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THE RUSSIAN SYSTEM OF STRESS*

Отцу моему Константину Исааковичу Шапиро
к девяностолетию

Russian stress is a puzzle. Numerous investigators have tried their hands at unraveling it, starting around the beginning of the last century. Studies carried out in the context of a general inquiry into the history of Slavic accentuation have predominated, and the purely synchronic focus on Russian stress is largely a product of the last forty years. Reliable monographic descriptions of the patterns of Russian stress now exist (e.g., Red'kin 1971, Striček 1966, Fedjanina 1982), as do historical treatments based on the (re)examination of Old and Middle Russian accented texts (e.g., Kolesov 1972, Xazagerov 1973, Zaliznjak 1985).

Despite this progress, with its main emphasis on descriptive refinement and comprehensiveness, the basic puzzle remains unsolved. Why does accentual mobility in declension and conjugation continue to exist and to thrive in certain word classes? Whereas the Common Slavic patrimony, with its phonologically based patterns of accentual alternations, can be looked to as a remote source of the persistence of mobility throughout the history of Russian despite the early loss of tone and length distinctions, what is to explain the pervasive patterns of stress "shifts" in the contemporary language? All sorts of ingenious answers to these questions have been devised by modern investigators, particularly in the wake of transformational-generative grammar, but on balance the functional system of Russian stress still awaits explanation.

Of course, certain facts are clear. First, Russian stress is part of the morphology and morphophonemics of Russian and is basically not motivated by the phonology (while having phonological consequences, namely vowel reduction).[1] Second, though stress is in principle free to occur on any syllable of a word, certain restrictions are known to obtain whereby the morphophonemic or morphological structure of a given word, or its membership in a particular form class or semantic category, narrow the range of possible accent positions. Third, not all accentual phenomena are equally motivated: in quite a number of cases (including whole classes of words) there is no motivation in terms of the contemporary system of Russian stress. Items of this sort have to be learned by speakers individually as "traditional" holdovers from an earlier system. They are, of course, also prime candidates for change.

So much is common knowledge. A major advance beyond this stage of

research was made by Zaliznjak (1977), who uncovered the existence of a
"pragmatic factor" in the placement of stress on masculine substantives
(with implications beyond this locus). Although it is well known that the
grammars of speakers of the same language are not perfectly continuous
(owing to differences in age, education, experience, and stylistic preference
among others), the systematic consequences of these pragmatic discontinui-
ties had never been adequately delineated and assessed before Zaliznjak's
work.

His analysis starts with the recognition that not all vocabulary items have
equal status as to familiarity in the lexica of individual speakers. Roughly,
a given word may be "habitual" (privyčnoe) or "alien" (čuždoe) to a
particular individual, with a graded continuum of familiarity spanning
the distance between these two polar nodes: from the completely usual,
habitual, and familiar to the completely unusual, unfamiliar, and alien –
while remaining a recognizable part of the Russian vocabulary.

As analyzed by Zaliznjak (1977, 74), habitual vocabulary for an adult
speaker includes the common everyday lexicon, as well as words that are
characteristic of a speaker's workplace and social circle ("microcollective").
On the other hand, vocabulary items that are associated with foreign
countries or past epochs, or with the social and professional milieux that
are alien to a given speaker's experience, cluster nearer the unfamiliar node
of this pragmatic continuum. For all speakers, moreover, items from the
grandiloquent, bookish, and archaizing sectors of the vocabulary fall under
the rubric of the unfamiliar, as do all words that are learned for the first
time. In the latter case, naturally, some items never cease to be unusual or
unfamiliar (in the sense of this dichotomy), whereas many (if not most),
once learned, pass over into the opposite category, at differing rates and
levels of secure learning dependent on factors in the communicative context.
Zaliznjak concludes (1977, 75) by pointing out that this division into
habitual and alien vocabulary is different in extent for each adult speaker
and is subject to change over his lifetime.

For purposes of Russian stress the single most important overall conse-
quence of the pragmatic factor is the subsumption of a particular item in
the speech of an adult under either the fixed or the mobile pattern of stress.
Alien items have fixed stress, whereas habitual items are generally mobile
(Zaliznjak 1977, 77).[2] For instance, among non-professionals the normal
stress of špríc 'syringe', massáž 'massage', trjúm 'hold of a ship', and
bócman 'boatswain' is fixed on the stem. But in the speech of those persons
for whom these words are part of their everyday experience in the workplace
the stress pattern is mobile: nom pl špricý, massaží, trjumá, bocmaná
(Zaliznjak 1977, 77).[3] Such "professional" stresses spread to the speech
community as a whole when they are perceived to be authoritative or to

carry prestige.[4] Indeed, desinential stress in the entire pl subparadigm is singled out by Zaliznjak (1977, 78) as "the fundamental and most universal mode of expressing the familiarity of a word" where masc substantives are concerned.

As important as the effect of the pragmatic factor is, there are other, strictly structural rather than communicative, principles that inform Russian stress but have yet to be delineated.

(1) Stress has a semiotic (sign) value that is of the same kind as for all other units and their combinations in language, viz. a markedness value. Specifically, the incidence of stress has the value unmarked (or is an unmarking), whereas the absence of stress has the value marked (or is a marking).

(2) Stress placement makes reference to syllables within stems and to desinences. More precisely, the stem-final syllable has the semiotic value marked, as do syllables constituting a desinence; all other syllables are normally unmarked.[5]

(3) Accentual values and syllabic values are complementary to each other. In alignment with the chiastic semiosis that is characteristic of morphophonemics generally (cf. Shapiro 1980, 89–90; also 1983, Ch. iv), the unmarked value for stress is coherent (congruent) with the marked value for syllable position in the word, and vice versa.

(4) Fixed stress, i.e., stress fixed on the same syllable of a word throughout the (sub)paradigm, is evaluated as marked, while mobile stress is evaluated as unmarked.[6]

(5) With the exception of cases involving derivational suffixes, unmarked stems (= unstressed stems and/or stems with stress on any syllable other than the stem-final) are subject to mobility, whereas marked stems (= stems with stress on the stem-final syllable) have fixed stress.

(6) The types and range of mobility are defined in scope by the markedness relations obtaining between the three genders. Specifically, mobility is least restricted in masc substantives, most restricted in fem substantives, and of intermediate restrictedness in neuters. This isomorphism between prosodic patterns and grammatical categories is an icon of the markedness values of the genders vis-à-vis each other: masc is unmarked vis-à-vis fem and neut, neut being unmarked vis-à-vis fem.

