

Regular and Deviant Patterns of Russian Nominal Stress and Their Relation to Markedness

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1. Overview

The goal of this paper is a critical examination of those categories of Russian nominal stress which must be considered irregular according to the tripartite stress system which I have developed in several papers over the past decade (Feldstein 1980, 1984, 1986). After I presented the basic notions of this stress system in a paper at the Slavic and Balkan Institute of Moscow, in June, 1989, A. A. Zaliznjak gave a critique of the stress system. Specifically, Zaliznjak criticized my system due to the fact that it sometimes defines a rare accentual type (e.g. *gvozd'* 'nail,' type BC) as regular, while referring to a more frequent type (e.g. *stat'já* 'article,' with anomalous plural stress) as irregular. Upon further examination of the system of Russian nominal stress, I have been able to reduce the number of true irregularities to a very small number, by morphologically defining declensional paradigms not only in terms of their nominative singular desinence (i.e., zero-nouns, *a*-nouns, and *o*-nouns), as I have previously done, but also in terms of their morphological behavior in the plural. In this way, several of the stress types formerly considered anomalous can now be interpreted as regular. Furthermore, a number of new and interesting relationships now comes into focus as a result. We will review all nominal accentual types in terms of their relative markedness and it will be shown that there is a remarkable parallelism among all nouns in this respect. The relationship of frequency to accentual paradigm will also be presented.

Lastly, we will present a typology of accentual regularity and irregularity in the Russian noun.

In order to provide the necessary background for my comments on stress irregularities, I would like to start by outlining my general assumptions about the basic distinctive properties of the Russian stress system. Although the same features apply to all parts-of-speech, we will concentrate on the noun in this paper. The system of Russian stress can be said to rest on two binary oppositions. The first such opposition is between words with an immobile, lexically assigned stress, and words with a grammatically predictable stress. In the first case, the stress is assigned to a syllable within the lexical item and it appears on that syllable in all paradigmatic forms. An example of this stress is that of the word *želúdok* 'stomach.' Within this stress type, grammatical morphemes play virtually no role in the assignment of stress, at least at the inflectional level. Thus, the first binary opposition is between lexical vs. grammatical determination of stress. This distinction corresponds to Zaliznjak's "trivial" stress, defined as "stress on the stem in all word forms, on the very same syllable, counting from the beginning of the word" (1985:17), as contrasted to "non-trivial" stress, which is defined as "all other" patterns. The second major binary opposition occurs within the category of grammatically determined stress. It is in my definition of the binary opposition between the two major types of grammatically determined stress that my approach differs from others. Zaliznjak's theory consists of desinential stress as opposed to mobile stress. I would object to the notion that the basic opposition of grammatical stress types occurs between desinential and mobile stress, since all types of mobility contain at least one desinentially stressed form and, therefore, desinential stress cannot be considered the invariant of either type of grammatical stress. However, this presents a dilemma for those who follow Zaliznjak's reasoning, since virtually all full noun paradigms of the so-called "non-trivial" type contain at least one instance of desinential stress (a minor exception being such words as *ózero* 'lake'). Yet, many paradigms consist exclusively of desinential stress, leading scholars such as Zaliznjak to set up desinential stress as a basic type. The answer lies in a consideration of a domain smaller than the full paradigm, called a subparadigm, for the purposes of establishing the

distinctive stress opposition within each accentual paradigm. It turns out that the appropriate subparadigms for the noun are those of singular and plural. In other words, lexical meaning and number are held constant within each subparadigm, and variation by case form occurs. Interestingly, the distinction of the category of case from that of number was drawn by Peškovskij in his work on syntax (1956:32), in which case is called a "syntactic category," while gender and number are not such categories. Since Zaliznjak does not recognize a split of the nominal paradigm into the two subparadigms of singular and plural, he misses many of the generalizations that are possible, since the subparadigms of singular and plural display properties of invariance which are not found within the full paradigms. This pragmatic fact leads to the conclusion that the singular and plural number subparadigms must be considered as the basic units of nominal morphological stress.

