THE RUSSIAN VERBAL STRESS SYSTEM

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I. The distinctive units of Russian stress placement.

In two previous papers (Feldstein 1980, 1984) I attempted to introduce a system for the description of Russian stress which was illustrated primarily on the basis of noun and adjective declension and noun word-formation.[1] The description of verbal stress can be accomplished by using the very same methods as applied to the nominal variety. This paper has the goal of demonstrating such a method for the description of Russian verbal stress as reflected in the non-past and past tenses[2] as well as in the forms of the past passive participle. Before discussing the problems strictly related to verbal stress, let us examine the basic premises of our stress system. A basic notion of our system is the assumption that the stress of all Russian inflected words can best be classified if their full inflectional paradigms are divided into two semi-independent halves, which we refer to as subparadigms (Bloomfield and Petrova 1945: 333-4), different for each part of speech. Thus, noun stress is divided into singular and plural, adjectival stress into short-form and long-form, and verbal stress into non-past and past. Double letter designations (e.g. AA, BB, CC, etc.) are used, wherein the two letters refer to the stress of the two subparadigms in the order just indicated. The use of subparadigmatic, rather than entire paradigmatic stress patterns, is deemed preferable and more economical since subparadigmatic patterns are minimal units which can be combined in different ways within the full paradigm. The essence of our stress system lies in the fact that of the six types of stress patterns found within the subparadigms of Russian words,[3] only three can be found within any given subparadigm.[4]

[1] The previous attempt at classifying verbal stress (Feldstein 1980:133-5) is now being revised and expanded.

[2] The term NON-PAST is used to include what is often called present tense and future perfective.

[3] The subparadigms we have in mind are those such as the following: zero-declension singular, zero-declension plural, *a*-declension singular, *a*-declension plural, *o*-declension singular, *o*-declension plural (all the above for nouns); short form adjective, long form adjective; group I verbal non-past, group II verbal non-past, group I verbal past, group II verbal past. See below, tables four and five, for more details.

[4] Except for certain deviant classes which are anomalous for our system, such as *a*-declension plurals with desinential stress (e.g. *čertý*), which primarily are Eastern and Church Slavonic loans (Red'kin 1971:31, Kiparsky 1962:196). See the next footnote for more details.

Therefore, there are only three basic types of subparadigmatic stress, with variations conditioned on the basis of those morphological features which apply to the specific subparadigms. Before listing the six types of possible subparadigmatic stress, let us consider what is meant by stem-stress.

Stem-stress within a subparadigm occurs in two important subtypes with respect to the stress in the other subparadigm of the given word. A basic flaw can be noted in those stress systems (e.g. Reďkin 1971, Fedjanina 1982) which fail to recognize these two subtypes of stem-stress (see Feldstein 1980: 127-30 for discussion). The first type has the identical stem-stress in both subparadigms of the word and can have its stress on any stem-syllable without restriction (e.g. *žávoronok, želúdok, krokodíl*). The second variety of stem-stress is paired to a subparadigm with a DIFFERENT type of stress; importantly, this type of unpaired stem-stress is restricted to two types: either stem-initial stress or stem-final (i.e. predesinential) stress throughout the subparadigm (e.g. zero-noun singular *kólokol, górod, óblasť* with stem-initial or *a*-noun and *o*-noun plural *kolbásy, dolóta* with stem-final stress, always found with non-agreeing stress in the accompanying subparadigm). As a result of the above pattern, we can say that whenever subparadigmatic stem-stress does not agree with that of the other subparadigm, it is necessarily stem-initial or stem-final. Further, since these stem-initial and stem-final types do not co-occur in the subparadigm of a given morphological category (i.e. zero-noun singular, zero-noun plural, *a*-noun singular, etc.), we can precisely predict the occurrence of stem-initial or stem-final stress whenever we have stem-stress in a subparadigm which does not have matching stem-stress in the word's other subparadigm. Thus, for example, unpaired stem-stress in the singular of zero-declension nouns must be initial, while unpaired stem-stress in the plural of *a*-declension and *o*-declension nouns must be predesinential. Recognizing that there are three varieties of subparadigmatic stem-stress (constant paired, initial, and predesinential or stem-final), let us now list the six possible types of subparadigmatic stress with illustrations:

1. Constant stem-stress, as noted above, which can have stress on initial, medial, or final stem syllables, but, by definition, must have the identical stress across both subparadigms of a word. Further examples: *kómnata, prótiven', beséda, bulýžnik, kulebjáka, institút.*

2. Stem-initial stress (with another stress type in the other subparadigm). E.g. *pérepel, téterev* (both with plural subparadigms having desinential stress); *póvesť, védomosť* (both with plural subparadigms having mobile stress of the initial ~ desinential type).