Beyond these six, the following two more or less generally recognized principles must be taken into account in explaining Russian stress:

(7) The hierarchically central case and number are nom and sg, in the first instance, and gen and pl otherwise. What this means for stress is that the nom and gen sg are determinative of the remainder of the paradigm (with certain exceptions); and that in the absence of a sg subparadigm (i.e.,

in pluralia tantum) the nom and gen pl forms fulfill this function. This situation is not merely a descriptive formula but an immanent fact of the structure of the Russian grammatical system.[7]

(8) As clarified by Zaliznjak (1977, 78–81), in monosyllabic masc stems the stress pattern of the sg subparadigm is basically determined by the categorial meaning of the word: non-numerable or mass nouns (see fn. 8 below) have fixed stress on the stem (except for those with Loc_2 in -ú), whereas numerable or count nouns have stem stress in the nom and/or acc sg only, and desinential stress elsewhere. Hence the difference in stress between čáj/čája 'tea' and nóž/nožá 'knife', according to Zaliznjak (1977, 78–79), is due to the semantics of the stem, although (as he himself acknowledges) this "rule" has some exceptions – in both directions: mass nouns may have desinential stress in the sg, and count nouns may have stem stress. But such exceptions will only occur in those cases where an old word has continued its traditional stress into the modern era – a stress that is at odds with the contemporary principle of a semantically based pattern in the sg for monosyllables. Words that have entered the language since the establishment of the principle involved will automatically conform to it. For instance, the word xip, which resulted from the Russification of the English borrowing xíppi 'hippie', immediately acquired stol-type stress among those persons for whom it was a habitual word (Zaliznjak 1977, 81). Of course, the traditional stress pattern need not be at variance with the synchronic one, and in such instances no change in stress occurs. On the other hand, where there is a conflict, the conditions for change are present in the system, and ultimately a change in pattern may occur (usually preceded by a stage characterized by stress doublets). In the long run, the number of traditionally stressed words will diminish, and the number of words instantiating the synchronic principle will grow, constrained chiefly by the frequency of a traditional stress (high frequency archaisms tend to resist modernization throughout the grammar, including prosody). Words like boj 'battle', verx 'top', and zad 'rear' were of the stol type in Old and Middle Russian; conversely, gvozd' 'nail', kit 'whale', and list 'sheet' were stem stressed in the sg up to the modern period. To clinch things, there is not one instance in which the directionality of any potential changes implied by the contemporary principle (as a teleological terminus ad quem) would be contradicted: no old word which is a mass noun in contemporary Russian has changed from stem stress to the stol type, and no old count noun has changed from the stol type to stem stress (Zaliznjak 1977, 83).[8]

We now come full circle by examining the main ways in which the pragmatic factor alters the workings of the principles just outlined. The focus for illustrative purposes is on mascs (particularly monosyllables), since my discussion is based on Zaliznjak (1977); but this is not to limit the

general effect of the pragmatic factor. Basically, familiarity is correlated with a mobile stress pattern, unfamiliarity with a fixed pattern – regardless of gender.

Corresponding to the dichotomy between familiar and unfamiliar items, there are two ways in which the pragmatic factor affects stress mobility. First, within certain specifiable constraints words that are immobile in normative Russian have a tendency to have mobile stress in less regulated sociolinguistic contexts, namely in colloquial or professional speech. As Zaliznjak points out (1977, 92), these two settings are the ones in which normative considerations are weakest. For example, the sports term *gol* 'goal' has a normative stress that is fixed on the stem-final syllable in the sg and is desinential in the pl. But increasingly in the jargon of athletes and sports fans this word appears with mobile stress of the *stol* type.

Conversely, words which have this type of mobile stress may lose it and switch to the fixed type when they become unfamiliar. Before the Revolution *paž* 'page' was a familiar word because it denoted the title of a courtier as well as a student of the famous military school for aristocrats in St. Petersburg, *Pažeskij korpus* 'Corps of Pages'. The word now exists only as a historical term (including the medieval variety of page deriving from French *page*). In the speech of those individuals who are unaware of or (subconsciously) choose to ignore the traditional stressing of this word, it enters the unfamiliar category and concomitantly displays fixed stem stress throughout the paradigm (Zaliznjak 1977, 93).

This sort of violation of the norm is reflected in the emergence of stresses like *króby* 'baskets' instead of *korobá, čány* 'vats' instead of *čaný*, etc., at least as individual accentual phenomena. When episodic deviations from the norm become widespread enough to constitute social data, this development is testimony to the status of the particular items at stake: a shift from the familiar to the unfamiliar category is accompanied by a change in the traditional stress pattern. In contemporary normative Russian the generally productive spread of *-á* as the desinence in nom/acc masc can be undone, for instance, by just such a change in status: older *getmaná* 'hetmans' has gone back to *gétmany, d'jakoná* 'deacons' is being eclipsed by *d'jákony, pisarjá* 'amanuenses' by *písari*, etc. (Borunova *et al.* 1983, s.v.; cf. Zaliznjak 1977, 93; Shapiro 1985a). Mobile stress of one sort or another recedes and is supplanted by fixed stress. No such change occurs, notably, in the absence of pragmatic conditioning.

I would now like to set out the whole system of Russian substantival stress and to show how the principles enumerated above render the patterns coherent. Beginning with mascs the first thing that needs to be mentioned is the possible patterning (range) of stress (cf. Zaliznjak 1977, 77).

(1) Fixed stem stress is possible regardless of the position of the stress

in the nom sg, i.e., no matter how far removed it is (including zero) from the stem-final syllable (e.g., *spór* 'argument', *kátoržnik* 'convict', *avtóbus* 'bus', *parovóz* 'locomotive').

(2) Mobile stress of the *stol* type can occur only when the stress in the nom sg is on the stem-final syllable (with the exception of a handful of items like *úgor'/ugrjá* 'eel, blackhead', i.e., with a vowel/zero alternation in the stem).[9]

(3) Mobile stress of the *kólokol/kolokolá* 'bell' or the *bál/balý* 'fancy dress ball' type can only occur when the stress of the nom sg is on a syllable other than the stem-final (Shapiro 1985a).[10] In the case of monosyllables, therefore, the apparent ambiguity of the nom sg as to whether stress is stem-final or stem-initial (more properly: non-stem-final) is really not one at all. Once the rest of the paradigm is involved in the determination of stress, the apparent ambiguity disappears. Fixed stress is compatible only with an evaluation of the syllable's status as stem-final; mobile stress is compatible only with its evaluation as non-stem-final. Practically, this differentiation is at the bottom of the difference between patterns of the *spor* type, on one hand, and those of the *bal* type, on the other.

A further characterization has to do with the direction in which the stress shifts within the paradigm. In mascs projection of stress is regular, retraction irregular, as between the sg and pl subparadigms. That is to say, given mobility of stress, the latter regularly goes from left to right in a word, and only irregularly from right to left. Morphologically, this means that the normal kind of mobility involves a shift from stem to desinence (not vice versa).