Having decided to restrict our attention to the accentual behavior of number subparadigms for the determination of the basic types of non-lexical stress, we shall further restrict our attention to the accentual oppositions pertaining to a given declensional type within each subparadigm. This restriction is made in order that the accentual oppositions considered be as close to minimal pairs as possible. In other words, if two words of different declensions display dissimilar stress patterns, it must be allowed that this difference is really attributable to the morphological difference, and perhaps it is not a legitimate accentual opposition at all. In deciding declension type in my previous work, I used the nominative singular (i.e. the most unmarked case form of the unmarked number) as the determiner of type. This seemed to be the most significant criterion, since both feminine nouns of the original *i*-stem declension as well as original masculine *o*-stems have similar stress patterns, which correlates with their common use of the zero desinence in the nominative singular. For the time being, let us maintain the classification of declension type based upon the nominative singular, although we shall later see how this point should be modified.

It turns out that for the overwhelming majority of Russian nouns there is a maximally three-way stress opposition within any given subparadigm of each declension type, as defined above. This three-way opposition really rests on

two binary oppositions (much as the three vowel heights do, in Jakobson's phonological interpretation, see Jakobson et al 1969:28), since the opposition first opposes lexical stem-immobile stress to the two grammatical types, which are then opposed to each other in a binary way. Let us illustrate this point first for the singular subparadigms and next for the plural, after which we will observe how this information can supply us with the invariants of the Russian stress patterns, a point that has eluded Zaliznjak and other accentologists. Since both subparadigms (singular and plural) of all declensional types have instances of stem-immobile stress, with a constant stress mark on a syllable of the lexical root, we will only briefly exemplify this type in each instance; in other words, we will pay most attention to the patterns of stress other than stem-immobile. Note further that we are considering stress within subparadigms for the purpose of defining the stress patterns other than stem-immobile. Our definition of stem-immobile is based on a domain larger than the subparadigm alone, i.e. the whole inflectional paradigm, consisting of two subparadigms. This results from the important fact that the first binary opposition — that of stem-immobile vs. non-stem-immobile — is based upon the situation across both subparadigms, while the second binary opposition — that of the two different types of non-stem-immobile stress — is based upon the situation within a single subparadigm.

Due to the above considerations, we can evaluate two manifestations of singular stem stress differently, depending on whether the stress is found in the full paradigm or not; e.g. *górod* 'city' has singular stem stress, as does *sojúz* 'union.' However, prior to any consideration of the subparadigm, there is a binary determination of stem-immobile or non-stem-immobile within the full paradigm, in which the word *sojúz* is seen to have stem-immobile stress, while *górod* does not. This indicates that there is a two-stage ordered process, which can be depicted as in Figure 1. Therefore, of these two words, only *sojúz* is evaluated as a stem-immobile, which we shall henceforth refer to as type A. A case like *górod* would be said to have initial stress in the singular, rather than

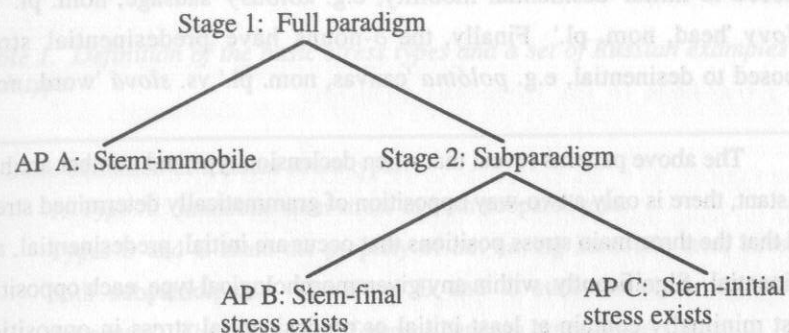


Figure 1. Two-stage process for establishing lexical and grammatical binary stress oppositions.

stem. Importantly, instances such as *górod*, with stem-stress in only one subparadigm, do not have a free stem-stress that can occur on any stem syllable. In the vast majority of cases, stem-stress in one subparadigm, which is paired to some other stress in the other subparadigm, must have the stress either on the stem initial or stem final syllable, excluding medial stress. In the singular of nouns with a zero-ending in the nominative singular, initial stress (with the possibility of initial-desinential if locative exists) is opposed to desinential stress, in addition to the ubiquitous stem-immobile. The word *górod* represents initial stress, which automatically is realized as initial-desinential if locative in *-u* exists, as in the word *béreg* 'shore.' Examples of desinential stress are *stol* 'table', *kočán* 'head (of cabbage)', *jazyk* 'language.' Type A is represented by *krokodíl* 'crocodile', *kabínét* 'office,' etc. Nouns which have the nominative singular in *-a* oppose initial-desinential mobility to purely desinential stress, in addition to stem-immobile. For example, *golová* 'head' (with accusative *gólovu*), opposed to *sestrá* 'sister.' The singular of nouns with nominative singular in *-o* presents a situation very similar to the zero-nouns, with initial stress opposed to desinential, e.g. *ózero* vs. *čisló* 'number.'

