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A NOTE ON THE ACCENTUAL PATTERNS OF THE RUSSIAN NOMINAL DECLENSION*

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The studies of Russian phonology conducted within the framework of generative grammar, especially those of T.M. Lightner, have demonstrated conclusively the need for recognizing as independent entities in underlying representations, the non-tense [i] [u], i.e., the entities that traditionally have been referred to as reduced vowels or *jers*. These entities never appear directly in the phonetic output, but rather are either lowered to [æ] [ɔ] or are deleted.¹ The lowered *jers* merge with lax [ɔ] [æ] from all other sources and are subject to the same rules as the former. I shall assume, then, that the grammar of Russian includes two rules that have among others the effects of (1) and (2) below.

- (1) $\begin{bmatrix} +\text{syl} \\ -\text{tense} \end{bmatrix} \rightarrow \begin{bmatrix} -\text{high} \\ +\text{low} \end{bmatrix} / \text{---} [-\text{syl}] \begin{bmatrix} +\text{syl} \\ +\text{high} \\ \text{o} \\ -\text{tense} \end{bmatrix}$
- (2) $\begin{bmatrix} +\text{syl} \\ -\text{tense} \\ +\text{high} \end{bmatrix} \rightarrow \emptyset$

Forms such as [bánkə] [bánək] "jar," nom. sg. and gen. pl., respectively, derive from underlying representations in the manner shown in (3).

(3)	bánukā	bánuku	underlying representation
	---	bánoku	rule (1)
	bánkā	bánək	rule (2)
	bánkə	bánək	by other rules not discussed here

From among the many arguments for the introduction of rules (1) and (2) in a synchronic grammar of Russian I shall cite here only the fact that these rules reveal the hidden regularity of certain declensional paradigms often regarded as deviant by grammarians. E.g., Isačenko (1962) treats the declension of the nouns *voš'* "louse," *lož'* "lie," *rož'* "rye," *ljubov'* "love" and *cerkov'* "church" separately because, these

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¹ The need for including the *jers* in a morphophonemic transcription of modern Russian has been recognized by students for quite a long time. One can find these *jers* represented by # in the transcriptions of Stankiewicz's important study (1954) and in other Harvard dissertations of that era; cf., e.g., Klagstad (1954); the same device is utilized by Worth (1968).

“verlieren das flüchtige -o- in allen Kasus, mit Ausnahme des (Nom. und—M.H.) Instr. Sing.” (p. 124) This, however, is a straightforward consequence of the fact that the desinences of the latter two cases begin with a *jer* (nom. sg.—/i/, instr. sg.—/ijou/) and thus provide an environment in which rule 1 must apply. In all other cases, the desinences begin with a full vowel and rule 1 does not apply to the stem; instead it is deleted by rule 2. This is shown in (4).²

(4)	vuši (nom.)	vuši (gen.)	vušijou (instr.)
Rule 1	võši	—	võšijou
Rule 2	võš	vši	võšjou
by rules not given here	võš	vši	võšju

A second important result of recent studies derives from a suggestion made by Jakobson (1965). In discussing the prosodic pattern of Common Slavic, Jakobson proposed that “in any . . . word of two or more syllables, any syllable . . . can carry the phonemic high pitch. Apparently all of the syllables of the same word which precede the phonemic high pitch display redundant high pitch. The rest of the syllables are low pitched.” (p. 147) In other words, Jakobson proposes that much as in Japanese the word in Slavic is divided into two parts—an initial high pitched portion and a final low pitched portion. The conventional stress mark, therefore, signalizes the location of the tonal break (*Tonbruch*), which as Isačenko and Schädlich have shown plays such an important role in the perception of stress. It follows logically from this hypothesis that if the vowel conventionally regarded as bearing the stress is deleted, then the stress is shifted one syllable towards the beginning of the word.³ This can be seen quite graphically in a word such as [sinók] “little son” which has the derivation (5).

