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1. *INTRODUCTION* In recent years, the paradigmatic method of classifying Russian stress patterns, first devised by Leonard Bloomfield (Bloomfield and Petrova 1945:333, 334), has come to be applied in a number of studies (e.g., Steele 1975 and Fedjanina 1976). This system uses the symbol A to designate stem-stress, B for desinential stress, and C for mobile stress; within the noun, each letter applies either to the singular or plural, giving each noun a two-letter designation of its paradigmatic stress. As noted by Steele (1975:98), Bloomfield's method relies on the fact that the singular and plural of the Russian noun each have their own particular pattern of stress mobility (stress type C), in spite of the different declensional classes, e.g., noun singular mobility involves end-stress in all cases except the initial stress of the accusative singular (e.g., *vodá* 'water', *vódu*, *vodý*, *vodě*, *vodě*, *voděj*), while noun plural mobility calls for initial stress in direct cases (nominative and accusative, when equivalent to nominative), but end-stress in the oblique cases (including accusative, when equivalent to genitive), e.g., *noči* 'nights', *noči*, *nočěj*, *nočáz*, *nočám*, *nočámi*. Thus, the word *noč* 'night', with its singular stem-stress and plural mobility, is designated AC, while *vodá*, with singular mobility and plural stem-stress, is classified as CA. Recent extensions of this system (e.g., Fedjanina 1976) have used the two-letter designation for the adjective and verb as well. Instead of referring only to the grammatical category of number, as applied to the noun, the two-letter symbol refers to long-form and short-form in the adjective, and tense (present and past) in the verb. We shall refer to these portions of paradigms (singular, plural, long-form, short-form, present, past) as SUBPARADIGMS.

The present paper is an attempt to redefine the stress types of Modern Russian in order to demonstrate many instances of patterning and complementary distribution that would otherwise go undetected. Using Bloomfield's original idea of a two-letter index for each word, we shall define each of the three letters (A, B, and C) in

such a way as to show that each part-of-speech (including subcategories within the noun) contains exactly the same inventory of stress types at a deeper than surface structural level, although the surface manifestations of A, B, and C will vary predictably in the different morphological categories. Attempts to operate with stress paradigms have hitherto failed to systematically incorporate various sorts of complementary distribution occurring between inflectional categories. Our major premise is that if hypothetical inflectional classes *x* and *y* have the stress types *a* and *b*, respectively, in complementary distribution, it is possible to refer to both types as a single type *c*, provided that consistent general principles can be found to define the new broad type *c*.

2. *STRUCTURAL PATTERNS OF RUSSIAN STRESS.* Let us observe an important instance of stress patterning, as exemplified by the Russian noun. There are numerous nouns with a constant, unpredictable stem stress, identical in both singular and plural subparadigms, e.g., *pádčerica* 'step-daughter', *psixólog* 'psychologist', *sošínénie* 'composition', etc. Such a stress may fall anywhere between the word-initial and stem-desinence boundaries. However, there are also many instances of a stem-stress that occurs in only one of the two subparadigms (singular or plural), where the stress of the other subparadigm differs from that of the first. Such stem-stress has often been termed type A (cf. Bloomfield and Petrova 1945:334, Fedjanina 1976:31-2, Steele 1975:99-101), using the same symbol as is used for the variety with the identical stress on the stem in both paradigms. However, each instance of stem-stress that is not constant over both subparadigms really turns out to be predictable, based on the morphological class in which it occurs, in contrast to the unpredictable stem-stress that is constant (the AA type). Let us distinguish these two sorts of stem stress by calling identical stress in both subparadigms PAIRED STEM-STRESS (e.g., *pádčerica*, etc.); the other variety can then be termed UNPAIRED. We can now illustrate the predictable nature of unpaired stem-stress. Stem-stress in the singular of nouns in $-\beta^2$ can co-occur with plural end-stress (e.g., *górod*, nom. sing. 'city', *gorodá*, nom. plur.; *kólokol*, nom. sing. 'bell', *kolokolá*, nom. plur.), as well as with plural mobile stress (e.g., *šélud'*, nom. sing. 'acorn', *šéludi*, nom. plur., *šeluděj*, gen. plur.; *ókun'* nom. sing. 'perch', *ókuni*, nom. plur., *okuněj*, gen. plur.). Notice that all these instances of $-\beta$ noun singular unpaired stem-stress are really predictably initial in their stress. Another characteristic case is found in the plural of nouns in $-a$. Unpaired stem-stress may co-occur with end-stressed and mobile-stressed singular subparadigms (e.g., *kolbásy*, nom. plur. 'sausage',

kolbasá, nom. sing.; *skorlúpy*, nom. plur. 'egg-shell', *skorlupá*, nom. sing.; *vódy*, nom. plur. 'water', *vodá*, nom. sing.) All these cases illustrate a stem-stress that is predictably pre-desinential.³ Therefore, it would be a mistake not to recognize predictable initial and pre-desinential stress as structurally distinct from the paired variety of stem-stress that may occur on any stem syllable in any inflectional class, and is identical in both subparadigms.