The following are examples (in grammatical transcription) of the regular mobile patterns. I omit the second loc *-ú*, retractions of stress onto prepositions, and patterns like *vólk | vólka | vólki | volkóv* 'wolf' that are unproductive. Stress in the peripheral pl cases (i.e., dat, instr, and loc) always coincides in productive patterns of the masc and neut with that of the nom pl:

	Sg	Pl
Nom	bók-∅ 'side'	bok-á
Gen	bók-a	bok-óv
Nom	mást'er-∅ 'master'	mast'er-á
Gen	mást'er-a	mast'er-óv
Nom	škaf-∅ 'cupboard'	škaf-í
Gen	škáf-a	škaf-óv
Nom	póp-∅ 'priest'	pop-í
Gen	pop-á	pop-óv
Nom	topór-∅ 'axe'	topor-í
Gen	topor-á	topor-óv

The possibility of retraction within the pl subparadigm exists (e.g., *sapóg | sapogá | sapogí | -sapóg* 'boot', *čulók | čulká | čulkí | čulók* 'stocking', etc.), but this is clearly on the periphery of stress phenomena in the masc, as is the retraction of the type *glazók | glazká | glázki | glázok* 'little eyes'. Similarly words of the *gvózd' | gvozdjá | gvózdi | gvozdéj* 'nail' type (of which there are no more than five in standard Russian; see Zaliznjak 1967, 158) involve a retraction. Needless to say, these are unproductive types.[11]

At the opposite end of the gender continuum are the fems, and here we have the opposite result. Retraction is regular as between the sg and pl subparadigms, and in the 2nd decl protection does not occur at all, with two exceptions: *dólja | dóli | dóli | doléj* 'share' and *derévnja | derévni | derévni | derevén' | drevnjám* 'village'. Moreover, limited retraction between sg and pl is irregular though fairly common (e.g., *kabargá | kabargí | kabargí | kabaróg | kabargám* 'musk elk').[12] Within the two subparadigms projection is absent except for the stressed ending *-í* of Loc$_{\text{æ}}$ in the 3rd decl. In the pl projection occurs but is clearly unproductive; it is limited to: (1) traditional words of the 2nd decl which retain mobile stress within the pl to varying degrees, as in *bórody | boród | borodám* 'beards', *skóvorody | skovoród | skovorodám* 'skillets', *óvcy | ovéc | óvcam* 'sheep', etc; and (2) words of the 3rd decl like *óblasti | oblastéj* 'areas'. But more about this later.

The productive mobile patterns of 2nd decl fems are:

	Sg	Pl
Nom	stran-á 'country'	strán-i
Gen	stran-í	strán-∅
Nom	skorlup-á 'shell'	skorlúp-i
Gen	skorlup-í	skorlúp-∅
Nom	sosn-á 'pine'	sósn-i
Gen	sosn-í	sós'on-∅

Mobility in neuters – as befits this gender's intermediate position between masc and fem – can be of either kind, retractive or projective. Projection seems to be more productive than retraction, but because of the essentially closed character of the class of declinable neuts that are not derivatives, it is hard to speak of real productivity.[13]

The following are the relevant mobile patterns of the neut:

	Sg	Pl
Nom	dolot-ó 'awl'	dolót-a
Gen	dolot-á	dolót-∅
Nom	stád-o 'herd'	stad-á
Gen	stád-a	stád-∅
Nom	br'ovn-ó 'log'	br'óvn-a
Gen	br'ovn-á	br'óv'on-∅
Nom	z'érkal-o 'mirror'	z'erkal-á
Gen	z'érkal-a	z'erkál-∅
Nom	másl-o 'oil, butter'	masl-á
Gen	másl-a	más'ol-∅[14]

This completes the brief preliminary survey of kinds of productive stress mobility in substantives. Now for some explanations.

Starting with masc monosyllables, Zaliznjak's analysis (which is instructive as far as it goes) can be restated in its most seminal part in terms of markedness. His basic dichotomy between numerable and non-numerable stems is to be evaluated as the semiotic distinction between unmarked and marked, respectively. That these are the values for his two categories can be seen from the relationship between the terms of one of the most important subclasses of the semantic opposition at stake, namely that between concrete and abstract substantives. This is particularly palpable where the distinction is implemented in the opposition verbal noun vs. non-verbal noun. From example, *tok* 'flow' is the verbal noun associated with the stem *t'ok-*. It has fixed stem stress throughout the paradigm, which is typical of all nomina actionis. This state of affairs – fixity of stress – does not change when *tok* means 'electricity', since the word is still in the abstract (non-numerable) category (cf. Borunova *et al.* 1983, 580). A different *tok* 'mating call/display of birds' (which may or may not be etymologically kindred to the first; see Vasmer 1973, 69–70) is associated with the stem *tokova-* as a verbal noun, in which sense it has fixed stem stress. But in its concretized form, as the place where the activity is carried on, the word is mobile: Loc$_2$ *na tokú,* pl *toká|tokóv,* etc.

What is significant for the Russian system of stress is the congruence between the markedness values of the prosodic unit (stress position) and the semantic category. Fixed stress is marked; so are nonnumerable substantives. The stress is, therefore, an icon of the meaning. To be sure, this state of affairs is not limited to masc monosyllables. In those rare cases where a difference exists, for example, stress on the stem-final syllable characterizes the pattern of the verbal noun, while the concretized version of the word has stress on the initial (i.e., not on the stem-final syllable): *otzýv* 'recall, recalling', correlated with *otziváj-/otzov-ú/otozva-* 'recáll [as an ambassador]' vs *ótzyv* 'opinion', correlated with the reflexive counterpart of the verb stem.[15] The stem-final syllable (it will be remembered) is the marked syllable, and stress on this syllable (by the principle of markedness complementarity) is congruent with the abstract meaning of the word in question.

Note, however, that in consonance with the principle of markedness complementarity the incidence of stress is an unmarking of the marked syllable on which it falls. When that syllable is other than the stem-final, the potential for mobility exists which may or may not be actualized. For instance, a semantic difference between *própusk* 'omission' and 'pass [a piece of paper]' is correlative with a difference in the stress of the pl: *própuski* vs *propuská,* respectively (cf. the earlier example *tóki* vs *toká*).

The former meaning is closer, via its abstract nature, to the verbal noun, whereas the latter is a concretization – hence the stress mobility of the stem in which it is implemented (cf. Shapiro 1967, 205). Although such differentiations are not numerous, what is important is that the opposite situation never materializes: fixity of stress is never associated with concretization and verbal nounhood with mobility for the same word. The verbal noun may display stress on a syllable other than the stem-final, but in that meaning the stress will remain immobile.