In the plural, each declension type has its unique pattern of stress oppositions other than immobile stem stress. Zero-nouns have desinential stress opposed to initial-desinential mobility, e.g. *jazykí* vs. *vólki* 'wolf, nom. pl.'

The *a*-nouns have predesinential stress (i.e. stress on the stem-final syllable), opposed to initial-desinential mobility, e.g. *kolbásy* 'sausage, nom. pl.' vs. *gólovy* 'head, nom. pl.' Finally, the *o*-nouns have predesinential stress opposed to desinential, e.g. *polótna* 'canvas, nom. pl.' vs. *slová* 'word, nom. pl.'

The above patterns reveal that when declension type and number are held constant, there is only a two-way opposition of grammatically determined stress, and that the three main stress positions that occur are initial, predesinential, and desinential. Significantly, within any given morphological type, each opposition must minimally contain at least initial or predesinential stress in opposition, although both may also co-occur. Within the entire Russian stress system, desinential stress occurs within mobile stress patterns as well as in alternation with both initial and predesinential stress. Therefore, I consider desinential stress to be a neutralized value of either initial or predesinential stress positions. On the other hand, initial and predesinential stress — when occurring within something other than a stem immobile stress pattern — are the distinctive feature of the two grammatical stress types. The stress pattern which contains predesinential in a subparadigm is referred to as type B, while the pattern which contains initial is to be called type C. The basic Russian stress types can then be defined as follows: type A represents constant stress across both subparadigms, type B contains either predesinential stress or its neutralized value desinential stress, and type C, correspondingly, contains either initial stress or the neutralized desinential. Note that all of the distinctive accentual positions are located within different portions of the stem, while the entire realm of the desinence is neutralized between basic stem-final and basic initial stress (i.e. types B and C). Within a hypothetical stem, consisting of three syllables, we can delineate the marked stress placements of all three types by saying that the initial syllable is associated with type C, the medial with type A, and the stem-final with type B. Since desinential stress can be substituted for B and C within any particular declensional paradigm, the actual realization of these types can be predicted only by knowing the relevant morphological information. In other words, a type B stress in the zero-noun, *a*-noun, and *o*-noun singular is realized as desinential, while the same type B in the *a*-noun and *o*-noun plural is realized

as predesinential. See Table 1 for the definition of the basic stress types and a set of Russian examples for each type.

Table 1. Definition of the basic stress types and a set of Russian examples for each type.

I. Basic definition of Russian stress types.

1. *Type A*: immobile stem-stress in both subparadigms.

Types B and C share the property of not having immobile stem stress in both subparadigms. Therefore, B and C stress is either mobile or desinential. The invariant differences between types B and C are:

2. *Type B*: can have marked predesinential or unmarked desinential stress.

3. *Type C*: can have marked initial or unmarked desinential stress.

II. Marking of stress positions:

Initial: if part of a mobile full accentual paradigm, it is the mark of type C.

If immobile, then type A. (#_____...#)

Medial: the mark of type A, implying that medial stress is not part of a mobile pattern (with minor exceptions). (#..._____...#)

Predesinential: if part of a mobile full accentual paradigm, it is the mark of type B. If immobile, then type A. (#....._____...#)

Desinential: marks a stress pattern as either B or C and implies first desinential syllable in nouns. (#.....-____#)

III. Examples of stress types.

Type	Zero-noun	A-noun	O-noun
AA	želúdok	koróva	jábloko
BB	jazýk	kolbasá	čisló
CC	volk	golová	slóvo
BC	gvozd'	gubá	toržestvó
CB	sad	vodá	ózero

Further, since type A stress is confined to the stem, but types B and C can have stress both in the stem and the desinence, we can say that type A is marked for

stem stress, while types B and C are unmarked, admitting both stem and desinential stress.