3. Stem-initial stress alternating with desinential stress in the same subparadigm. E.g. *gólovu ~ golová, sko'vorody ~ skovorodám, zánjalo ~ zanjalá,*

mólodo ~ molodá.

4. Predesinential stress (with another stress type in the other subparadigm). E.g. *skorlúpy, strekózy, men'šínstva* (all paired to singular subparadigms with desinential stress); *gorjáčij* (paired to a short-form with desinential stress); *podstrígla* (paired to a non-past tense with desinential stress).

5. Predesinential stress alternating with desinential stress in the same subparadigm. E.g. *peregoródit ~ peregorožú, rasskážet ~ rasskažú, zakolótit ~ zakoločú.*

6. Desinential stress in the entire subparadigm, which may or may not be paired to the same stress type in the other subparadigm. E.g. *kočán, kočaná*, etc. Note that when a stem-final stress appears before a zero-ending in a subparadigm which otherwise has only desinential stress we posit stress on the zero ending (Feldstein 1979: 29-30). While *kočán* has desinential stress in both subparadigms, we often encounter desinential stress only in a single subparadigm, e.g. *čisló, kolbasá* (paired to predesinential stress in the plural); *mogló* (paired to predesinential ~ desinential mobility in the non-past tense).

Having listed the six patterns of subparadigmatic stress, our system takes a step which separates it from the others which utilize the concept of subparadigmatic stress. The general tendency has been to classify the existing stress types and not go much further than that. Our paper's goal, however, is to suggest that the above-mentioned six stress types are merely the surface manifestation of only three basic stress types. This notion is based on the important fact that within virtually every subparadigm, within a given inflectional category, there is only a three-way opposition of stress patterns. In other words, if we hold the morphological category of the subparadigm constant, only three actual stress patterns can be opposed to one another. This then permits us to assert that three of the six stress patterns are in complementary distribution with the other three in any constant morphological environment. It is this morphological environment which can be said to predict the actual selection of the three occurring types out of the six possible types. Once this principle is recognized, we are in a position to establish the true distinctive units of Russian stress patterns. Since our first stress type, type A with constant stem-stress across both subparadigms, occurs in every single subparadigm, this type is not involved in the relations of complementary distribution which affect the other types. Therefore, our goal is now to determine which of the five remaining patterns can co-occur, and which are merely the variants of other types.

In table I the stress patterns' oppositions in subparadigms have been listed.

A. Nouns	*Singular*	*Plural*
1. Zero-declension	constant stem (желу́док) initial (во́лос) desinential (стол(а́))	constant stem (желу́дки) init. ~ des. (во́лос ~ -а́м) desinential (столы́)
2. a-declension	constant stem (коро́ва) init. ~ des. (го́лову ~ -а́) desinential (колбаса́)	constant stem (коро́вы) init. ~ des. (го́ловы ~ -а́м) predesinential (колба́сы)
3. o-declension	constant stem (кре́сло) initial (о́блако) desinential (долото́)	constant stem (кре́сла) predesinential (доло́та) desinential (облака́)
B. Adjectives	*Short Form*	*Long Form*
	constant stem (краси́во) init. ~ des. (мо́лодо ~ -а́) desinential (горячо́)	constant stem (краси́вый) predesinential (горя́чий) desinential (молодо́й)
C. Verbs	*Non-Past*	*Past*
1. Obstruent & Syllabic Suffixed Stems	constant stem (ста́влю) predes. ~ des. (напи́шет ~ -ý) desinential (унесу́)	constant stem (ста́вило) predes. (написа́ло) desinential (унесло́)
2. Resonant & Non-Syllabic a-Suffixed Stems	constant stem (ста́ну) predes. ~ des. (сни́мет ~ -ý) desinential (проживу́)	constant stem (ста́ло) predes. ~ des. (забра́ло ~ -а́) init. ~ des. (про́жило ~ -а́)

Table 1. Three-way stress oppositions within Russian stress paradigms.