We shall incorporate this structural principle into our stress notation by considering that only constant, unpredictable stem-stress over both subparadigms is to be designated as type A. The use of A in one subparadigm will, therefore, redundantly imply the mark AA over both subparadigms. The Bloomfield system, as used by Fedjanina (1976) has two drawbacks. In the first place, as we have seen, the same symbol (A) is used for any stem-stress, whether unpredictable, or automatically initial or pre-desinential. Secondly, the symbol C is applied to all mobility within a subparadigm, in spite of the fact that there are two fundamentally different types of mobility. The type found in nouns, adjectives (short-form), and the verbal past tense is an alternation of initial ~ desinential stress, shifting between the first word-syllable and the first desinential syllable (e.g., *gólovy*, nom. plur. 'head', *golovám*, dat. plur.; *skóvorodu*, acc. sing. 'frying pan', *skovorodá*, nom. sing.). Mobility in the present tense of verbs, on the other hand, is invariably a shift between the pre-desinential and first desinential syllables (e.g., *napíšet*, 3rd pers. sing. 'he will write', *napíšú*, 1st pers. sing. 'I will write').

As noted above, the two varieties of predictable stem-stress are the initial and pre-desinential types. As we shall see in our review of Russian stress types below (sections 3-5), initial stress within a subparadigm is in complementary distribution with the initial ~ desinential mobile stress type, while pre-desinential stem-stress is in complementary distribution with pre-desinential ~ desinential mobility. In other words, in any given inflectional category, such as the *a*-noun singular or the verbal present tense, only one of the complementarily distributed varieties can occur. The *a*-noun singular has initial ~ desinential mobility, but no predictable initial-stressed type, while the verbal present subparadigm has pre-desinential ~ desinential mobility, but no purely pre-desinential type. We shall consider the complementarily distributed stress types to be realizations of more basic functional entities. The entity which may either have initial or initial ~ desinential stress is limited to stress on either the first syllable of the word or the desinence and shall be referred to as type C. The type comprised of pre-desinential and pre-desinential ~ desinential stress may have stress

on either side of the stem-desinence boundary and shall be termed type B in our system. We can graphically illustrate the permissible stress domains of the three basic paradigmatic types A, B, and C as follows (# = word-boundary, + = stem-desinence boundary, _ = potentially stressed syllable, ... = absence of potential stress):

Type A: # _ + ...

Type B: # ... + _ ..

Type C: # _ ... + _ ..

Type A is defined as stem-stress on any stem-syllable, so that the only fixed limit on the number of potential places of A stress is the length of the stem itself. Types B and C share the common property of having two potential locations of stress apiece, which are always contiguous to either a word or desinence boundary. Type B stress is always on either side of the stem-desinence boundary, while type C stress is always immediately after either the word or the desinence boundary.

This paper shall attempt to demonstrate that, with the use of the above definitions, every inflectional category of Russian can be said to possess the identical⁴ inventory of stress paradigms. This follows from our hypothesis that, with minor exceptions, any given subparadigm will have precisely one regular realization of types B and C. Therefore, a knowledge of the relevant morphological information (e.g., *a*-noun singular), plus the mark C tells us that the stress must be mobile, with the initial ~ desinential shift (e.g., *golová*, nom. sing., *gólovu*, acc. sing.).

According to our scheme, stress on the first syllable of the desinence is in the domain of types B and C. Although this stress is potentially ambiguous, in reality such desinential stress in a subparadigm can readily be assigned to either type B or C, since the other realization will be unambiguous. For example, in the singular of *a*-nouns, there occur both initial ~ desinential mobility as well as constant desinential stress. Since the initial ~ desinential mobility can only be a manifestation of type C, the ambiguous desinential stress can be considered a manifestation of type B in this particular subparadigm. Conversely, in the plural of *o*-nouns, desinential and pre-desinential are the two types other than A; since pre-desinential is unambiguously a realization of our type B, the desinential stress in this inflectional class may be assigned to type C.

Let us now proceed to verify our hypotheses by reviewing the stress types that occur within nouns, adjectives, and verbs. In order to provide a basis for the comparison of our system with a more surface oriented approach, we shall often refer to the solution advanced by Fedjanina (1976).