(5)	sinúkú	underlying form
	sinókú	Rule 1
	sinók	Rule 2
	sinók	by rules not given here

The accent mark on the vowels in (5) and hereinafter indicates high pitch in line with Jakobson’s suggestion quoted above, and the last (i.e., right most) vowel bearing high pitch is the one conventionally said to bear stress. (See also the footnote on p. 174)

Given the two rules (1) and (2) and Jakobson’s convention on stress marking it can

² A makron over the letter indicates that the vowel is tense, the absence of the makron, that it is lax. [i] is an unrounded high back vowel, symbolized by *jery* in the traditional orthography.

³ Worth (1968) notes that “the grammar will have to contain a rule to the effect that stressed morphophonemic ‘# loses its stress to the left (my emphasis—M.H.) . . . whenever it is not realized as a full vowel” (p. 55). In the system implicit in Worth’s study there is no reason to expect that when stressed *jer*s are deleted, the stress moves to the left. The deletion of the *jer* could equally well bring about a move of the stress to the right, or, for that matter, result in a stressless word. The convention on the representation of stress proposed by Jakobson that has been outlined above, on the other hand, predicts that when the last high pitched vowel is deleted, stress will automatically move to the left. It, therefore, provides motivation for what otherwise is just another fact about Russian.

be shown that in the substantive declension there are only a small number of distinct accentual patterns which, moreover, reflect reasonably natural subdivisions of the material.⁴

The simplest type of accentual pattern, which I propose to designate here as type I, is the one where the stress remains on the stem in all forms of the singular and plural. E.g.

		Singular	Plural
(6)	N.	rák "crayfish"	ráki
	G., Acc.	ráka	rákov
	D.	ráku	rákam
	Instr.	rákom	rákami
	Prep.	o ráke	o rákax

All three declension classes show this accentual pattern; e.g., it is the pattern of nouns such as *lípa* "linden tree," *bolóto* "swamp," *nít* "thread."

An obvious question that at present I am unable to answer satisfactorily is what accounts for the placement of the stress on different syllables of the stem. Examination reveals that the majority of stem stressed nouns take the accent either on the initial or on the pre-desinential syllable. E.g., *úžin* "supper," *góvor* "dialect," *kómnata* "room," *ráduga* "rainbow," *práвило* "rule," etc., have initial stress; *stakán* "glass," *barán* "sheep," *sobáka* "dog," *čerepáxa* "turtle," *kopýto* "horseshoe," etc., have pre-desinential stress. There are, however, numerous stem stressed nouns with stress on other syllables; e.g., *gostínnica* "hotel," *mešóček* "little bag," *urjádnik* "police sergeant," *sovreménnik* "contemporary," *čerémuxa* "wild cherry tree," *soderžátel* "landlord," etc. It is obvious even from these few examples that the location of stress must in large measure be determined by the nature of the suffixes and other considerations of a morphological character. Their precise nature, however, is not fully known at present.

With certain minor exceptions, to be discussed directly, nouns that are stem stressed maintain the stress on the same vowel throughout the paradigm. Exceptions to this are the nouns *ózero*~*ozéra* "lake" and *známja*~*znaména* "banner," and the polysyllabic stems that form the plural with the special pre-desinential affix /ij/, as, e.g., *dérevo*~*derév'ja* "tree." The nouns *ózero* and *známja* have initial stress in the singular and pre-desinential stress in the plural.⁵ The alternations of the *dérevo*~*derév'ja* type

⁴ In the discussion below I disregard the loc. sg. in *-u* and *-i* as well as the marginal plurals of *ljudi* "people" and *deti* "children." I also disregard questions of palatalization, the monophthongization of certain diphthongs and the changes in vowel quality occasioned by various phonological rules. I assume that all these phenomena are somehow properly accounted for in a grammar and can, therefore, be taken for granted.