Polysyllabic mascs are a particularly interesting test case for the theory of Russian stress being developed here because many such words are derivatives and, therefore, involve suffixes. Now, suffixes are marked elements. When they are affixed to deriving bases they introduce a marked component into the resultant derivative. In the case of Russian suffixes, moreover, the structure of the suffix itself may furnish another (potential) source of markedness. Specifically, masc suffixes ending in compact consonants are marked over and above their marked status as morphological entities vis-à-vis masc suffixes that end in a non-compact consonant. This is so because compact consonants are [M cmp] while non-compact consonants are [U cmp].

A perusal of the list in Zaliznjak (1977, 87–88) shows that when suffixes ending in a non-compact consonant are stressed on the ultima in the nom sg, a *stol* type of stress pattern obtains almost not at all, the only exceptions being *-ún* and *-éc*. The latter, however, is not a true exception because a suffix containing a vowel | zero alternation and bearing the stress will always give up the stress to the desinence where there is one (the exceptions being *zaëm* 'loan' and *naëm* 'hiring' and their derivatives). It is interesting to note that all suffixes that retain the stress throughout the paradigm are of foreign origin except those in yod: *-áj, -táj, -éj*. This means that only *-až* is productively of the *stol* type, whereas the bulk of the list is stressed on the stem-final syllable throughout (e.g., *-íst, -ánt, -ór, -ér*, etc.). Finally, of those that display stress of the *stol* type, the three suffixes having either a compact or a non-compact final consonant – *-ar', -il', -al'* – all have a stem ending in a sharp (palatalized) consonant, i.e., in a [M shp] segment. Of these three, only the first has any degree of productivity in contemporary Russian.

Composita generally, as well as abbreviations, not only have immobile stress but accent the stem-final syllable (cf. Zaliznjak 1977, 88). This is in complete conformity with the semantic and morphological markedness of these classes. When an abbreviation is no longer felt to have a constituent structure, it tends to conform to the morphophonemic principle governing the markedness of suffixes, where its stem-final portion can be likened to

a **suffix** (= a suffixoid, R *final*'), e.g., *politrúk* 'political instructor in the Soviet army', *voenrúk* 'military instructor', *fizrúk* 'physical education instructor', which in non-normative Russian exhibit a pattern of the *stol* type.

As we have seen, stem-final stress throughout the paradigm is congruent in mascs with stems that are semantically or morphologically marked. Since all masc stems of the 1st decl must bear the stress in the pivotal nom sg form, we conclude – applying our principle of markedness complementarity – that all masc stems of the 1st decl must be at least partly marked. That is to say, even the *stol* type shares a stressed stem in the nom sg with all other 1st decl mascs, regardless of their syllabicity. All masc mobile stems, therefore, have a contrast between the nom sg and nom pl. To the extent that mobility is productive in any given stem type and overall, it is typical of masc stems to instantiate the well-known tendency of Russian substantives to display different positions of stress in the two grammatical numbers.

The situation of the masc is maximally contrasted with that of the fem, which is to be expected since these two genders are opposed to each other as unmarked to marked, respectively. Because the marked fem is more restricted in scope by definition, it is iconically congruent with greater restriction in stress mobility. All fem stems with stem stress in the pivotal nom sg are fully marked, and this is why no mobility is possible in such stems. The neut gender, as intermediate between fem and masc, also has a restricted stress mobility, but less so than fem and less free than masc. Thus in neut stems stress on the final syllable invariably means fixity in the paradigm – but only with polysyllabic stems. With monosyllabic stems mobility is slightly more productive than not.

Actually the situation in fem stems is a bit more complicated. The maximal contrast is between 1st decl masc and 2nd decl fem. The 3rd decl fem stems are special because they may display mobility of the *sól'* | *sóli* | *sóli* | *soléj* 'salt' or *óblast'* | *óblasti* | *óblasti* | *oblastéj* type; also, of the *grúd'* | *grudí* | *grúdi* | *grudéj* 'breast' type, which is limited to monosyllables (*ljubov'* 'love' and *neljubov'* 'dislike' are a unique pattern). Just as in the palatalized masc stems of the *gólub'* | *gólubja* | *gólubi* | *golubéj* 'pigeon' type, so 3rd decl fems with mobile stress are a closed class of words that is obsolescent if not obsolete (cf. Voroncova 1979, 79) and shrinking apace. Increasingly, stress is coming to be fixed in the same position as the nom sg throughout the paradigm; this applies to mono- as well as polysyllabic stems.

2nd decl fems that have unstressed stems in the nom sg (*straná, skorlupá*, etc.) regularly move the position of stress over one syllable to the left in the nom pl, i.e., onto the stem-final syllable. Exceptions of the *borodá* | *borodý* | *bórody* | *boród* | *borodám* type are just that: a class of mainly old

words that have the stress pattern associated with pleophonic and pseudo-pleophonic stems.[16] In the mainstream of examples, however, this pattern, which takes case forms of the pl into account over and above the grammatical number, is constantly being reduced in the scope of its application (e.g., *srédy | srédam* 'Wednesdays' and *strófy | strófam* 'stanzas' instead of the traditionally normative *sredám* and *strofám,* not to mention non-standard *bórody | bórod | bórodam;* see Borunova *et al.* 1983, s.v.).

The relation between the genders and their values, on one hand, and the stems and their values, on the other, is part of the completely systematic grammatical determination of stress in Russian. The masc is the completely unmarked gender, the fem the completely marked gender, while neut is marked vis-à-vis masc and unmarked vis-à-vis fem. Because of the morphological structure of the 1st decl every masc of that decl must have a stressed stem in the nom sg, and the only possible movement in productive types is projection of stress from the stem onto the desinences of the remaining cases of the sg and/or the pl. It is the unmarked value of the masc gender that is coherent with stress mobility of any kind (here: projection). In the fem, however, it cannot be the gender that is coherent with mobility, since the value of the gender is marked. But the unmarked value of the stem of 2nd decl words with stressless stems in the nom sg (i.e., *straná, skorlupá,* etc.) is what coheres with stress mobility (here: retraction). In the neut, finally, both the unmarkedness of the gender and the same value for the stem when stressless in the nom sg are coherent with stress mobility (here: both projection and retraction).

Now it becomes systematically understandable why words of the 2nd decl that have stem stress in the nom sg are immobile (except *dólja* and *derévnja*): because such stems are doubly marked (and not unmarked) for either gender or stem type. Multiple markedness ("hypermarkedness"; see more below and cf. Shapiro 1980, 73ff) is defined as a higher degree of restrictedness in conceptual scope than ordinary markedness, owing to the presence of a cluster of marked components in one unit; hence the incidence of a higher degree of structural (formal) restrictedness in the range of prosodic alternations. This is yet another demonstration of the isomorphism of prosody and grammar, where the former is an icon of the latter. It is this iconic relationship that underlies the contrast between sg and pl stems in the Russian substantive, given a situation in which stress mobility is possible to start with.