2. Exceptions to the three-way principle

If we examine all of the exceptions to the principle that a given subparadigm will have no more than a three-way opposition of stress patterns, we can classify them into a few basic categories. In virtually all instances the deviation can be explained by saying that an irregular stress pattern for a given declension type is using the regular type of another inflectional class. Only in the rarest instances — involving a handful of cases — do we see the use of a completely unfamiliar stress pattern.

One of the most important types of exceptional stress behavior in the above outlined system is the case of a plural stress realization of either type B or type C that does not match that of regular zero-nouns, *a*-nouns, or *o*-nouns. Type B and C plural realizations specify that B has stem-final stress in *a*-nouns and *o*-nouns, but has end-stress in zero-nouns, while type C has direct vs. oblique case mobility for zero-nouns and *a*-nouns, but end-stress for *o*-nouns. In other words, a zero genitive plural implies a B stem-final realization, while a nominative plural *-a* implies a C stem-final realization. This patterning is quite remarkable, in that zero represents the most reduced possible desinence, while *a* represents the strongest and most compact desinence — each one at opposite poles in specifying marked plural realizations of types B and C. Now let us observe that one of the major areas of accentual irregularity can be found when the nominative and genitive plural desinences do not correspond to the usual behavior of the declensional class, designated on the basis of the singular paradigm. Since there are two possible nominative plural desinences, *-i* and *-a*, and two possible genitive plural desinences, zero and *-ov/-ej* (treated as a single basic desinence, predictable by the stem-final consonant), there are four possible combinations of plural nominative and genitive endings, which can apply beyond the confines of the usual correspondences between singular and plural subparadigms. Stress behavior in the plural is a direct consequence of the

choice of one of these four plural morphological types, regardless of what the singular morphological paradigm is. Let us consider these four morphological possibilities of the plural:

1. Nominative plural *-i*, genitive plural *-ov/-ej*.

This corresponds to the regular plural morphology of zero-nouns and has the accentual realization B=end-stressed, C=mobile (initial~desinential). These realizations hold, even when this plural morphology is used by nouns which are not zero-nouns in the singular: e.g. neuter *o*-nouns *očkó* 'point,' *úxo* 'ear,' and *óko* 'eye, poetic,' use these plural endings and have the plural stress opposition typical of zero-nouns, *očkó* like a type B and *úxo, óko* like type C. Examples of feminine *a*-nouns with these plural endings and zero-noun plural accent include end-stressed *praščá* 'slingshot,' *dežá* 'dough bowl,' *stezjá* 'path,' *xanžá* 'bigot,' *kvašnjá* 'kneading trough,' *karčá* 'inundated log' and mobile *svečá* 'candle,' which behave like zero-noun types B and C, respectively. My previous work has treated cases of plural end-stressed *a*-nouns as anomalous, because I classified nouns only according to their singular morphological paradigm. These examples, and those that follow show that the morphological pattern of each number determines that subparadigm's stress realizations. In reality, we have more than just the zero nouns, *a*-nouns, and *o*-nouns. *Úxo*, for example, could be called an *o/i*-noun, taking into account its behavior in both numbers.

2. Nominative plural *-i*, genitive plural zero.

This corresponds to the regular plural of *a*-nouns, in which B=predesinential and C=mobile (initial~desinential). There are instances of both masculine zero-nouns and neuter *o*-nouns which use these plural desinences with the corresponding *a*-noun stress realizations. The zero-nouns *zubók* 'tooth, diminutive,' *rožók* 'horn, diminutive,' *glazók* 'eye, diminutive,' and *sapžók* 'boot, diminutive,' all have plural type B stem-stress, instead of end-stress, which I formerly treated as anomalous. It is clear that this stress is a result of the use of *a*-noun plural morphology. Similarly, the neuter *o*-noun *plečó* 'shoulder' departs from regular plural *o*-noun morphology and uses the plural *a*-noun endings, which explains its type C plural mobility, anomalous for regular *o*-nouns. The isolated noun *kazák* 'Cossack,' accentually like *zubók* in one of

its accentual variants, has regular *o*-noun plural morphology and, therefore, is anomalous in its plural stem-stressed variant. Similarly, the neuter *o*-nouns *kryl'có* 'porch,' *tavró* 'brand,' are accentually like *plečó*, but have a regular *o*-noun morphology in the plural, making them anomalous.

3. Nominative plural *-a*, genitive plural zero.

This pattern corresponds to regular *o*-nouns, in which the realization B=stem-final is opposed to type C end-stress. However, this morphological pattern is also found with masculine zero-nouns, such as *ščenók* 'puppy' and *drug* 'friend.' These two nouns correspond exactly to the regular *o*-noun plural realizations of types B and C.