As the table reveals, five morphological categories were selected to display the three-way subparadigmatic oppositions, including three for the noun, one for the adjective, and two for the verb. These categories are thus being proposed here as the natural groupings used for the three-way stress opposition of Contemporary Standard Russian. Certain minor exceptions and irregularities had to be excluded from the chart on the assumption that these infrequent instances of a four-way, rather than a three-way stress opposition, can profitably be treated as irregular deviations from a regular,

prevailing pattern of three-way stress opposition.[5] As to the distribution of stress oppositions shown within table one, each of the mobile types (initial ~ desinential and predesinential ~ desinential) is in complementary distribution with a corresponding immobile type, i.e. within a given subparadigm stem-initial stress is in complementary distribution with stem-initial ~ desinential mobility and cannot be opposed to it, just as predesinential stress cannot co-occur with the pattern of predesinential ~ desinential mobility. Since desinential stress can occur as part of the mobile stress pattern, together with either stem-initial or predesinential stress, we cannot treat desinential stress as a basic invariant type. Thus, we can assert that initial and predesinential stress varieties have the value of basic stress types. Henceforth, all manifestations of predesinential stress in subparadigms, either without mobility or in combination with desinential stress, will be referred to as type B stress paradigms and, similarly, manifestations of initial stress will be referred to as type C. As table one further demonstrates, each subparadigm, at a very minimum, contains one instance of constant stem-stress (type A), plus a second manifestation either of predesinential stress (type B) or initial stress (type C). As the third entity in our three-way opposition, we frequently find immobile desinential stress, opposed to either type B or type C, but not to both simultaneously in a given subparadigm. In other words, desinential stress, when it occurs, is in complementary distribution with either initial or predesinential stress, depending on the precise morphological environment of the subparadigm in question. Thus, for example, we can have the opposition of predesinential (type B) vs. initial (type C); predesinential (B) vs. unmarked desinential; or initial (C) vs. unmarked desinential. We then interpret desinential stress as a variable realization of either type B or C, depending upon which type it is opposed to in the given subparadigm. It is important to connect the two aspects of the behavior of desinential stress: first, that it can alternate either with type B or type C in a mobile-stress subparadigm and, second, that it can be opposed to either type B or type C stress in a subparadigm.

[5] A typical example of an anomalous stress pattern which causes there to be a four-way subparadigmatic stress opposition is the case of *a*-declension nouns which use desinential stress rather than predesinential in the plural. Concerning this class of words Voroncova (1979:53) has written that "they have completely (with isolated exceptions *čerta, stopa* 'foot') changed (or are changing) to the new mobility." By the "new mobility" Voroncova refers to constant predesinential stress in the *a*-declension plural, paired to desinential stress in the singular (our stress type BB). Thus we see that our system's anomalous category accords very well with its moribund nature. Our system's goal, further, is not to characterize the stress of every single occurring type, but to indicate the prevailing oppositional system.

These relations of co-occurrence and complementary distribution permit us to establish the basic distinctive elements of stress placement, both in terms of morpheme boundaries and binary features. As seen in table 2, the permissible syllables for the three stress types can be defined as type A, with stress between the initial word-boundary and the stem-desinence boundary; type B, with stress immediately preceding or following the stem-desinence boundary; and type C, with stress immediately following either the initial word-boundary or the stem-desinence boundary.

Type A: #_____+ . . . . .#

Type B: #. . . . . _+ _. . . .#

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

Table 2. Permissible stress positions in the three basic types (# = word-boundary, + = stem-desinence boundary, ___ = permitted stress position, . . . = non-occurrence of stress).

Type A can overlap with both B and C and has only stem-medial stress as its unique property; types B and C, as previously noted, share the desinential position of stress and together contrast to type A in this respect. We can summarize these shared and unique properties in the grid found in table 3, in which we can observe that the minus signs represent the simplest way of expressing the distinctive nature of the three stress types, i.e. A is non-desinential, B is non-initial, while C is non-predesinential.

	A	B	C
initial stress	+	–	+
predesinential stress	+	+	–
desinential stress	–	+	+

Table 3. Binary features of the three basic stress types.

Before proceeding to our consideration of Russian verbal stress, we provide, as reference, the inventory of stress types A, B, and C for the noun and adjective, together with rules for the realization of type B and C stress, which is dependent on the morphological category (table 4).

I. Zero-Declension Nouns[6] (singular/plural)	II. a-Declension Nouns (singular/plural)	III. o-Declension Nouns (singular/plural)	IV. Adjectives (short-form/long-form)
AA želúdok, paralléľ	AA koróva	AA jábloko	AA krasiv-
BB jazýk, puť	BB kolbasá	BB čisló	BB xoroš-
CC lébeď, óblasť	CC golová	CC slóvo	CC molod-
BC gvozď	BC gubá	BC očkó	BC smeš/n-
CB górod	CB vodá	CB ózero	CB vesél-
Singular B: DES	Singular B: DES	Singular B: DES	Short B: DES
Singular C: INIT*	Singular C: INIT ~ DES	Singular C: INIT	Short C: INIT ~ DES
Plural B: DES	Plural B: PREDES	Plural B: PREDES	Long B: PREDES
Plural C: INIT ~ DES	Plural C: INIT ~ DES	Plural C: DES	Long C: DES

*Singular C has INIT ~ DES if second locative exists (e.g. *v snegú*).