We come now to the gen pl form, which is problematic and has been the subject of special discussion (Worth 1968). The first thing to bear in mind is that this form occupies one of the pivotal places in the structure of Russian declension, along with the nom and gen sg and nom pl. In mobile stems, moreover, this special status of the gen pl is mirrored in the position and the

status of the stress. The problem comes to a head in fem and neut paradigms
where the gen pl desinence is zero.

One must distinguish (because the language does!) between anaptyctic and
non-anaptyctic stems, i.e., between those that do and those that do not have
a vowel/zero alternation. Where there is no consonant cluster at the end of
the stem and hence no occasion for vowel insertion before the zero desinence
of the gen pl, the stress regularly falls on the stem-final syllable:

stádo	stadá	stád	stadám
zérkalo	zerkalá	zerkál	zerkalám
veretenó 'spindle'	veretëna	veretën	veretënam
licó 'face'	líca	líc	lícam
straná	strány	strán	stránam
skorlupá	skorlúpy	skorlúp	skorlúpam

In these stress types the accent falls on the last syllable of the stem in the gen
pl regardless of where else it falls in the rest of the paradigm. In every such
instance stem-final stress is congruent with the marked value of the gen pl.
The only exceptions to this (leaving aside pleophonic and pseudo-pleophonic
stems) are *graždanín | gráždane | gráždan | gráždanam*) / 'citizen and *krú-
ževo | kruževá | krúžev | kruževám* 'lace'.

In anaptyctic stems the picture is a bit more mottled:

máslo	maslá	másel	maslám
sedló 'saddle'	sëdla	sëdel	sëdlam
polotnó 'linen'	polótna	polóten	polótnam
sérdce 'heart'	serdcá	serdéc	serdcám
ozercó 'small lake'	ozërca	ozërec	ozërcam
kol'có 'ring'	kól'ca	koléc	kól'cam
jajcó 'egg'	jájca	jaíc	jájcam
ovcá	óvcy	ovéc	óvcam
sestrá 'sister'	sëstry	sestër	sëstram
ser'gá 'earring'	sér'gi	serëg	ser'gám
svin'já 'pig'	svín'i	svinéj	svín'jam
metlá 'broom'	mëtly	mëtel	mëtlam

In many of these patterns the gen pl displays stem-final stress, whatever
else happens in the pl subparadigm. In this respect such patterns are no
different from what has conventionally been called "desinential stress",
i.e., *čertá | čertý | čertý | čert | čertám* 'feature' or *kabargá | kabargí | ka-
bargí | kabaróg | kabargám,* where *čért* and *kabaróg* have stem-final stress
that is called "desinential" because the desinence is zero, and the stress
falls on the last stressable syllable of the word. But the existence of stem-
final stress in anaptyctic stems with mobile stress as between sg and pl
subparadigms is clearly unproductive, with the possible exception of those
words that have a stem-final -*c*- (i.e., *koléc, jaíc, ovéc, serdéc, teléc* 'corpus-
cles', *kryléc* 'porches', *derevéc* 'sticks', *kruževéc* 'laces'). Despite some
vacillation of the type *gumnó | gumná | gúmna | gúmen ~ gumën | gúm-*

nam 'threshing floor' or *oknó | okná | ókna | ókon ~ okón | óknam* 'window (*okón* is now considered non-standard), it appears that stem-final stress in the gen pl is a distinct traditionalism. The contemporary norm overwhelmingly tends to have penultimate stress there. For instance, a word like *máslo,* which in technical usage has a nom/acc pl *maslá,* also has a gen pl *másel.* Since desinential stress in the nom/acc pl is an innovation (cf. Xazagerov 1973, 105), as is the anaptyctic vowel of the gen pl, we could label the penultimate stress of *másel* an "archaism" that preserves the place of stress of the earlier non-anaptyctic form. But this would be at odds with what is perfectly regular in contemporary standard Russian, namely *polóten, sëdel, sósen, mëtel,* etc. It would also fly in the face of the attested change in the 19th century from *zérkal* to *zerkál* (Voroncova 1979, 126–127). This piece of evidence is crucial because it substantiates the judgment that non-anaptyctic stems have stem-final stress in the gen pl, whereas anaptyctic stems have penultimate stress (*koléc,* etc., excepted; also *krúžev*). Note the regularity (on this analysis) of *ozercó | ozercá | ozërca | ozërec | ozërcam* – the only example of stress retraction in the pl of a stem in -*c*- which is polysyllabic independent of -*c*-.

Even though *koléc* and *jaíc* are 19th century innovations, *kólec* and *jáic* being normative for the 18th century (Voroncova 1979, 127) and earlier, the directionality of the change in these examples is actually misleading, since stem-final stress here is tied to the presence of the suffixal element -*c*-. The examples that illustrate the true directionality are *sud'bá | sud'bý | súd'by | súdeb | súd'bam* 'fate'; and *sud'já | sud'í | súd'i | súdej | súd'jam* 'judge' where the gen pl *súdej* has recently become normative along with the traditional *sudéj* (Borunova *et al.* 1983, 567; cf. Avanesov and Ožegov [1959, 573] for the proscribed variant).

Given the establishment of penultimate stress in the gen pl as a regularity in anaptyctic stems we can conclude that this pre-final stress is the prosodic icon of the gen case in the pl number of anaptyctic stems. The hypermarking of the gen pl occasioned by anaptyxis is mirrored by the incidence of a hypermarked stress in this form, namely pre-final or penultimate stress. In non-anaptyctic stems the gen pl is simply marked, not hypermarked, hence the (marked) stress on the stem-final syllable. The anaptyctic stem shape imparts a degree of markedness to the form over and above the marked values of gen case and pl number.

We are now in a position to enumerate the types of productive substantival stress in contemporary Russian involving mobility as between the sg and pl subparadigms, in the first instance, and within the pl, in the second.[17]

Type A	stól-∅	stol-í
	stol-á	stol-óv

	topór-∅	topor-í
	topor-á	topor-óv
Type B[18]	škáf-∅	škaf-í
	škáf-a	škaf-óv
	mást'er-∅	mast'er-á
	mást'er-a	mast'er-óv
	l'és-∅ 'forest'	l'es-á
	l'és-a	l'es-óv
	prof'éssor-∅	prof'essor-á
	prof'éssor-a	prof'essor-óv
	kólokol-∅	kolokol-á
	kólokol-a	kolokol-óv
Type C	stád-o	stad-á
	stád-a	stád-∅
	z'érkal-o	z'erkal-á
	z'érkal-a	zerkál-∅
Type D	másl-o	masl-á
	másl-a	más'ol-∅
Type E	s'ol-ó 'village'	s'ól-a
	s'ol-á	s'ól-∅
	dolot-ó	dolót-a
	dolot-á	dolót-∅
	stran-á	strán-i
	stran-í	strán-∅
	skorlup-á	skorlúp-i
	skorlup-í	skorlúp-∅
Type F	s'odl-ó	s'ódl-a
	s'odl-á	s'ód'ol-∅
	polotn-ó	polótn-a
	polotn-á	polót'on-∅
	sosn-á	sósn-i
	sosn-í	sós'on-∅

The nom (to repeat) is the determinative case hierarchically in the pl subparadigm as far as the stress of the peripheral pl cases is concerned: dat, instr, and loc always have the same stress position as nom (and acc when the word is inanimate). The same can be said of the sg subparadigm except for the *stol* type. This difference between the sg and pl is coherent with the markedness values of the two grammatical numbers. In the marked pl the assimilation is complete, and the range of different stresses is more restricted. In the unmarked sg, on the other hand, the assimilation to nom is partial, and the range of different stresses is less restricted.