4. Nominative plural *-a*, genitive plural *-ov/-ej*.

This can be called a mixed plural morphological pattern, corresponding to none of the three regular models. Interestingly, it turns out that this pattern behaves like the *o*-noun type, with B=stem-final and C=desinential, indicating that the nominative plural ending, like the nominative singular, determines the stress pattern. This pattern includes zero-, *o*-, and *a*-nouns. The *o*-nouns *dévevo* 'tree' and *óblako* 'cloud' represent types B and C, respectively. Masculine zero-nouns *kol* 'stake', *klok* 'shred', *kopýl* 'part of sleigh runner', *krjuk* 'hook', *list* 'leaf', *loskút* 'scrap', *prut* 'twig', and *suk* 'bought', are an entire class with type B stem-final, rather than end-stress, while the large class of masculine zero-nouns such as *górod* have the stress of neuter end-stressed type C. The masculine *a*-noun *djádja* 'uncle' has a plural variant with these endings and has *o*-noun type C stress in the plural. Its singular stress (*djádja*) cannot be explained on the basis of morphology and has to be viewed as an instance of an *a*-noun anomalously using the C=initial realization in the singular.

Our examination of all the permutations and combinations of the nominative plural *-i* and *-a* endings, and the genitive plural $-\emptyset$ and *-ov/-ej* endings, has shown us four pairs of endings and an implication for the stress system in the case of each pair. As seen in our survey of plural stress, type B can be realized by both predesinential and desinential stress, while type C is realized by both desinential and initial desinential mobility. This yields three possible oppositional situations within a morphological type:

- predesinential (B) vs. desinential (C), typical for neuter nouns (*kolěsa* 'wheel, nom. pl' vs. *zermalá* 'mirror, nom. pl.');
- desinential (B) vs. mobile (C), typical for the masculine (*jazykí* vs. *vólki*);
- predesinential (B) vs. mobile (C), typical for feminine nouns (*kolbásy* vs. *gólovy*).

Based on these stress realizations, we can say that certain stress types are implied by certain desinences, which then enter into a very symmetrical markedness relationship, as follows:

- The *-a* desinence of the nominative plural is marked for the opposition of stem-final stress to desinential stress (e.g. *kolěsa* vs. *gorodá*), which we interpret systematically as an opposition of stressed types B vs. C, respectively.
- The *-i* nominative plural desinence is marked for mobility of type C stress, but it is unmarked for the realization of type B stress, since different realizations of type B can occur with this desinence.
- The $-\emptyset$ ending of the genitive plural is marked only for stem-final type B stress, but it is unmarked for the realization of C stress.
- The *-ov/-ej* genitive plural ending is totally unmarked. All four realizations of types B and C can occur with this ending.

Thus, we can see that every possible markedness situation of types B and C is covered within the four nominative and genitive plural endings. This ranges from the greatest markedness of both stress types in the *-a* ending, ranging through the two types in which either type B or type C stress is marked (nominative *-i* and genitive $-\emptyset$), to the least markedness, where neither type B nor C is marked (genitive plural *-ov/-ej*).

3. Stress patterns determined by semantic factors

We have examined soft-stem *a*-nouns which have the plural endings *-i*, *-ej* and, therefore, have an expected plural type B realization of the zero-noun type. The hard-stem nouns in this category present a stress irregularity, with their type B plural end-stress, occurring together with regular *a*-noun plural morphology. Here, the semantic factor of degree of assimilation of the word into the language

plays a role. A large number of Turkic, Oriental, and Church Slavonic loans belong to this category, e.g. *tamadá* 'toastmaster,' *čalmá* 'turban,' *xurma* 'persimmon.' While the previous section presented abundant morphological evidence for stress deviation, in this case the factor seems to be more semantic, since a large number of *a*-nouns with end-stressed plurals refer to exotic objects and terms of the East. Church Slavonicisms do not belong to this semantic group, but are not common words and very likely, incompletely assimilated. As noted above, at least the soft-stem members of this group have largely regularized their stress through the use of a mixed declensional paradigm.