⁵ These alternations are apparently of quite recent origin. According to Kiparsky (1962) pp. 243, 254, they are first attested in the XVIIIth century. Prior to that the plural had desinential stress.

also represent shifts from initial to predesinential stress. Because rule 2 applies to all plural forms of these nouns, the stress naturally appears on the pre-affixal vowel; i.e., /dérévijā/→/dérévjā/.⁶ The number of nouns in this category is quite small; it includes: *derév'ja* "trees," *kolós'ja* "ears (of grain)," *obód'ja* "rims," *polóz'ja* "runners (on sleds)," *kamén'ja* "gems," *povód'ja* "reins (of horse)," *volós'ja* "thick hair," *korén'ja* "culinary herbs," *ugól'ja* "embers."

The stress remains on the same vowel in the underlying representation of the nouns *zaem* "loan" and *naem* "rent". As noted by Stankiewicz (1954) and recently by Worth (1968) these two nouns have in all of their forms the stress on the predesinential vowel.⁷ The shift of the stress to the initial syllable in the oblique cases is due to the operation of rule 2. This can readily be seen in the derivations (7) of the nom. sg. and gen. sg. forms:

(7)		zájimu	zájímā
	Rule 1	zájému	—
	Rule 2	zájém	zájmā
	Rules not given	zajóm	zájma

The appearance of stem stress in the singular is independent of that in the plural. As a matter of fact, all four logically possible types of stress pattern are amply attested in the declension. In addition to the type I just reviewed which has stem stress in both singular and plural, there are nouns of type II with stem stress in the singular, and desinential stress in the plural; type III with desinential stress in the singular and stem stress in the plural; and type IV with desinential stress in both singular and plural. With a few minor exceptions, which shall be disregarded here, when stress falls on the desinence, it is the first or only vowel of the desinence that receives the stress.

It is, therefore, natural to propose that nouns in Russian are subcategorized with regard to the two features *stem stress sg.* and *stem stress pl.*, as shown in (8).

(8)		stem stress sg.	stem stress pl.
	Type I	+	+
	Type II	+	—
	Type III	—	+
	Type IV	—	—

Examples. Type I. Masculine: *rák* "crayfish," *tést'* "father in law;" neuter: *kréslo* "chair," *zдание* "building"; feminine: *lípa* "linden tree," *mýsl'* "thought." (Additional examples cited above.) Type II. Masculine: *sád* "garden," *učitel'* "teacher"; (also

⁶ In forming these plurals with the help of the affix /ij/ some nouns require predesinential stress as in the example cited above, others require desinential stress; *muž'já* "husbands," *druz'já* "friends." The former have in the gen. pl. the desinence /ovu/ or /evu/; the latter (with the exception of *zjat'* "son in law") have /u/. This fact explains why we have the accentuation *derév'jev* but *mužéj*.

⁷ Stankiewicz's formulation (see *op. cit.*, p. 107n.) is that "the stress falls on the final stressable syllable of the stem;" Worth's formulation is much closer to the one proposed here.

vólk "wolf" (see below p. 172)); neuter: *zérkalo* "mirror," *móre* "sea," *vrémja* "time"; feminine: *nóč* "night," (see below p. 172). Type III. Masculine: *líst* "leaf," (very few examples); neuter: *čisló* "number," *kolesó* "wheel," feminine: *travá* "grass," *kolbasá* "sausage," (also *vodá* "water" (see p. 172 below)). Type IV. Masculine: *stól* "table," *býk* "steer," (also *kón* "horse") neuter: *serebró* "silver," *vorovstvó* "theft"; feminine: *xvalá* "praise," *kočergá* "stove poker" (also *ruká* "hand," *bloxá* "flea," (see p. 172 below)).