Table 4. Inventory of stress patterns of Russian nouns and adjectives plus rules for determining value of types B and C (INIT = initial, PREDES = predesinential, DES= desinential).

[6] The two different declension types with a zero-ending in the nominative singular (e.g. *želudok, kost'*) can be treated together as a single stress type since A, B, and C stress realizations are identical, Thus, all noun declension classes are referred to in terms of their nominative singular desinence.

II. Verbal Stress in non-past and past tense forms.

Noun stress is patterned on the basis of different sets of inflectional endings, at the very least on the basis of the nominative singular ending, which has permitted us to group noun stress types into zero-, *a*-, and *o*-declensions, as shown in table four. The selection of these specific groups can be considered as correct, according to our methodology, since each group yields the identical inventory of stress types, i.e. AA, BB, CC, BC, and CB, with differential rules of interpretation which apply to each declension class. In the case of the Russian verb, however, as many studies have shown (e.g. Stankiewicz 1979: 186-8, Halle 1973: 325), it is the stem-type, rather than the set of inflectional endings (i.e. first or second conjugation) which serves as the basis for the distribution of verbal stress types. Along with stem-type, the presence or absence of a suffix vowel is of great significance. There is a major difference between verbs containing a suffix vowel and those that do not. This can be expressed in the following two principles of verbal stress behavior:

1. verb forms without a suffix vowel (either non-derived or with a truncated suffix vowel) can bear the stress on any of their three morphemes, including prefix, root, and desinence. E.g. *próžilo ~ prožilá; zalézl(a), prošú ~ prósiš'*. Note that mobility can only occur in the presence of desinential stress somewhere in the paradigm of non-past or past forms.

2. verb forms containing a suffix vowel can have the stress only on either of the first two contiguous syllabic morphemes of the word, starting from the root. Thus, if root, suffix, and desinence are all syllabic, only root and suffix can bear the stress (e.g. *postávila, pogovoríla*); however, if the root is non-syllabic both the suffix and desinence can bear the stress (e.g. *zabráli, zabralá*). Since mobility can only occur when desinential stress appears, a mobile stress pattern with a syllabic suffix implies the presence of a non-syllabic root.

Due to rule two, the stress of any form with syllabic root and suffix has only two stress possibilities: constant root stress in all verb forms (type A) and suffixal, or predesinential stress. If the stem suffixal stress were to be constant and unchanging in all verb forms it too could be termed *type A* in our system. However, past or non-past suffixal stress in the Russian verb always involves some sort of stress shift to another syllable, at least in the past passive participle (e.g. *pročitájut, pročítana*), as we shall see in more detail below.

In the verbal non-past tense we shall consider that there are only three basic stress patterns, as follows:

1. stem-stress, paired to the same stress in other verb forms, including past tense and past passive participle. E.g. *léz-, stán-, stávi-, pláka-, délaj-*).

2. predesinential stress, not constant across all forms of the verb. The non-past tense realization depends on whether there is a suffix vowel in the non-past. If a suffix vowel is absent, either due to non-derived status or truncation, then the stress is predesinential ~ desinential, with desinential stress in the first person singular form and predesinential stress in all remaining forms of the non-past (e.g. *mog-, obnim-,*[7] *prosi-, pisa-*). However, if all non-past forms contain both root and suffix vowels, predesinential stress can only be realized by means of a constant suffixal (= predesinential) stress, throughout all non-past forms, as seen in *aj*-suffixed verbs, since this is one of the rare Russian verbal suffixes which is retained in all non-past forms (e.g. *čitáj*).

3. desinential stress (e.g. *n'os-, gnij-, b#ra-*[8]).

In terms of our letter designations, constant stem-stress verbs have a non-past subparadigm of type A. Both predesinential ~ desinential and predesinential types are of type B, while constant desinential stress must then be recognized as a manifestation of type C. While we can reduce the number of non-past patterns to the above three basic types for all Russian verbs,[9] the situation is more complex in the past tense form, where certain stem types lack stress mobility, but others have it. We can then classify Russian past tense types into two groups on this basis. The first of these groups, lacking past tense stress mobility, includes the non-suffixed obstruent stems (e.g. *n'os-, v'od-, p'ok-*) and all stems with syllabic root and suffix vowel (which lack mobility in the past tense, since only root or suffix stress is admitted). This applies to verbs in the suffixes *a-, i-, e-, aj-, ova-, nu-,* and *o-*. Of course, stems with non-syllabic roots followed by the suffix *-a-* (to be referred to as N/S-a verbs, after Townsend 1968: 83) do not belong to this group. Group I verbs have the following past tense stress patterns, corresponding to types A, B, and C:

1. constant stem-stress, paired to stem-stress in the non-past and past passive participle (e.g. *lézla, stávila, plákala, délala*).