At this point it would hardly be amiss to emphasize yet again the unproductivity, hence the structural irrelevance to the thrust of my analysis of the Russian system of stress, of the accentuation of items like *volk* or *ruká* 'hand' or *kost'* 'hand'. To be sure, if what we consider to be our

ultimate task remains at the level of a purely descriptive comprehensiveness, there is no gainsaying the advantage of labeling the dat pl as determinative (Garde 1965, 1978, 1980). However, quite apart from the fact that choosing the dat pl form as pivotal makes no sense grammatically (more about this below), a theory that sacrifices teleological validity in order to cover as many examples as possible has misconceived its aim fundamentally.

The number of productive mobile stress types is six, but it ought to be observed that the sole discrepancy between C and D, as between E and F, is the presence of anaptyctic stem shapes in the gen pl of D and F, which accounts for pre-final rather than final stem stress. In any event the exact number of types is of little moment.

What is of moment is the system of stress including its elements and the manner of their combination. One of the things this study has established is the primacy of the stem and its final syllable. The stem-final syllable is the marked syllable in the structure of the Russian substantive. Stress positions itself on this syllable in the nom sg when the word is semantically, morphologically, or morphophonemically marked,[19] which is where it stays throughout the paradigm absent any factors predisposing its movement onto desinences (in the masc only). In the opposition of grammatical number that is associated with productive types of mobility in contemporary Russian the stress moves onto the stem-final syllable in the pl from the desinentially stressed sg subparadigm. Stress on the marked stem-final syllable is congruent with the marked value of the pl. In those cases (masc and neut) where stress shifts from the stem in the sg to the desinence in the pl, the stress in the sg is never stem-final (except *rukavá,* etc.; see note 10). This movement can be understood as one from an unmarked stem syllable (= any other than the final syllable) onto a marked syllable, i.e., the desinence (where the latter is real, not zero). The counter-directionality of the movement between the fem and non-fem genders is conditioned (to reiterate) by the markedness values of the genders themselves. Lastly, as regards the stem syllable, the hypermarking associated with anaptyctic forms of the stem in the gen pl occasions the incidence of stress in that form on the hypermarked syllable – the penult.

Another methodological result yielded by this study is the assessment of the status of the initial syllable of the stem as of systematically secondary importance. This means that in a word with a monosyllabic stem like *stádo* or a polysyllabic one like *zérkalo* the stress of the sg is nonfinal – a class designation including initial stress. In fact, in the case of monosyllabic masc and neut stems stress mobility (projection) is only possible on the evaluation of sg stress as non-final. So that, for instance, the change in this century of the stress from *frónt | frónta | frónty | fróntov* to *frónt | frónta | fron-*

tý | *frontóv* (Borunova *et al.* 1983, 618) – i.e., from a fixed to a mobile type – is predicated on a reinterpretation of the position of stress in the sg from stem-final (hence fixed) to non-stem-final (= initial, hence mobile).

At the foundation of the Russian system of stress we find two elements, stem and desinence. The first can, of course, include suffixes. But whether it does or does not, the stem is further subdivided into only two units insofar as stress is concerned, stem-final and non-stem-final syllable. The latter is in turn divided into initial and pre-final syllables, which are in complementary distribution: initial syllables are a species of nonstem-final syllable only in non-anaptyctic forms, and of pre-final syllables only in anaptyctic forms.

Along the way some light has also been cast on what has been called "uslovnoe udarenie", a term coined by Zaliznjak (1964) to designate the stress of forms like nom/acc *stol* or gen pl *mest* which appear ambiguous but which are disambiguated by appeal to the remainder of the subparadigm (see Mustajoki 1980 and 1981a for a careful discussion). Most contemporary investigators, both within and without the USSR, now take such forms to have a systematic stress that is at variance with its real (phonetic) stress. In other words it has become common practice to disregard the actual position and to label the stress "desinential" in such forms.[20] However, it is important to point out that the analysis presented in this study only takes the actual stress into account and never once wavers from this attitude. To the extent that a semiotic investigation successfully explains the system of Russian stress, the linguistic validity of "conventional stress" is thereby rendered null and void.

Given the conditions under which mobility develops and is perpetuated in Russian, what the present study has demonstrated, finally, is the iconic nature of the Russian system, at least as far as the substantive is concerned (for the verb, see Shapiro 1980). Stress position in mobile paradigms is not only not capricious, it is an icon of the semiotic values of the syllables in a stem. As in all of grammar these values are markedness values (cf. Shapiro 1983). While the bulk of Russian substantives has fixed stress, the most common vocabulary is predominantly mobile in stress, and within certain known limits the commoner the word the more likely mobility becomes (Mustajoki 1981b). This means that mobile stress must be a structurally motivated phenomenon.

Structural motivation is, of course, understood somewhat differently by different investigators. I take the view that Russian prosody is a semiotic phenomenon, that its explanation (motivation) is to be sought in patterned congruences between prosody and grammar that are semiotic in their essence. From that viewpoint classification schemes (à la Red'kin 1971),

morpheme valency treatments (à la Garde 1965b, 1978, 1980; also now Zaliznjak 1985), and rule formalism approaches based on valencies (à la Halle and Kiparsky 1979) – their variable merits notwithstanding – all hit wide of the ultimate mark because of a common failure to address the genuinely explanatory aspect of the subject.

It might be worthwhile to make the difference between my analysis and that of Garde quite explicit, since Garde represents an approach that has been taken up increasingly by others.[21] From the first complete formulation of his 'theory' (Garde 1965) through its most recent statement (Garde 1980), the author has kept unswervingly to the position that morphemes have varying grades of 'strength' or 'weakness', and that it is the relative level of 'dominance' as between morphemes when juxtaposed in words that accounts for the actual positioning of stress in Russian.