3. **NOUN STRESS** Fedjanina's method leads to the establishment of six basic stress types for masculine \emptyset nouns, as follows: *rak* 'crayfish', AA; *stol* 'table', BB; *gvozd'* 'nail', BC; *dom* 'house', AB; *zub* 'tooth', AC; *kol* 'stake', BA. Of these six types, an A designation appears three times in the singular, representing Fedjanina's category of stem-stress (e.g., *rak*, *dom*, *zub*). Since these examples are monosyllabic, they alone cannot tell us if the stem-stress is alike in all three cases. If polysyllables are also considered, we see that when the singular A stress is paired to A in the plural (type AA), stress may fall on any constant stem syllable and cannot be predicted even with the aid of grammatical information (e.g., *žavoronok* 'lark', *želúdok* 'stomach', *krokodíl* 'crocodile'). However, when the stem-stressed singular A is found together with a plural stress type other than A, the stress is no longer unpredictable, but is word-initial.⁵ Thus, words classified by Fedjanina as AB and AC have initial stress in all their singular forms, rather than an unpredictable stem-stress (e.g., AB type *kólokol* 'bell', *téterev* 'grouse', *pérepel* 'quail'; AC type *góspital'* 'hospital', *lébed'* 'swan', *vólos* 'hair', etc.). Therefore, the single indication of stem-stress (A) is decidedly insufficient in AB and AC types, and a notation is required that can unambiguously point to predictable initial-stress in the masculine singular. The C indication can be used instead of A for this purpose. The usual definition of C is initial \sim desinence mobility in nominal paradigms (e.g., *gólubí*, nom. plur. 'dove', *goluběj*, gen. plur.). Fedjanina's scheme, however, shows type C to be missing in the masculine \emptyset singular. However, in conformity with our rule of complementary distribution, the absent mobile C type should be interpreted as a case of type C being realized by constant initial stress in the morphological environment of masculine \emptyset -noun singular. If we redefine the meaning of type C in this way, our six examples take on the following classifications: *rak*, AA; *stol*, BB; *gvozd'*, BC; *dom*, CB; *zub*, CC; *kol*, BA. We may add that this use of the symbol C also accounts for the mobility acquired by otherwise initially stressed nouns, when used in the second locative case in stressed \acute{u} , e.g., *sad*, nom. sing. 'garden', *sáda*, gen. sing., with *v sadú* 'in the garden'. Constant plural end-stress makes *sad* a noun of the CB type; the presence of the stressed \acute{u} implies a predictably initial stress in all other singular case forms.

We may observe that as a result of our reinterpretation, only one singular subparadigmatic type is labeled A (*rak*, AA), while all other singular designations are either B or C, with B defined as desinence stress and C defined as initial stress.⁶

In the masculine \emptyset -noun plural, it is obvious that type B is realized by desinence stress (e.g., *domá*, *domá*, *domóv*, *domáx*, *domám*, *domámi*; *gorodá*, *gorodá*, *gorodóv*, *gorodáx*, *gorodám*, *gorodámi*), while C is manifested by an initial \sim desinential stress alternation (e.g., *zúby*, *zúby*, *zubóv*, *zubáx*, *zubár*, *zubámi*). The only departure from this scheme is found in the type represented by the word *kol*, termed BA by Fedjanina, which violates our hypothesis that subparadigmatic A can only be paired with another A. However, it may be observed that all of the so-called A type plurals of this kind have the plural ending $-ja$ (e.g., *kól'ja*, *kól'ja*, *kól'ev*, *kól'jax*, *kól'jam*, *kól'jami*; *kólos*, nom. sing. 'ear of grain', *kolós'ja*, *kolós'ja*, *kolós'ev*, *kolós'jax*, *kolós'jam*, *kolós'jami*), with a minor exception.⁷ If we follow Worth (1968:790) in treating this plural morpheme as $-#j-$, we can assume stress on the zero (e.g., *kol'+#jja*) which automatically moves to the left according to Halle's rule (1975:107) that 'if a stressed syllable is deleted, the stress is transferred to the immediately preceding syllable.' This permits us to state that the realization of stress type B in both singular and plural of masculine \emptyset -nouns is stress on the first desinential syllable.

Nouns ending in $-a$ in the nominative singular have been grouped by Fedjanina into the following classes:⁸ *lípa* 'linden', AA; *tamadá* 'toastmaster', BB; *gubá* 'lip', BC; *gólová* 'head', CC; *žená* 'wife', BA; *vodá* 'water', CA. In the singular, we again see that cases of A stress, paired to A in the plural (AA) have an unpredictable placement of stress somewhere on the stem (e.g., *žúželica* 'carabus', *molékula* 'molecule', *kulebjáka* 'Russian meat pie'). In the singular, type B is realized by predictable end-stress, while C is mobile (initial \sim desinential), e.g., *gólovu*, acc. sing., *gólová*, nom. sing. In the plural, the initial \sim desinential mobility can also be assigned to type C (e.g., *gólovy*, nom. plur., *golovám*, dat. plur.). There is also a plural stem-stressed type, e.g., *žená*, termed BA by Fedjanina, which really turns out to be a case of predictable pre-desinential stress in the plural, e.g., *strekózá*, nom. sing. 'dragonfly', *strekózy*, nom. plur.; *kolbasá*, nom. sing. 'sausage', *kolbásy*, nom. plur. The CA class can also be assumed to have plural pre-desinential stress, although only one-syllable stems are found in this group (e.g., *vodá*, nom. sing., *vódy*, nom. plur., *vódam*, dat. plur.). Thus, we have already assigned individual realizations of stress to both B and C in the plural (B = pre-desinential, C = initial \sim desinential). However, there is also a class of words with constant plural end-stress (e.g., *tamadá*, *čabalá* 'bondage'). This presents a problem for our system, since our hypothesis specifies that in a given subparadigm B and C may have only a single realization each. We can resolve this dilemma of two potential realizations of a single