[7] In the case of *-nim-* ~ *-nja-* verbs, the stems are conventionally designated here by means of the present stem.

[8] A zero which alternates with a vowel at the inflectional level is here represented as #, while other zeroes are represented as ∅. Stems followed by hyphens, such as *n'os-*, are in morphophonemic transcription, while actual cited verb forms, unless otherwise noted, are transcriptions of Russian orthography.

[9] The verb *xotet'* has an anomalous non-past tense stress pattern, due to the fact that the singular and plural non-past forms use different stems (see Stankiewicz 1979:188).

2. predesinential stress, paired to another stress type in the non-past or other verbal form (e.g. *otgrýzla,*[10] *upála, govoríla, pisála, čitála.*

3. desinential stress (e.g. *nesló, mogló*).

The remaining verbal stem-types, i.e. the non-suffixed sonorant stems (e.g. *stan-, živ-*) and the N/S-a stems (e.g. *b#ra-* and *lga-*) are markedly different from the above listed types in their use of stress mobility within the past tense as the realization of stem types B and C. In fact, along with the ubiquitous constant stem-stress pattern (type A), the only other possible past tense patterns involve mobility in this second group of verbs which we shall refer to as group II. Examples are as follows:

1. constant stem-stress (e.g. *stálo, dúlo, žálo,*[11] *slálo*).

2. predesinential ~ desinential stress (e.g. *sovráli ~ sovralá, prizváli ~ prizvalá, razvíli ~ razvilá, začáli ~ začalá*).

3. initial ~ desinential stress (e.g. *náčali ~ načalá, úmerli ~ umerlá, próžili ~prožilá*).

These three past tense stress patterns of group II verbs neatly correspond to our types A, B, and C. As a result, we can now state that verbal groups I and II each have stress inventories which consist of the five types AA, BB, CC, BC, and CB, which we have also posited for the other inflected categories of Russian. Differences between verbal groups I and II, of course, do not lie within this inventory, but are primarily in the realizations of types B and C in the past tense. The verbal inventories have been given in table 5.

Certain facts represented in table five require further comment. In both groups I and II, the BC class is represented by a single verbal root (*mog-* in group I and *-nim- ~-nja-* in group II), both of which are extremely frequent in usage and appear with a variety of prefixes. Both of these roots are unusual in their use of mobile stress in the non-past tense. The BB class of group II is represented only by the non-literary *s#ra-* (see Halle 1973: 326 for the stress pattern) and the irregular verb *g#na-*. A number of group II verbs lack a stem vowel in the non-past tense, but contain one in the past. In those cases where the past tense stress is of the constant stem variety, but the non-past has desinential stress by virtue of there being no stem

[10] The reader inclined to question why we refer to *otgrýzla* as type B predesinential stress, but to *perelézla* as type A stem is referred back to our discussion of the two basic types of stem stress within a subparadigm. The verb *otgrýzla* has stem stress paired to non-stem stress in the other subparadigm (*otgryzët*). By definition, predesinential stress such as that as *otgrýzla*, then, must be treated as an instance of type B. The analogous situation for the noun occurs in the plural of *kolbasá*, where we have treated *kolbásy*, etc. as type B predesinential stress rather than type A.

[11] Discussion of type A stress in verbs with a zero root-vowel is given below. See Stankiewicz (1979:77, 95-6) for further details.

Group I Verbs:

a. Non-suffixed Obstruent Stems
b. Suffixed with Syllabic Root

AA	léz-, stávi-, pláka-, délaj-.
BB	prosi-, pisa-, verte-, kolo-; čitáj-.
CC	gr'ob-, n'os-, v'oz-, p'ok-.
BC	mog-.
CB	otgryz-, upad-, ukrad-, govori-.

Group II Verbs:

a. Non-suffixed Sonorant Stems
b. Suffixed with Non-Syllabic Root (N/S-a)

AA	stán-, dúj-, dén-, ž#m-.
BB	s#ra-, g#na-.
CC	nač#n-, proživ-, ot#p#r-, um#r-.
BC	obnim-, podnim-, snim-.
CB	zač#n-, sovra-, priz#va-, podožda-.