Further subcategorizations are required to account for the placement of stress on a particular stem vowel and to handle those nouns that retract the stress from desinence to stem in a single case form only (acc. sg. and/or nom. pl.). The first of these subcategorizations will obviously not apply only to nouns of Type IV, for these have the stress on the desinence in all forms. The question of stress location on the stem was briefly raised in the discussion of nouns in Type I (see p. 168 above). It was noted that in the majority of cases stress is placed on either the pre-desinential or the initial syllable of the word, and the same observation holds for nouns of Type II and III. It has been pointed out to me by Horace G. Lunt, however, that in nouns of Type II which form their nom. pl. with stressed *-á* there are no instances of pre-desinential stress in the sg.; instead, one finds either initial stress as in *górod* "city", or nonpre-desinential stress as in *učitel'* "teacher." This observation accounts for an asymmetry between the nouns of Type II and Type III. As noted by Worth (1968) stress shifts exactly paralleling those of (7) are found also in nouns of Type III. Thus, parallel to the apparent stress shift in *zaëm záima* (cf. (7)), we find in Type III noun alternations such as *sestër sěstry* "sisters," or *koléc kól'ca* "rings," *jaíc jájca* "eggs." These alternations are accounted for by assuming pre-desinential stress in the underlying representations as shown in (9) and (10).

(9)	séstíru	kólícu	jájícu
(10)	séstírī	kólícā	jájícā

As in the case of *zaem* (cf. (7)) rule 1 lowers the pre-desinential high vowels only in (9), thereby maintaining the stress on that syllable. Since the pre-desinential *jers* are not lowered in (10), they are deleted by rule 2, and the stress is shifted automatically to the preceding syllable. Since, as noted above, nouns of Type II do not include examples where stress falls on the pre-desinential syllable it is not to be expected that parallel alternations will be found in nouns of this class, and this fact accounts for the asymmetry referred to above.

In the nouns discussed up to this point the stress did not shift from one syllable within the singular or plural paradigm, except in cases where the shift was due to the operation of rule (2). There are nouns, however, where the stress is retracted from desinence to stem within the singular or plural paradigm. Such shifts occur only in acc. sg. forms with the *u*-desinence and in nom. pl. forms with the *i/y*-desinence.

This retraction of the stress to the stem can logically affect only nouns that do not have

stem stress. Hence nouns of type I are excluded here in principle. Nouns of type II can be subject to retraction only in the singular, whereas nouns of type III can be subject to retraction only in the plural. Finally, nouns of type IV can be subject to retraction in either or both the singular and plural.

Examples of stress retraction in nouns of types II and III are to be found in (11).

(11)	nosý	vólki	travá	vodá
	nosóv	volkóv	travý	vodý
	nosám	volkám	travé	vodé
	nosámi	volkámi	travú	vódu
	o nosáx	o volkáx	travój	vodój
			o travé	o vodé

It was noted above that nouns of type II do not generally include feminines. The exception to this are nouns of the type *noč'* "night" which have stem stress in the singular and in the nom. pl., but desinential stress in the oblique cases of the plural. The accentual pattern of *noč'* is, therefore, like that of *volk* (cf. (11)).

Examples of stress retraction in nouns of type IV are:

(12)	kočergá	ruká	bloxá
	kočergí	rukí	bloxí
	kočergé	ruké	bloxé
	kočergú	ríku	bloxú
	kočergój	rukój	bloxój
	o kočergé	o ruké	o bloxé
	kočergí	ríki	blóxi
	kočérĕg ⁸	rúk	blóx
	kočergám	rukám	bloxám
	kočergámi	rukámi	bloxám
	o kočergáx	o rukáx	o bloxáx

We note that of the logically possible four subtypes only three are attested; there is no noun that has desinential stress in all forms except in the acc. sg. ending in *-u*. This well known fact of Russian grammar will have to be captured by a special redundancy rule.