Note that this anomalous stress pattern bears the stress pattern of another morphological type. However, there are rare cases in which anomalous stress is not found as regular anywhere else in the language, such as the pattern *djádja/djad'já*. The *a*-nouns *derévnja* 'country' and *dólja* 'share' have a similar singular anomaly, combining what appears to be type A stress in the singular with types B or C in the plural. The cases of *djádja* and *dólja* can be explained by saying that the singular is really using the zero-noun and *o*-noun realizations of type C, but the word *derévnja*, with its singular medial stress, remains a true anomaly. The masculine nouns *postáv* 'millstone' and *kokíl* 'metal press' also appear to combine a singular type A stress with plural end-stress and must be considered anomalous. A similar situation can be also be observed in words with the agentive suffixes *-tel'* and *-or*, which combine singular medial stress with plural end-stress. The word *učítel'* 'teacher' is the only word with the *-tel'* suffix to have this stress pattern. Interestingly, this word represents another instance of a variant stress, in a slightly different meaning, coexisting with a highly irregular stress, since a normal type A stress also occurs with the word *učítel'* with the meaning 'teachers of a particular doctrine.' A number of loan words with the borrowed suffix *-or* also combine singular medial stress with plural end-stress, e.g. *instrúktor* 'instructor,' *korréktor* 'proofreader,' *diréktor* 'director,' *inspéktor* 'inspector.' In fact, this pattern is so regular with *-or* suffixed agents, that these words could be classified as a regular pattern. The only way they can be made compatible with the vast remainder of Russian stress patterns is to consider that on the underlying level they are really initially stressed, with the particular suffix *-or* causing the stress to advance from the

initial syllable to the second syllable. A semantic connection is at work in spreading the minor pattern of *-or* suffixed words to the semantically similar case of *učítel'*.

4. Productivity and frequency

One of the innovations of my stress system is its regularization of the stress inventories of all morphological classes. As noted, the inventory of zero-nouns, *a*-nouns, and *o*-nouns regularly contains the five groups AA, BB, CC, CB, BC but, of course, the realizations of these types differ in each morphological class. One of Zaliznjak's criticisms of this system is that it sets up small and insignificant types as regular, leaving more important types as irregular. As shown above, many of the types commonly thought to be irregular really are not, and can be integrated into the five basic types I posit. Next, I would like to show that there is a similar hierarchy of productivity and frequency, which might be ultimately relatable to a form of markedness, among my five basic types, in all major morphological types of the noun. In order to establish this gradation, I consider productive types as being at the top of the scale. Next, I have listed unproductive types which contain frequently used, common, non-derived words. Last come the types which either consist of rarely used words or only of derived words. For determining the factors of productivity and frequency, I am following the accentual chapters of Paul Garde's *Grammaire russe*, but I am applying them in a very different way, since Garde's accentual categories are completely different than mine.

Both statistically and in terms of productivity, the type A accent is the most productive and frequent in all morphological categories. Let us consider zero-nouns in more detail. Following descriptions of frequency, we can immediately list the two immobile types AA and BB (immobile end-stress) first and second, as the two most productive types (Garde 1980:176-9). A third productive type, that of *górod*, is usually listed under zero-nouns. But, due to the plural morphology of this word-class, which has its nominative plural in *-a*, rather than *-i*, it is not strictly correct to list words with *-a* plural in the same