Garde emphasizes, therefore, the organic link between stress and morphology (cf. Garde 1965a, 1968), echoing the conventional wisdom about Russian stress while making its received understanding considerably more explicit than his predecessors had done. But the overarching aim (realized most fully in Garde 1980) is steadfastly descriptive. Garde wishes to characterize the accentual phenomena of Russian as comprehensively and economically as possible, and he certainly succeeds brilliantly. But the truly theoretical (explanatory) side of the issue is left unattended to. Despite much explicit attention to the morphologically based nature of Russian stress, Garde nowhere aims to explain why certain morphemes have the grades of 'strength' that they do or why certain morphemes have dominance over others.[22]

Nowhere, indeed, do we find any hint of the iconic relation between Russian prosody and Russian grammar – a relation whose establishment would explain the coherence between facts of Russian stress and facts of Russian morphology. Whatever the actual formulation of Garde's views, and however significantly they may or may not have changed from their initial promulgation, the fact remains that his entire methodological scheme aims primarily at insuring predictability – a traditional goal of structural linguistics, to be sure, but of no greater explanatory force for all that.[23]

Finally, despite his evident awareness of the historical side of the picture (Garde 1976), there is no attempt in his work to uncover the teleological raison d'être either for the changes that the Russian system has undergone or for the flux that is so prevalent in its contemporary state.

We know that the history of Russian accentuation is a movement away from the heritage of Common Slavic, with its patently phonological motivation of accentual phenomena, to a prosodic system that is motivated primarily by the grammar (morphology and morphophonemics). This

movement is a recoding (reinterpretation) of one system into another. In some cases, naturally, a modified version of the older system continues to subsist in the contemporary language, as when the stress of *golová* 'head' shifts within the two grammatical numbers away from or onto desinences. Zaliznjak (1977) makes admirably palpable the extent to which these older accentual regularities have survived into modern times as traditional stresses and patterns. It is clear from his discussion that competition between older and newer regularities is involved in accentual change over several centuries. Consequently it is not merely pointless to try to account for all of the accentual phenomena of Russian as if no historical residues from older systems coexisted with the new. Such a methodological stance would constitute a willful distortion of the structure of the Russian system of stress as it exists today.

In conclusion I want to reemphasize (cf. Shapiro 1980, 1983, 1985b) how a semiotic analysis contributes to an understanding of language structure generally as well as to the topic at hand. In this study such items as stems, desinences, and positions or patterns of stress are viewed not as mere artifacts of description to be manipulated algorithmically but as signs and sign complexes with semiotic values – markedness values[24] – that cohere to make the Russian system of stress what it is. If Russian accentuation makes sense, it is because prosodic values cohere with the values of the grammatical units in which the accentual units are embedded suprasegmentally. The specific character of the coherence is semiotically that of the chief kind of icon – the diagram – in which relations are mirrored by relations.

The diagrammatic character of Russian stress is not just a synchronic fact but a diachronic one too. When 2nd decl words developed the opposition between desinential stress in the sg and stem stress in the pl, as they did in overwhelming strength by the first third of this century (Voroncova 1979, 48–59), this was the actualization of a real tendency as part of a teleological thrust (cf. Shapiro 1985b) – the tendency to diagrammatize the relation between prosody and grammar. It was not just a tendency to differentiate the sg and the pl subparadigms but a systematic implementation of the semiotic potential toward diagrammatic congruence inherent in the accentual alternations of Russian, on the one hand, and the grammatical relations, on the other.

If real progress is to be made in understanding prosody, it is the semiotic function of prosodic alternations that needs to be understood, with their historical development as an indispensable methodological backdrop. So long as linguists remain content to pour old wine into new bottles (e.g., by devising ever-proliferating "phonologies" that regard the sound system of

a language to be an algorithm) or to stack the deck (e.g., by reclassifying accentual phenomena in terms of "weak" and "strong" morphemes), the real goal of prosodic research will remain as remote as ever.

Ultimately, of course, that goal must be subtended by the overarching aim of all linguistic research: making sense of grammar as a system of signs. An analysis of Russian stress that conceives its elements as fulfilling "the cardinal, viz. semantic, task of language" and interprets them "with respect to [their] significative value" (Jakobson 1977, 5) will have gone a considerable distance toward realizing that goal.

NOTES

* This article is the culmination of my work on Russian stress, which began with my unpublished Ph.D. thesis (Harvard, 1964) and has occupied me with few interruptions since. Needless to say, my views on the subject have undergone fundamental changes during this period, so that the positions taken, for instance, in Shapiro (1969) are largely incompatible with those I espouse here. The present study, while limited to substantives, is intended to open new vistas on research into Russian stress as a whole, in the expectation that the methodological tenets both explicit and implicit in the analysis, will prove fruitful in the investigation of other sectors as well.

[1] The morphological and morphophonemic motivation of Russian stress is now a commonplace, but it ought to be remembered that phonological considerations do play a role in determining the position of stress in loan words, particularly when they have no discernible constituent structure in Russian. For a detailed phonological analysis of stress in Russian loan words, which, I believe, bears directly on the pivotal status of the stem-final syllable as discussed below, see Shapiro (1968).

[2] Zaliznjak (1977, 73ff) casts his analysis in terms of a distinction between what he calls "trivial" and "non-trivial" stems. When this distinction is applied to stress the only "trivial" pattern is one which maintains an immobile accent on the stem throughout the paradigm. This is, I believe, a purely descriptive distinction made in the interests of economy of statement – but at the cost of skewing the results of the analysis away from a genuine understanding of the Russian system of stress.

[3] Words like špric in the sociolect of professionals, as Zaliznjak points out (1977, 111; cf. Borunova *et al.* 1983, 643), tend also to develop desinential stress throughout the paradigm. As will become apparent below, I regard a pattern of this sort (the "*stol* type") to be mobile, not fixed. Cf. Mustajoki (1981a).

[4] The focus here is on a pattern of stress. To be sure, there are also professional stressings that are at variance with the general norm by being on a different syllable to begin with (i.e., in the nom sg), for example: *kompás* 'compass' among seamen instead of *kómpas*, *dóbyča* 'payload, yield' among miners instead of *dobýča*, etc. *Stol*-type stressings are less frequent in professionalisms than is desinential stress limited to the pl.

[5] As will be made clear below, the qualification "normally" is needed here because of the hypermarked status of the penultimate (pre-final) syllable in the gen pl of anaptyctic stems (i.e., stems with an inserted vowel as the realization of a vowel/zero alternation).

[6] The markedness values of mobile vs fixed stress are thus in an inverse relation to the numerical values of these patterns. For instance, according to Mustajoki's count (1981a, 112–113; cf. 1980, 375), only about 7% of Russian substantives have some sort of mobile stress. But as soon as the corpus is limited to that of a frequency dictionary like Zasorina (1977), the higher the frequency the more likely the incidence of mobility becomes (Mustajoki 1981b, statistically corroborating the intuitions of Zaliznjak 1977). In this light the analysis of Russian verb stress of Shapiro (1980) needs revision.