type by taking note of Red'kin's comment (1971:31) that *a*-noun plural end-stress is found mainly in Turkic, Iranian, and Greek loan words. Significantly, as these words have become assimilated into Russian, they have taken on pre-desinential stress, according to Red'kin. Kiparsky (1962:196) has observed that 'most of these words are rare technical terms, exotic, historical, or religious concepts which are hardly alive anymore.' Hingley (1952:195) states that 'the fixed final paradigm includes no really common words.' Coats (1976:7) points out that the *a*-noun pre-desinential plural should be considered the regular one, while the end-stressed type should be classified as irregular. Therefore, if we exclude this class of mainly non-assimilated foreign words, we are left with our principle intact, according to which nouns in *-a* realize type B as desinential stress in the singular and pre-desinential in the plural, while C has initial \sim desinential mobility in both numbers.

Feminine nouns with the zero-ending in nominative singular can be grouped into two classes, considering all nouns that are used in the two subparadigms of singular and plural. They are represented by *ladón'* 'palm', AA, and *noč'* 'night', AC, according to Fedjanina (1976:106). We may reinterpret the AC type as CC, since initial stress in the singular is the rule,⁹ e.g., *óblast'* 'district', *védomost'* 'news'. We may add the mixed declension masculine noun *put'* 'way' to this list, since it is declined like feminine \emptyset -nouns, except for the instrumental singular (*putém*). It has end stress in both singular and plural, and can be classified as BB. Since A, B, and C types are all the same in the feminine \emptyset -nouns, as compared to the masculine \emptyset -nouns, we do not have to separate them for the purposes of stress classification, as does Fedjanina (1976:39, 106), but we can henceforth speak of a single class of \emptyset -nouns, regardless of their gender.

Nouns with nominative singular in *-o* consist of the following types, according to Fedjanina (1976:116): *jábloko* 'apple', AA; *očkó* 'point', BB; *móre* 'sea', AB; *čisló* 'date', BA; *úxo* 'ear', AC; *plečó* 'shoulder', BC. In the singular, the patterns termed AB and AC all have predictable initial stress (e.g., *zérkalo* 'mirror', *krúževo* 'lace', *úxo*), so that they are clearly a manifestation of type C initial stress. In the plural, the unpaired A type (i.e., BA, *čisló*, nom. sing., *čísła*, nom. plur.) is a case of pre-desinential plural stress, or type B, cf. the nominative plurals *men'sínstvá* 'minorities', *veretěna* 'spindles', *rešěta* 'sieves', with nominative singulars *men'sínstvó*, *veretenó*, *rešetó*.¹⁰ We may note that Fedjanina has assigned the noun *ózero* 'lake' (*ozěra*, nom. plur.) to type AA, due to its stem-stress in both singular and plural; our system accounts for the shift in stem-stress by considering the stress type to be

CB, with an initial stress in the singular and a pre-desinential in the plural. Since type B has been defined as pre-desinential for the *o*-noun plural, we can define the plural desinential stress as type C, on the basis of such cases as *morjá* 'seas', *slová* 'words', etc., which are of the CC type, with C = initial in the singular and C = desinential in the plural. The isolated five cases of neuter plural mobility are anomalous in our system (*úxo*, *óko* 'eye (archaic)', *plečó*, *kryl'ócó* 'porch', *tauró* 'brand'). A comparison between Fedjanina's and our classification of noun stress types can be found in Table 1.

I. Fedjanina's Classification.

Masculine (\emptyset)		Feminine (<i>-a</i>)		Feminine (\emptyset)		Neuter (<i>-o</i>)	
rak	AA	lípa	AA	ladón'	AA	jábloko	AA
stol	BB	tamadá	BB	noč'	AC	ózero	AA
gvozd'	BC	gubá	BC			očkó	BB
dom	AB	golová	CC			móre	AB
zub	AC	žená	BA			čisló	BA
kol	BA	vodá	CA			úxo	AC
						plečó	BC

II. Present Proposal.

\emptyset -Nouns	<i>a</i> -Nouns		<i>o</i> -Nouns		
rak, ladón'	AA	lípa	AA	jábloko	AA
stol, put', kol	BB	žená	BB	čisló	BB
zub, noč'	CC	golová	CC	móre	CC
gvozd'	BC	gubá	BC	očkó	BC
dom	CB	vodá	CB	ózero	CB
		tamada	B-*	plečó	B-*
				úxo	C-*

*Anomalous in plural.