Realization Rules

Group I:

Non-past B = { predesinential (if suffix vowel present); predesinential ~ desinential otherwise }
Non-past C = desinential
Past B = predesinential
Past C = desinential

Group II:

Non-Past B = predesinential ~ desinential
Non-past C = desinential
Past B = predesinential ~ desinential
Past C = initial ~ desinential

Table 5. Stress inventories of the two major groups of Russian verbs, followed by realization rules for non-past and past tense stress. Letter designations (AA, BB, etc.) refer to non-past and past tense stress subparadigms, respectively.

vowel (e.g. *b#j-, š#j-, ž#m-, ž#n-, m#n-*) I would agree with Stankiewicz (1979: 77) that there is morphophonemic stress on the zero (*b#j-, š#j*, etc.) which automatically gets transferred to the desinential vowel when the root remains as zero. Our system shall refer to such verbs as type AA, which is confirmed even by such forms as the past passive participle, which retains the same stress placement, as we shall see later in more detail.

N/S-a verbs with desinential stress in the non-past and suffixal stress on *-a-* in the past tense (e.g. *sla-: šljú, šlëš', slála*) pose an interesting problem for our system. Their past and non-past stress would lead one to assume morphophonemic stress on the *a*-suffix, which automatically moves rightwards onto non-past desinences when the suffix vowel is truncated. In fact, this is the solution advanced by Stankiewicz (1979: 77). However, our stress system cannot refer to such a verb as constant stress type AA, since the past passive participle stress of such verbs does not remain on the *a*-suffix, but is shifted to the presuffixal vowel, i.e. *póslano*, not **posláno*. A second possible solution, that of equating the stress of *sla-* with that of *govori-* (type CB) seems to violate our system due to the fact that N/S-a verbs have a past tense type B with mobile stress, rather than the constant predesinential (suffixal) stress of both *govori-* and *sla-*. However, let us observe that the only two N/S-a verbal stems (with prefixal compounds) which do not fit into the group II stress pattern are the two N/S-a verbs which have consonant mutation in the first person singlular and third plural: *sla-* and *st#la-*. This fact prompts us to now more narrowly define the verbs of group II so as to include only those more regular N/S-a verbs which lack consonant mutation in the first person and third person plural. Thus, the non-past consonant mutation of *sla-* and *st#la-* places these verbs in group I, as illustrated in table five, where they belong to stress types CB and BB, respectively, like *govori-* and *pisa-*.

III. Inflectional vs. derivational aspects of verbal stress.

Straková has correctly observed that even when suffixed verbs appear to be non-derived with a simple "classifier" suffix, this suffix still "has derivational function quite often" (1978: 150). The dual inflectional-derivational function of the verbal suffix thus creates "an organic bond between the derivational and inflectional systems," in Straková's words. These observations have direct relevance to our stress system, since in both of our verbal groups I and II suffixed verbs regularly lack the B vs. C stress opposition in the past tense, meaning that all suffixed verbs which have the non-past tense opposition of type B (predesinential ~ desinential) vs. type C (desinential) share a neutralized suffixal stress in the past tense (or neutralized

suffixal ~ desinential stress in the case of group II N/S-a verbs). Thus, non-past *zagoródit* vs. *zagovorít*, but past tense neutralized suffixal stress *zagorodíla, zagovoríla*. This neutralization of B and C stress types in the past tense of suffixed verbs can be explained on the basis of the fact that whenever an overt verbal suffix appears, as in the past tense form, the derivational pattern of a two-way stress opposition (with regularly merged B and C types, see Feldstein 1984) comes to the fore. However, when the suffix vowel is truncated, as in the case of suffixes ending in vowels in the non-past tense, the non-derived pattern of a three-way stress opposition emerges. This explains why there is never a full three-way stress opposition when the *-aj-* and *-ej-* suffixes are used; their suffix vowels are never truncated either in the past or non-past. Next, in dealing with the stress of the past passive participle of Russian, we shall see that the retention or truncation of the verbal suffix is the key determining factor in the stress pattern of this form as well.

IV. Past passive participle stress.

In spite of a number of attempts to describe the behavior of past passive participial stress in Russian (Halle 1973: 332-5, Stankiewicz 1979:196-9), the true essence of these stress rules has not as yet been captured. Extant studies of past passive participial (henceforth PPP) stress tend to divide it into three groups on the basis of whether the *-on-*, *-n-*, or *-t-* suffix is used. However, we shall see that the underlying principle determining the PPP stress is not the participial suffix; it depends, rather, on whether the vowel of the original verbal suffix (if any) remains intact or not, an important factor in verbal past tense stress as well. We shall first state the rules which derive the short-form PPP and, subsequently, the rather simple rules for converting the short-form stress into that of the long-form will be indicated.