[7] Of no relevance is the predictability of a particular stress pattern based on some one form like the instr sg or dat pl.

[8] The distinction between mass and count nouns is a rough one which is subject to refinement. The labels "mass" and "count" (introduced by me) are really to be subsumed under Zaliznjak's own terms *neisčisljaemye* and *isčisljaemye,* which I have translated as "non-numerable" and "numerable", respectively (the former term, incidentally, does not mean anything like "possessing no plural"). Zaliznjak (1977, 80) proposes a semantic classification of this opposition consisting of five subgroups: (1) words designating undifferentiated homogeneous masses, trees, abstract concepts, spaces, surfaces, and directions; (2) words designating collectivities, boundaries, well-defined territories, buildings, large receptacles, and kinship terms; (3) designations of numerable material objects (except those in group 2) and animals, as well as persons according to their occupations or viewed affectively; (4) designations of mountains, mounds, openings, figures, geometrical signs, and coins; (5) designations of body parts and persons (not included under 2 & 3), and some miscellaneous items. In the first four groups their order corresponds to an increasing liability to desinential stress in the sg, starting with the least liable (conversely: most liable to stem stress) – group 1 – and ending with the most liable (conversely: least liable to stem stress) – group 4. The fifth group is semantically neutral vis-à-vis stress consisting as it does of words that are most tenacious in preserving traditional stress, hence in resisting the semantics-based prosodic principle of contemporary Russian which governs most monosyllabic masc substantives in the sg.

[9] The vowel is only an orthographic convention in such substantives; contrast its morpho-phonemic reality in derived forms (e.g., *úgol/uglá* 'corner' as compared with the compound adjective constituent *-ugól'nyj,* etc.)

[10] With reference to masc pl forms in *-á* the appropriateness of the word 'only' calls for some qualification. The only true exceptions to the situation as I have formulated it here are *rukáv* 'sleeve', *obšlág* 'cuff', *perëd* 'front', *kokíl'* 'child mould', and *postáv* 'millstone'. These are the only items in which a standard form displays compatibility of stem-final stress in the nom sg with *-á* in the nom/acc pl. It should be noted, however, that of these the last two are specialized terms that are hardly part of the common lexicon; *postavá* is, moreover, basically dialectal and practically a plurale tantum, the usual word for this meaning being *žernová.* Finally, regardless of the incidence of this or that nonce item or professionalism in the standard Russian of cultivated speakers, it would be a mistake to regard forms like *paroxodá* 'ships', *inženerá* 'engineers', much less the notorious *oficerá* 'officers', as on a par structurally with the overwhelming weight of the mainline data.

[11] There is a certain degree of productivity in the retraction exhibited by words designating persons according to their nationality or geographical provenience, e.g., *kazák | kazaká | kazáki | kazákov* 'Cossack'. As Zaliznjak's illuminating discussion of this type makes clear (1977, 89–90), there is a general trend in contemporary Russian to have stem-stressed collectives in the pl, of which ethnonyms and patrials are an example. In the latter, moreover, stem stress is engulfing the sg as well as the pl (e.g., *kazáka* instead of *kazaká, čuváša* 'Chuvash' instead of *čuvašá, kalmýka* instead of *kalmyká,* etc.), bringing an increasing number of such words into alignment with their fixed-stress congeners like *slovák, karakalpák, korják, tadžík, kumýk, sel'džúk,* and *talýš.* Incidentally, Zaliznjak fails to note that it is ethnonyms that develop fixed stem stress, while native patrials keep the stress pattern of *sibirják | sibirjaká, permják | permjaká, moskvíč | moskvičá* (cf. the contemporary stress of *polják | poljáka* for the older *poljaká*).

[12] It could be argued that "irregular" is too strong a designation for words of this type, which are after all quite numerous; there are approximately twice as many substantives like *stat'já* 'article' or *čertá* 'feature' as those like *žená* 'wife' (Mustajoki 1981b, 112).

[13] Cf. Voroncova (1979, 116ff). As Xazagerov (1973, 109) notes, older nom/acc pl forms like *sená* 'hays', *testá* 'doughs', and *mjasá* 'meats' have either disappeared from the language or survive only in specialized professional argots or uses (e.g., *mjasá* is the designation of the quality of an animal's flesh).

[14] The patterns associated with items like *sérdce* 'heart', *kol'có* 'ring' and *dérevo* 'tree' are omitted here because of their unproductivity but are taken up in detail below.

[15] For a pretty complete list of such items, see Shapiro (1967, 202).

[16] Stems of this sort are really holdovers from an older accentual system (still morphologically based but closer in time to the phonologically motivated Common Slavic system) in which stress placement coheres with the values of the cases rather than those of stems as in the

contemporary Russian system. Mobility in the pl characteristic of the older system receded almost totally during the last century and is now residually extant only in individual items.

[17] Omitted from consideration as unproductive are "case-marking" stress shifts like that of the acc sg of 2nd decl fems, as well as the *kabargá* type.

[18] Even in monosyllabic mascs the stessed *-i* desinence of the nom/acc pl is losing ground to *-á* in words that are susceptible of mobility. For an analysis of the latter along the lines of the present study, see Shapiro (1985a).

[19] It is interesting to note that the historical source of this stress is the neo-acute or the so-called second short intonation of Common Slavic (Xazagerov 1973, 66).

[20] Both this term and its recast version – "stress on the last stressable syllable" – are designations that I have used myself to characterize zero-desinence forms. Clearly, I now consider this practice erroneous.

[21] The most recent example of Garde's influence is Zaliznjak (1985), even though it does not appear to be explicitly or consistently acknowledged. Cf. also the very favorable reception that Garde (1976) has had among the chief proponents of the so-called 'metricist' approach to prosodic phenomena (Halle and Kiparsky 1981).

[22] Lehfeldt (1982) claims that Garde's ideas have undergone significant modification from 1965 to 1980, but the evidence he adduces appears to be largely terminological, not substantive.

[23] It is interesting that even those critics who share Garde's premises about the goals of accentual analysis see no real advance in a methodology (particularly as applied to inflection) that trades in morpheme valencies (see the discussion after Garde [1967], esp. 43–44).

[24] Zaliznjak (1985) uses the term *markirovka* in discussing the accentual properties of morphemes, but his intent is purely one of accommodating descriptive economy, and there is no indication in this splendid new history of Russian accentuation of an overarching explantory aim that would explicate the coherence of Russian prosody with Russian grammar in a semiotic sense (i.e., utilizing the notion of markedness).

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