present, columnar and predesinential were not compatible, which posed a dilemma for the system. The columnar principle won out in instances of mobile vowels (*мётлы*, *мётел*; cf. neuter *бёдра*, *бёдер*). Rare exceptions (*сёстры*, *сестёр*) reflect the choice of predesinential over columnar.

2. Soft feminine a-nouns mostly retained desinential stress, but changed the equation by getting rid of their zero desinence and using the *-ej* desinence of the old *i*-stem feminine type, thus eliminating the *стóл/столá* pattern in a different way (e.g. *клешни́*, *клешне́й*; *каланчи́*, *каланче́й*). However, when a mobile vowel was present, the solution was always to retain the zero-ending in the Gpl, in spite of the soft consonant type. How then did such nouns avoid the *стóл/столá* pattern? In the Gpl, either stress would differ from the *стóл/столá* pattern, since the Gpl has an extra syllable. Soft mobile vowel stems generalized mobile vowel stress, since it both avoided the *стóл/столá* pattern and also brought them closer to the other soft feminine AP B stems, which all had a post-columnar stress in the Gpl.

Table 4. Avoidance of the "stól/stolá" pattern in AP B plurals, primarily feminine a-nouns.

Hard-stem AP B solution		Soft-stem AP B solution	
Non-Mobile hard vowel stems:	Mobile vowel hard stems:	Non-Mobile soft vowel stems:	Mobile vowel soft stems:
Adopt **columnar** predesinential stress in plural.	Adopt **columnar** stress in entire plural, which is also predesinential, except for the Gpl, where it is antepredesinential.	Maintain desinential stress, but eliminate the zero form by using -éj as the Gpl ending.	Opposite behavior of mobile vowel hard stems: favor a **non-columnar** predesinential Gpl instead of a columnar type. Most stems end in /j/, producing a surface similarity to the -éj ending in

			the zero-ending of the Gpl.
E.g. *колба́сы, колба́с; веретёна, веретён*	E.g. *мётлы, мётел; бёдра, бёдер* (Irregular Gpl: *сестра́, сестёр*; neuter *гумно́, гумён*)	E.g. *клешня́, клешне́й; каланча́, каланче́й*	E.g. *семья́, семе́й; судья́, суде́й; свинья́, свине́й*

The neuter plural appears to depart from feminine plural in some important ways:

1. The neuter plural can maintain a desinential plural, when paired to a singular initial stress (of type AP C). E.g. *слова́, сло́в*. This occurs in spite of the similarity to the *сто́л/стола́* pattern, since the latter is of the AP B type, with singular end-stress (cf. also *колбаса́, веретено́*). This contrasts to feminine, which maintains plural desinential stress only marginally and with structural changes.

2. Neuter predesinential plurals with a soft mobile vowel stem, in contrast to feminines, favor columnar over predesinential stress, except for most nouns with the -/c- suffix. E.g. *ру́жей, ко́пий, ко́пий, коле́ц*; but *бе́рец*.

IV. The entire group of feminine a-nouns with plural desinential stress bears further scrutiny, since one wonders why the feminine desinential class did not completely become predesinential. The structural groups of nouns with feminine plural desinential stress can be found in table 5.

Table 5. Classes of feminine/a-nouns with desinential plurals.

1. Final -CC'- and -C', with -ej- Gpl. Stem-final softs and hushers, except -j.	2. Stems with stressed mobile vowel and stem-final hard or /j/, with Gpl zero-ending.	3. Stems with zero Gpl, ending in hard consonant or /j/.
баржа́, -е́й	киш/ка́, киш/о́/к-Ø	A. Stem-final consonant matches the non-zero Gpl ending (/v/, /f/, /j/):
бахча́, -е́й	кабар/га́, кабар/о́/г-Ø	
епанча́, -е́й	княж/на́, кнюж/о́/н-Ø	
западня́, -е́й	корч/ма́, корч/е́/м-Ø	булава́, була́в-Ø
каланча́, -е́й	кочер/га́, кочер/ё/г-Ø	графа́, гра́ф-Ø
карча́, -е́й	кай/ма́, каём-Ø (кай/о́м-Ø)	ендова́, ендо́в-Ø
квашня́, -е́й	ектень/я́, ектен/й/й-Ø	люфа́, люф-Ø
клешня́, -е́й	куть/я́, культ/е́/й-Ø	жне́я, жне́й-Ø
левша́, -е́й	лядь/я́, лад/е́/й-Ø	коле́я, коле́й-Ø
паша́, -е́й	мош/на́, мошо́н-Ø	лития́, литы́й-Ø
паранджа́, -е́й	стать/я́, стат/е́/й-Ø	пале́я, пале́й-Ø
пешня́, -е́й	скуфь/я́, скуф/е́/й-Ø	суле́я, суле́й-Ø
праща́, -е́й	скамь/я́, скам/е́/й-Ø	шле́я, шле́й-Ø
стезя́, -е́й	туль/я́, тул/е́/й-Ø	