Rules for B and C realization:

\emptyset -Noun:	Singular:	b = desinential	c = initial
	Plural :	b = desinential	c = initial \sim desinential
<i>a</i> -Noun:	Singular:	b = desinential	c = initial \sim desinential
	Plural :	b = pre-desinential	c = initial \sim desinential
<i>o</i> -Noun:	Singular:	b = desinential	c = initial
	Plural :	b = pre-desinential	c = desinential

TABLE 1. Stress types of the Russian noun.

In contrast to Fedjanina's traditional gender-oriented approach, we have listed only three declensional classes, based on the nominative singular ending: \emptyset -, -a, and -o nouns. Although each of the three classes has its own set of surface stress realizations, all three are alike in having the same five deep stress paradigms in common: AA, BB, CC, BC, CB. Having established the existence of these three basic declensional classes for the purposes of stress classification, we can now observe a remarkable case of the patterning of the B and C realizations within these three classes. A total of seven possible realizations exist for types B and C together, if grammatical number is included in the indication, as follows:

- | | |
|----|--------------------------------|
| | <u>Singular</u> |
| 1. | B = desinential |
| 2. | C = initial |
| 3. | C = initial \sim desinential |
| | <u>Plural</u> |
| 4. | B = desinential |
| 5. | B = pre-desinential |
| 6. | C = initial \sim desinential |
| 7. | C = desinential |

Since there are three declension classes, the total number of combinations of these classes in sets of three, two, and one members, is also seven: (\emptyset -, a-, o-; a-, o-; \emptyset -, o-; \emptyset -, a-; \emptyset -, a-; o-. As shown in Table 2, each of the seven realizations of B and C stress is paired with one of the seven possible combinations of declensional classes.

Declensional Class Sets	Common Realizations of B and C
1. All nouns (\emptyset -, a-, o-)	B = desinential in singular
2. Non- \emptyset nouns (a-, o-)	B = pre-desinential in plural.
3. Non-a nouns (\emptyset -, o-)	C = initial in singular.
4. Non-o nouns (\emptyset -, a-)	C = initial \sim desinential in plural.
5. \emptyset -nouns	B = desinential in plural.
6. a-nouns	C = initial \sim desinential in singular.
7. o-nouns	C = desinential in plural.

TABLE 2. Patterns of declensional classes and their realizations of stress.

Within Table 2, number one illustrates the least marked realization, while the latter three cases are the most marked within the noun, each applicable to only a single declensional type. We may assume

that such a precise instance of patterning is not accidental, but a confirmation of the correctness of our elaborated scheme and redefinition of stress paradigms.

4. *ADJECTIVE STRESS* The same sort of analysis can be extended to adjectives, in which the two subparadigms refer to the long form and short form. Fedjanina's classification has the following five basic types (the first letter refers to the long form): *gotov*- 'ready', AA; *gorjač*- 'hot', AB; *bystr*- 'quick', AC; *smeš/n*- 'funny', BB; *plox*- 'bad', BC. Here, the mobility of C (initial \sim desinential) occurs only in the short form, in which the feminine form in -a is desinential, in contrast to the other forms (e.g., *mólod* 'young', *mólodo*, *mólody*, as opposed to *molodá*). In the long form, no surface mobility appears, so Fedjanina assumes that no type C exists for the long form. However, in the case of Fedjanina's AB and AC types, we can see that the long form is predictably pre-desinential in its stress (e.g., AB *velíkij* 'great', AC *dešěvyyj* 'cheap'), so that these two types should be reinterpreted as BB and BC, respectively, with a long-form realization of type B equivalent to pre-desinential. The remaining long-form realization, desinential stress (e.g., *smešnoj*, *ploxoj*), can now be assigned to type C, giving B and C a single realization each in the long form adjective. Within the short form, Fedjanina's scheme, according to which B refers to desinential stress (e.g., *velík*, *velikó*, *velikí*, *veliká*) and C refers to initial \sim desinential mobility, requires no changes. Consequently, adjectival stress types appear as follows, according to our system: *gotov*-, AA; *gorjač*-, BB; *plox*-, CC; *bystr*-, BC; *smeš/n*-, CB.¹¹ A comparison of Fedjanina's and our results for the adjective appears in Table 3. It should be noted that our inventory of basic adjectival stress types is identical to those established earlier for the three declensional classes of nouns.