To reflect the facts just outlined I propose to introduce two additional morphological

⁸ I have chosen the word *kočerga* "stove poker" because its accentuation is discussed in M. Zoščenko's well-known story "Kočerga" *Rasskazy i povesti* 1923-56 (Sovetskij pisatel', Leningrad, 1958), pp. 157-161. In the story, the preferred form of the gen. pl. is given as *kočerg*, although the form cited above is qualified as being "also admissible." Both the dictionary of Ušakov (1935) and that of Avanesov and Ožegov (1955) list, however, only the latter form. I have followed these authorities because of the weight of their academic credentials. Formally the dispute revolves around the question whether the underlying form of the stem is /kočerig/ or /kočerg/. Empirically, as Zoščenko himself remarks, it is rather a question of how soon technological progress will make stove poker obsolete.

features: *stress retraction sg.* and *stress retraction pl.* As already noted, the former feature can be distinctive only with regard to nouns that are [–stem stress sg.], i.e., types II and IV, while *stress retraction pl.* can be distinctive only with regard to nouns that are [–stem stress pl.], i.e., types III and IV. I shall assume that nouns of type I and III are redundantly specified as [–stress retraction sg.] and nouns of type I and II are redundantly specified as [–stress retraction pl.].

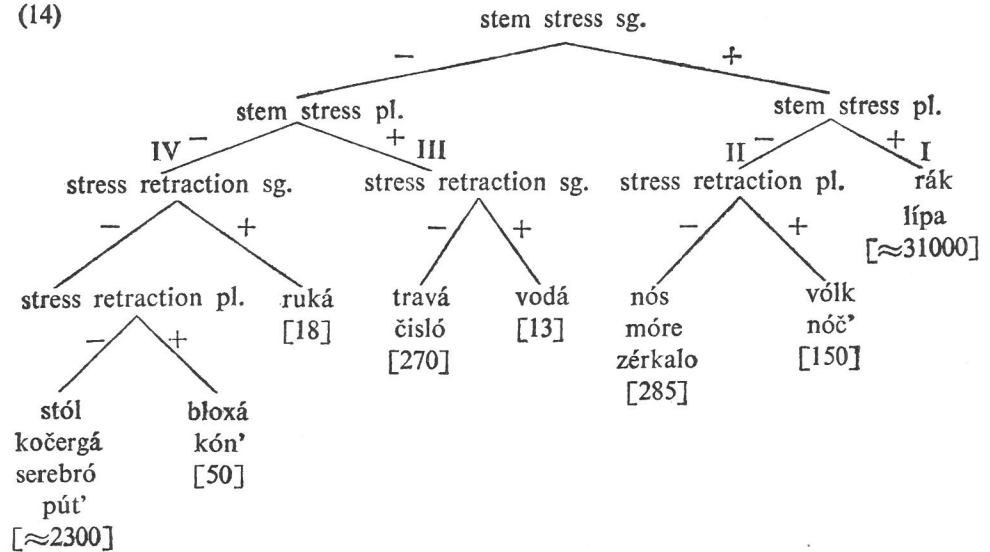
While the features *stress retraction sg.* and *stress retraction pl.* combine freely with nouns belonging to the category [–stem stress sg.] or [–stem stress pl.] respectively, they are subject to the restriction that in nouns of type IV [+stress retraction sg.] implies [+stress retraction pl.]. More formally this might be expressed by a redundancy rule (13).

$$(13) \left[\begin{array}{l} \text{–stem stress sg.} \\ \text{–stem stress pl.} \\ \text{+stress retraction sg.} \end{array} \right] \rightarrow \text{+stress retraction pl.}$$

In sum, we have shown that the accentual patterns of the declensional paradigms of Russian require a categorization with regard to four binary features. The feature *stress retraction sg.* can not affect nouns that are [+stem stress sg.] and the feature *stress retraction pl.* cannot affect nouns that are [+stem stress pl.]. This means that no more than nine categories can be created with the help of the four features proposed. One of these nine categories however is ruled out by virtue of the redundancy rule (13). Russian nouns must, therefore, be subcategorized into eight classes in order to account for the accentual patterns found in the declension. This subcategorization is shown in (14).*

* Note incidentally that if Jakobson's proposal is adopted for standard Serbo-Croatian, one difference between Serbo-Croatian and Russian would be that in the former it is not the last, but rather the one but last vowel bearing high pitch that is conventionally said to bear the stress.

(14)



Figures in parentheses indicate the total number of nouns of each type in the language. They are taken from Zaliznjak (1967) pp. 172-3.

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