ступня́, -е́й ходжа́, -е́й		B. Avanesov (1983): "род. мн. не употребляется": глиста́, дуда́, егоза́, зуда́, киса́, кума́, мечта́, сума́, тамада́, фата́, юла́, ягá --- C. Avanesov (1983): "род. мн. несвободно": зурна́, карга́, киста́, клюка́, плева́, пустельга́, тамга́, тахта́, чалма́ --- D. Anomalous/irregular: кобура́, кобу́р конура́, конýр пелена́, пелён острога́, остро́г пиала́, пиа́л стопа́, сто́п черта́, че́рт (Zaliznjak (1967: 166) states that *кайла́*, *тура́*, *графа́*, *острога́*, *егоза́*, *пиала́*, *кобура́*, *конура́* occur with predesinential plurals in non-literary speech.)

Note that each group has a particular way of avoiding the usual *сто́л/стола́* pattern. The first column, with soft stem-finals, regularly uses a non-zero genitive, making this class follow the masculine plural desinential pattern, rather than the feminine, where the non-zero genitive permits desinential stress through the plural subparadigm (and the entire paradigm, since the singular also has end-stress). The second column consists of mobile vowel stems which have not taken on predesinential stress, in contrast to feminine nouns *семья́/судья́/свинья́*. In spite of their zero genitive plural, their mobile vowel allows them to differ from the *сто́л/стола́* pattern, since their zero-forms contain the same number of syllables as their non-zero form. In other words, there are two syllables in both *статьи́* and *стате́й*, in contrast to the pattern of *сто́л/стола́*, in which one form exceeds the other by one syllable. Nouns in the third column are those which have neither a non-zero Gpl *-е́й* ending (like column 1) nor a mobile vowel (like column 2). Several such nouns (column 3, part A), nevertheless, have a surface similarity to non-zero genitives in their Gpl form, since their stem-final consonant (/j/, /v/, /f/) coincides with one of the two non-zero Gpl desinences of Russian. In many of these cases, the zero genitive deceptively resembles a non-zero genitive (e.g. *ендов/жней*). (Xazagerov's (1973: 67) strange statement that *свинья́* has the synchronic ending "*-ей*," rather than zero, might serve as evidence of the confusion of the stem-final pre-zero /ej/ (and /ov/, /of/) with the actual genitive plural endings /ej/, /of/, for Russian speakers.) The next two groups (column 3, B and C) do not contain final /v/, /f/ or /j/, but have a Gpl which Avanesov's orthoepic diction-

ary (1983) considers either impossible or unlikely. Lastly, there is a list of anomalous, desinentially stressed plurals which cannot be explained easily, some of which have been noted by Zaliznjak (1967: 166) as occurring with predesinential stress in the non-literary language.

V. Our survey has shown that Garde's division of mobile vowel predesinential stems reflects two different strategies for dealing with original desinential stress in the plural. The mobile vowel soft-stem category (*земéль/семéй*) avoids full columnar stem-stress, linking it to the desinential soft types. In a sense, they use their extra stem vowel to remain different from the hard columnar predesinentials (e.g. *колбасá*); the mobile vowel hard stems, on the other hand, do join the *колбасá* type (e.g. *блёсен*).

Thus, in most cases, the behavior is predictable and almost all of these types can be subsumed under a single structural AP B type. The exceptional forms for which this is not possible are the desinential plurals with no special structural differences from the predesinentials, such as *статья́* and *княжна́*, which must be regarded as exceptions to the rule.

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