Fedjanina's Classification		Present Proposal	
<i>gotov</i> -	AA	<i>gotov</i> -	AA
<i>gorjač</i> -	AB	<i>gorjač</i> -	BB
<i>bystr</i> -	AC	<i>plox</i> -	CC
<i>smeš/n</i> -	BB	<i>bystr</i> -	BC
<i>plox</i> -	BC	<i>smeš/n</i> -	CB

TABLE 3. Stress of the Russian adjective (long form/short form).

5. *VERBAL STRESS* The verbal subparadigms consist of present (or non-past) and past tense. We shall make use of the Jakobsonian one-stem system in our discussion (cf. Jakobson 1948 and Townsend 1968: 81-114), since the use of the Karcevski and Kuznecov systems by Red'-kin (1971:116) and Fedjanina (1976:185), respectively, make their analyses needlessly cumbersome.

Aside from type A unpredictable stem-stress, the verbal present tense has two basic stress varieties: pre-desinential \sim desinential mobility (e.g., *napišet*, *napišú*), and constant desinential stress (e.g., *vedú*, 1st person sing. 'lead', *vedét*, 3rd person sing.; *govorjú*, 1st person sing. 'speak', *govorít*, 3rd person sing.). According to our definitions, the pre-desinential \sim desinential mobility must be assigned to type B, placing the ambiguous desinential stress of the present tense in type C. In contrast to the uniform pattern of the verbal present-tense stress, which applies equally well to all stem types, the stress patterns found in the past tense require the recognition of four categories of stem-types. Both types of non-suffixed verbs, obstruent and resonant stems, agree in their realization of type B as pre-desinential in the past tense (e.g., *podstrígla* 'shear' fem., *prižála* 'squeeze' fem. from the stem *prižm-*); however they are in complementary distribution with regard to type C, obstruent stems having desinential stress and resonant stems having the initial \sim desinential alternation (e.g., *prinesló* 'bring' neut., *prineslá* fem.; *načalo* 'begin' neut., *načalá* fem. from the resonant stem *načn-*). Suffixed verbs have a less complex inventory of past-tense stem types. Two sorts of type B realizations are found, also in complementary distribution. Almost all suffixed verbs realize past-tense B stress as pre-desinential, just as the non-suffixed verbs do. However, verbs with non-syllabic roots followed by the *a*-suffix (termed "n/sA" by Townsend 1968:102-3) have a pre-desinential \sim desinential realization of type B in the past tense (e.g., *sabrálo* 'take' neut., *sabralá* fem.). There are a few isolated anomalous cases. A single *i*-suffix verb, *rodí-* 'give birth', has the pre-desinential \sim desinential alternation in the past tense (e.g., *rodíli* plur., *rodilá* fem.). Conversely, there are three cases of pre-desinential B stress in the past tense of non-syllabic *a*-stems (instead of expected pre-desinential \sim desinential): *rža-* 'neigh', *s/la-* 'send', *st/la-* 'spread' (curiously, the latter two verbs are homophones in past and infinitive forms, due to the phonological rule *stl* \rightarrow *sl*). It should be mentioned that many non-suffixed resonant stems with a type C initial \sim desinential past-tense stress now admit a variant type B pre-desinential \sim desinential stress, often qualified in dictionaries as colloquial in style (e.g., *prólilo* 'spill' neut., *prolilá* fem. and

colloquial *prolílo*, *prolilá*). The above types of verbal stress have been summarized in Table 4.

- I. Non-suffixed
- A. Obstruent stems (past C = desinential)
- AA lez- 'crawl'
- BB (Does not occur.)
- CC nes- 'carry'
- BC mog- 'be able'
- CB gryz- 'gnaw'
- B. Resonant stems (past C = initial \sim desinential)
- AA stan- 'become'
- BB (Does not occur.)
- CC živ- 'live'
- BC obnim- \sim obnja- 'embrace'
- CB (Does not occur.)
- II. Suffixed
- A. Non-syllabic *a*-stems (past B = pre-desinential \sim desinential)
- BB s/ra- 'shit'
- CB b/ra- 'take'
- B. Other suffixed stems (past B = pre-desinential)
- AA stavi- 'put', plaka- 'cry', trebova- 'demand'
- BB prosi- 'ask', pisa- 'write'
- CC (Does not occur.)
- BC (Does not occur.)
- CB govori- 'speak', side- 'sit', kova- 'forge'

TABLE 4. Stress types of the Russian verb.

In Table 4, all verbs share present tense realizations B = pre-desinential \sim desinential and C = desinential. The stress types of the past tense, according to stem type, are as follows:

1. Obstruent: B = pre-desinential C = desinential
2. Resonant: B = pre-desinential C = initial \sim desinential
3. n/sA: B = pre-desinential C does not occur.
 \sim desinential
4. Other suffixed: B = pre-desinential C does not occur.