morphological class as all other zero-nouns. If these words are excluded, we are left with two unproductive classes, each containing about fifty words, representing the CC pattern (e.g. *volk*) and the CB pattern (minus *-a* plurals; e.g. *sad*, *nos*). Since the CC pattern contains monosyllables as well as polysyllables, according to Garde (pp. 178-9), while the CB types with *-i* plural only have monosyllables, I would classify CC as higher on the scale than CB. The last type on the scale is BC, which only contains four words: *gvozd'* 'nail', *kon'* 'horse', *červ'* 'worm', *gruzd'* 'kind of mushroom'. Therefore, the gradation is AA, BB, CC, CB, BC. In the *a*-noun class, AA and BB are also the most productive, even though BB is realized differently than the BB zero-noun type (Garde pp. 151-3), confirming the correctness of classifying these types together. The CC (e.g. *ruká*, *nogá*, *golová*) type, although numerically small, is of extremely high frequency and often denotes body parts, such as *ruká* and *nogá*. The CB type is similarly small in number, and contains high frequency words, such as *vodá*, but of somewhat lower frequency than the CC class, according to the calculations of the frequency dictionaries of both Zasorina (1977) and šteinfel'dt; for example, the highest frequency item in the CC class, *ruká*, was listed at 1590 and 740 occurrences in the two dictionaries, while the highest item in the CB class, *zemljá*, occurred 1074 and 290 times, respectively. The BC class, although containing more lexical items, is of very low frequency, according to Garde's data (p. 153). Therefore, we could consider that these nouns can be grouped on the same scale as zero nouns: AA, BB, CC, CB, BC. The neuter *o*-nouns present AA (e.g. *bolóto* 'swamp') as "the most productive type," according to Garde (p. 182). Our BB type (e.g. *licó* 'face'), with singular end-stress and plural stem-final stress, contains around 60 of the most common words. The CC type (e.g. *óblako*), with singular initial stress and plural end-stress, contains a small number of lexical items which are non-derived and very common. The neuter types CB and BC are both extremely rare. The type CB is often said to contain a single lexical item, *ózero*, but I would add *dérevo* as a second CB noun. The BC type contains only derived words, mostly in the *-stvo* and *-c* suffixes, such as *veščestvó*, *slovcó*. This stress type is called "very rare" by Garde (p. 183). Therefore, on a scale of common word use, implying the existence of non-derived items, the BC type

could be placed last on our list, giving us the same pattern for all three noun types. Admittedly, one may make the opposite argument about whether the CB or BC neuter type is more marked, since type CB contains only two words. Certainly, both types are very minor categories. In any case, it is clear that the BC type is lower on our scale than CB in zero-nouns and *a*-nouns and, furthermore, it is clear that the mixed CB and BC types are always less productive and frequent than the pure AA, BB, and CC types. This lends confirmation to my entire system of three basic types with variable realizations, since, to my knowledge, it is the only existing stress system which admits differing realizations in the non-stem-immobile B and C basic types. We have just examined the situation of productivity and frequency within the regular system of accentual paradigms, which is based on a maximal three-way opposition in either singular or plural.

5. Resulting stress system

In this paper, as compared to previous treatments of the subject, I have eliminated many instances of stress irregularity by separately considering singular and plural noun morphology. Since the stress type so closely follows the morphology, particularly the unmarked nominative case desinences, it could be said that the stress serves as an accessory mark of the declension class, even to the extent of pinpointing the use of the four types of mixed declensional paradigms. In the majority of cases, syntactic gender, declensional class (which could be called morphological gender; see Zaliznjak 1967:138-40), and accentual paradigm all agree; for example, masculine, zero-noun, and the proper stress realizations. When syntactic gender does not agree with the unmarked declensional paradigm for that type, as in the case of masculine *a*-nouns, the stress paradigm virtually always follows the declensional pattern, rather than the syntactic gender. Instances which do not follow the morphological pattern can be divided into two types:

1. The type not only is irregular for the particular morphological paradigm; it does not occur in any declensional class. This is typical of cases where a

singular medial stress, usually the mark of type A, is combined with plural B or C: *derévnja, učitel', diréktor*. It also occurs in the word *postáv*, in which the zero-noun singular has an irregular realization of stem-final stress in a non-stem-immobile paradigm. Since stem-final is a mark of type B, it could be said that this is an irregular stem-final realization of type B in the singular subparadigm of a zero-noun, instead of the expected end-stress.

2. The type is irregular for the declensional class of the subparadigm, but does occur elsewhere. An example of this type can be found in the *a*-nouns which have type B plural end-stress: *stat'já* 'article,' *tamadá* 'toastmaster,' *murzá* 'Tatar title,' *xodzá* 'hajji,' *xanzá*, etc. A large subset of such nouns belongs to the masculine syntactic gender. In these cases it can be said that this irregular plural stress is actually the regular stress for the unmarked masculines, which belong to the zero declension class, rather than to the *a*-nouns. The opposite case is seen in the zero-noun *kazák*, which has a plural stem-final stress typical of *a*-nouns.

Thus, we have seen that the subject of stress can, to a large degree, be untangled if the basic concepts of complementary distribution and markedness are recognized. This has been possible due to our use of the full paradigm for the establishment of lexical vs. non-lexical stress types (A vs. B/C), but the number subparadigm for the establishment of the opposition of the two non-lexical types (B vs. C). The resulting pattern differs greatly from the usual listing of numerous, unrelated stress patterns, which has typified much of synchronic accentology.

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