According to the total inventory of stress types represented in Table 4, it can be said that the verb is divided into the same basic types as are nouns and adjectives. These five basic stress types do not all occur within either suffixed or non-suffixed verbs considered alone. However, we should note that the type not found in any non-suffixed verbs (BB) is extremely common in the suffixed type, while

those types which are unknown to the suffixed variety (CC and BC) can be found in non-suffixed verbs of both the obstruent and resonant types. Comparing the verbal realizations of stress types to those of the noun and adjective, we see that all nouns and adjectives admit the realization of B = desinential stress, which is completely absent in the verb. On the other hand, the verb alone possesses the realization B = mobile.

6. *COMPARISON OF PRESENT SYSTEM TO OTHERS* Let us now indicate the relative advantages of our approach to Russian stress, as compared to several recent studies, including those of Red'kin (1971), Fedjanina (1976), Halle (1975), Steele (1975), and Levin (1975).

Red'kin's 1971 stress system provides a separate single letter symbol for each differing surface manifestation of stress in each inflectional category. Although the same letters (A, B, C, D, etc.) are used for the noun, adjective, and verb, no conclusions are drawn as to common properties, if any, that are shared by each letter symbol, such as how type C nouns are related to verbs of the same type. For example, nouns of type C in Red'kin's system have initially stressed singular forms and desinentially stressed plurals (e.g., *gorod*, *slovo*, p. 21), while C type verbs are end-stressed in the present and either end-stressed or mobile in the past (*ved-*, p. 151; *živ-*, p. 156, respectively). Halle (1975:106-7) has criticized Red'kin's treatment for its merely 'providing a taxonomy for the different accentual patterns', although 'it fails . . . to bring out certain easily observed facts'. As Halle further notes, Red'kin makes no structural use of the fact that stem-stress can sometimes be predictably pre-desinential or initial. Our system has integrated both of these facts by defining pre-desinential as the property of type B, while initial stress is proper to class C.

Fedjanina's system could be criticised for the same inadequacies as Red'kin's. As we have seen, her type A is used for three structurally different stress types: unpredictable stem-stress, pre-desinential stress, and initial stress. In addition, C is defined merely as mobility, which gives no hint as to the fact that mobility can involve either the pre-desinential or initial syllables. In treating the verbal past tense, Fedjanina errs in treating pre-desinential stress (e.g., *igrála*, fem. 'played') as stress on the 'ending', on a par with cases like *neslá*, fem. 'carried' (1976:188). Our system rigorously distinguishes pre-desinential, initial, and desinential stress types, which has led to our distinction of the two separate types of mobility as subtypes of B and C.

According to Halle's 1975 treatment of the Russian stress system, only two types of stress can regularly be generated without special

lexical marking. Since 'case endings of nouns are inherently stressed' (1975:107), the two regular possibilities are a stressed stem, which automatically cancels the stress in the desinence, generating stem-stress, and a stressless stem, which causes the stress on the desinence to remain. In order to derive pre-desinential and mobile stress, Halle resorts to special minor rules, which requires marking all those lexical items which receive such stress types. The notion that immobile stem and desinence stress is regular, while pre-desinential and mobile stress are lexically marked, is quite different from our approach. As Coats (1976:7) has observed, such an analysis would favor the rare end-stressed *a*-noun plural (e.g., *tamadý*) over the more regular pre-desinential one (e.g., *žěny*), by making the normal form lexically marked. Halle appears to be making immobility generally less marked than mobility. Rather than emphasize the difference between immobility and mobility, we have taken steps to separate stem immobility over both subparadigms (AA) from all other stress types, due to the non-predictability of the AA stress placement in a given morphological category, in contrast to the predictability of the B and C realizations, given the necessary grammatical information. It might also be mentioned that Halle's system does not set forth an inventory of stress paradigms that can be applied to all inflected words, as we have attempted to provide.

Steele (1975) shares Fedjanina's use of the A symbol to refer to unpredictable stem-stress, as well as to initial and pre-desinential stress. Thus, Steele classifies the singular subparadigm of *volk* 'wolf' as A, even though a stem-stressed \emptyset -noun singular with a mobile plural, such as *volk*, can only have initial stress. Similarly, Steele (1975:101) applies the symbol A to the plural of *zimá* 'winter' although such a stem-stressed *a*-noun plural, paired to singular mobility, can only be pre-desinential in stress. Thus, in its failure to systematically account for predictable initial and pre-desinential stress, Steele's system shares inadequacies with those of Fedjanina and Red'kin.

Levin's 1975 stress system for the noun has no indication of the distributional redundancies we have indicated. Within *a*-nouns, the rare class of constant end-stressed words (e.g., *čertá* 'line', like *tamadá*) is set up as a regular type, while singular mobility (e.g., *ruká*, nom. sing. 'hand', *rúku*, acc. sing.) is considered a 'deviation' from the pattern (1975:93). One wonders why all mobility within the plural is considered 'anomalous'. Levin never indicates that this sort of mobility is really in complementary distribution with stem-initial stress.

7. **CONCLUSION** Our attempt has been to use a structural approach to establish a coherent system of the paradigmatic types of Russian stress. Although certain anomalies occur, we may conclude that there are only three basic paradigmatic types, one with unpredictable stem-stress, and two with stress that is conditioned morphologically. Our definitions of types A, B, and C establish pre-desinential and initial stress as the marked realizations of types B and C, respectively. Desinential stress is an unmarked property common to both B and C. Interestingly, the marked stress types of B and C considered alone (pre-desinential and initial) are precisely those shared by B and C with A, while the single shared property of B and C (desinential) is unknown to type A.

Our definitions have permitted a treatment of stress in the noun, adjective, and verb that uses exactly the same criteria for classification. The results are a striking similarity of the deep stress inventories across the various parts-of-speech, in spite of the well-known surface differences. We have observed an intricate patterning of stress realizations in the inflectional classes of the noun, as well as certain realization which serve to set off nouns and adjectives from verbs. Thus, many aspects of the structure of Russian stress become apparent only with the acceptance of the basic definitions as presented above.

NOTES

1. Cases are listed in the order nominative, accusative, genitive, locative, dative, instrumental.
2. Declensional classes shall be referred to on the basis of the nominative singular ending, e.g., *stól* 'table', masculine \emptyset -noun; *slovo* 'word', o-noun; *kníga* 'book', a-noun; *dver'* 'door', feminine \emptyset -noun.
3. For discussion of pre-desinential stress, cf. Kurilovič (1962:438), Lunt (1963:96-7), Halle (1970:171), Coats (1976:1).
4. Although all basic stress types occur in the verb, one type occurs only in suffixed stems, and two types occur only in non-suffixed ones (see section 5).
5. The AB class has an initially stressed singular in the vast majority of cases. A minor departure from this pattern is formed by foreign loans in *-tor*, which have singular stress on the syllable preceding the pre-desinential syllable along with desinential stress in the plural. E.g., *instrúktor*, nom. sing. 'instructor', *instrúktorá*, nom. plur. These words also have variant plural stress that is identical to the singular, which would make them regular nouns of the AA type in our system, e.g. *instrúktory*, nom. plur. The word *učítel'* 'teacher' also has both A and B plural stress types in the plural to go with the type A singular stress, depending on different shades of meaning of the word. We may observe that the most frequent departures from our scheme are found in cases of variant stresses for stylistic difference or other shades of meaning, where one variant fits our system but the other is anomalous (e.g., *kazáki* \sim *kazákí*, nom. plur. 'Cos-

- sack', where only the desinential stress fits our scheme and the pre-desinential *kazáki*, along with singular desinential stress [*kazák*, nom. sing., *kazáká*, gen. sing., etc.] is anomalous).
6. This definition is based on use in the six primary cases, excluding the second locative in *-u*, which is not formed for all nouns.
 7. The words *zubók* 'tooth (dim.)', *glazók* 'eye (dim.)', etc., all diminutives formed with the mobile-vowel suffix *-o/k-*, have anomalous plurals *zúbki*, *glázki*, etc., which are pre-desinential throughout the plural instead of the expected desinential or mobile stress. As notes in 6 above, *kazák* has a regular variant plural with desinential stress, *kazákí*.
 8. We shall follow Fedjanina in considering the AC stress of the two words *derevnja* 'village' and *dólja* 'share', as anomalous (1976:85).
 9. With the single exception of *stupén'*, which is regular and of the AA type when used with plural *stupéni* 'step', gen. plur. *stupénej*, but is irregular when found in the meaning 'stage', with the plural mobile forms *stupéni*, nom. plur., *stupeněj*, gen. plur., doubly anomalous for being a pre-desinential \sim desinential mobile type in the noun as well as for the fact that plural mobility should have initial stress in the singular.
 10. In cases where the pre-desinential vowel happens to be a mobile vowel, the stress may either remain on that vowel (e.g., *kol'ca*, nom. plur. 'ring', *koléc*, nom. plur.), or even more often the stress gets retracted to the pre-pre-desinential syllable (preceding the mobile) in the interest of paradigmatic regularity, e.g., *pis'ma*, nom. plur. 'letter', *pisem*, gen. plur. For further discussion, cf. Halle (1973:321-2) and Feldstein (1979).
 11. When a mobile vowel is followed by a stressed zero-ending (morphophonemically), the stress is sometimes retracted to the mobile vowel (e.g. *smes'o/n + \emptyset + smesón*), but it may also be retracted to the vowel preceding the mobile (e.g., *bol'e/n + \emptyset + bólen*).

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