We posit that the *-on-* suffix is used with non-suffixed obstruent and suffixed *i*-stems only. Halle (1973: 334) and Stankiewicz (1979: 196) both assume that the *-on-* suffix is also used with *e*-suffixed verbs. However, a much more coherent overall pattern emerges when *e*-suffixed verbs are treated as taking the *-n*-suffix in the PPP, as posited by Townsend (1968: 85).[12] The suffix *-t-* is used with non-suffixed sonorant stems and with *o-* and *nu-* suffixed verbs, while the remaining *-n*-suffix is used with all of the

[12] As a matter of fact, it cannot be conclusively determined whether the *e* of PPP *rassmotren(a)*, etc. is an underlying *e* or *o*, since no PPP of the *e*-stem class stresses this vowel. If it is underlying *o*, the PPP suffix should be considered to be *-on-*; if underlying *e*, the ending should be *-n-*, since the verbal suffix *e* is itself already underlying *e*. I would submit that the accentual evidence presented in this paper is a strong argument for viewing this ending as *-n-*.

other suffixed types: *a-, ova-, aj-, e-, ej-*. Parenthetically, we can see that the suffix is *-t-* when the stem-final is sonorant or rounded, and *-(V)n-* when non-sonorant or unrounded.

The PPP stress, as noted, is like that of the past tense and all verb forms which may potentially contain a suffix vowel, since it stands on the borderline of the inflectional and derivational systems. The derivational system, at a minimum, suppresses the B vs. C stress opposition, by merging the derivatives of both B and C bases (Reďkin 1971: 48, Feldstein 1984). In the case of the Russian PPP, all stem types potentially keep type A, constant stem-stress, distinct from the other types; however, Russian verbs differ radically on the basis of whether they oppose types B and C on the pattern of inflection, or merge them on the derivational model.

Curiously, both Halle (1973:332) and Stankiewicz (1979:197) have failed to recognize that in the case of the minimally opposed *-n*-suffixed PPP (i.e. types B and C merge since the verbal suffix is not truncated), type A nevertheless emerges as distinct from the other types, as long as the verbal stem is long enough for this difference to be manifested. Halle refers to "fixed pre-suffixal stress in both short and long forms," while Stankiewicz states that the *-n*-suffixed PPP has "stress on the penultimate syllable of the stem . . . regardless of the stress of the underlying form." However, let us recall that the A type stress of a verb such as *potrébova-* retains its stress in the PPP as *potrébovan(a)*, while the non-A stress types with the same *ova-* suffix generalize the stem-penult stress mentioned by Halle and Stankiewicz, e.g. *narisóvan(a)*. All stems in stressed *-írova-* which are capable of forming the PPP, have constant type A stress in this form, with *-írovan(a)*, e.g. *bronírovan(a)*, which is opposed to the B/C type, which stresses the stem-penult *(-óvan(a))*. These counterexamples to constant fixed PPP stress have all been drawn from the *ova*-suffixed class, since it is only in this type that an opposition of *-n*-suffixed PPP forms can be manifested. Type A stress in *a-* and *e*-suffixed verbs only occurs on the pre-suffixal (or root-final) syllable, which causes all three A, B, and C stress types to merge when the B and C stress is fixed on the stem-penult syllable in the PPP form. However, *ova*-suffixed verbs give us a more sensitive instrument for viewing the PPP stress opposition since the type A stress of such verbs is never identical to stem-penult stress, due to the presence of two vowels in the suffix; thus, even with stem-penult *-óvan(a)*, which could be described as retraction by one syllable from the suffix-final vowel *a*, the type A stress, on a syllable preceding the entire *-ova*-suffix, remains distinct. Therefore, we do not recognize a rule whereby all PPP stress is neutralized to stem-penult when the *-n*-suffix is used.

Since we assume that the A stressed type simply retains its constant stress in the PPP of all stem classes, the major question of PPP stress is then whether B and C types stay distinct or merge. Both situations occur in Russian, depending on the verbal stem type in question; i.e. the PPP suffix is not the determining factor, as we shall see.[13] The two types are:

1. Non-suffixed stems (both obstruent and sonorant) and *i*-suffixed stems preserve the B vs. C opposition. However, we must note that many verbs do not have a constant type B or type C representation across both tenses, which gave rise to our BC and CB classes of stress; e.g. the verbs *n'os-* and *gryz-* are both of type C in the non-past, but are opposed as types C and B, respectively, in the past. Non-suffixed obstruent and sonorant stems follow the oppositional pattern of the past tense subparadigm in their PPP stress. The *i*-suffixed stems, on the other hand, neutralize the B vs. C stress opposition in the past tense and, consequently, base their B vs. C opposition of the PPP on the stress of the non-past tense. Let us illustrate the PPP stress oppositions of these verbal types. In the non-suffixed obstruent stems, as stated, the past tense stress opposition is carried over to the PPP. The predesinential stress type (B) stresses the same syllable of the PPP, which comes directly before the *-on*-suffix: *zagrýz'-on(a), ukráď-on(a)*, etc. The desinential stress type, as found in the past tense (type C) stresses the final gender/number desinence *prin'os'-on-ó, uv'oz'-on-Ø*, etc. The problem of the dual inflectional-derivational nature of the PPP suffix can be seen by the fact that the predesinential type (*zagrýzen(a)*) treats the *-on-* suffix as desinential, while the desinential type (*prinesenó*) treats only the final, post-PPP desinence as the real desinential syllable. This behavior has been captured in Stankiewicz's statement that "the suffix *-on-* is inherently unstressed" (1979: 196).

Sonorant stems also have their PPP stress directly based on that of the past tense subparadigm. Type B stress has predesinential ~ desinential mobility, while type C has initial ~ desinential mobility in both past tense and PPP forms, where the feminine *-a* desinence is stressed, in contrast to the other forms. The PPP opposition can be exemplified as follows: type A *nadúto, nadúta*; type B *začáto, začatá*; type C *próžito, prožitá*.

The *i*-suffixed verbs have PPP stress which is based on the non-past subparadigm. Type B has predesinential ~ desinential mobility and type C has desinential stress in the non-past, but in the *i*-stem PPP, all forms of type B verbs (e.g. *zagorodi-*) use the predesinential variety of stress, where stress directly precedes the *-on*-suffix (e.g. *zagoróženo*), as opposed to the type C

[13] Of course, when the prefix *vy-* is found with perfectives (including the PPP), fixed stress on the prefix is generalized, which would fall into our type A stress category.

stress which is desinential (e.g. *prigovorenó*).[14] The same rules for placing predesinential and desinential stress in forms with the *-on*-suffix apply here as mentioned above in the case of obstruent stems. Type A stress can be clearly opposed to B and C types, since the first syllable of a polysyllabic root can be stressed, e.g. *raskúporeno*.

2. In the other verbal types, as noted above, type A stress can potentially maintain its opposition to B and C types in the PPP; however, types B and C have a completely merged stress as a general rule. Both B and C types uniformly stress the syllable preceding the verbal suffix's only or final vowel in the PPP. This second group of PPP stress types includes all suffixed stems except for *i*-stems, which belong to the type examined above. In all such cases the consonantal *-n-* or *-t*-suffix is used, which leaves the suffix vowel intact, precluding the B vs. C distinction, on the model of derivational stress. Since the *i*-stems use the *-on*-suffix in the PPP, the verbal suffix *-i-* is truncated (e.g. *zagorodí-on-*), removing the verb from derivational stress restrictions by this single stroke. In the case of all the other verbal suffix vowels, which stay intact in the PPP, we see the same oppositional situation as in the past tense subparadigm, in which the suffix is also intact, and the B vs. C stress opposition is neutralized. For example, the *a*-verbs *napisa-* and *osmeja-* have a B vs. C stress opposition in the non-past tense, where the suffix *-a-* is truncated, but type B predesinential stress is found for both in the past tense, where the suffix remains intact. Again, where the suffix remains intact in the PPP, there is a merged stem-penult stress: *napísan(a), osméjan(a)*; this can be constrasted to the B vs. C opposition of the non-past, e.g. *napíšet* vs. *osmeët*. The *-nu*-suffixed verbs also have the B vs. C stress opposition in the non-past (e.g. *zatjánet* vs. *stolknët*), but merged stress in the PPP: *zatjánut(a), stólknut(a)*. The problem of whether *e*-verbs use the *-n-* or *-on-* PPP suffix becomes clearer now. Since the PPP stress of *e*-verbs patterns exactly like that of all PPP forms containing the *-n*-suffix, rather than the *-on*-suffix, we assume that it is the *-n*-suffix which is actually used. For example, the non-past B vs. C stress opposition of *peresmotre-* vs. *pereside-* (*peresmótrit* vs. *peresidít*) is neutralized in the PPP, which has stem-penult, as follows: *peresmótren(a), peresížen(a)*. This is perfectly regular behavior for *-n*-suffixed PPP forms which

[14] Certain *i*-verbs with non-past B stress form the PPP as if they had type C stress (e.g. *oceni-, otdeli-, otkloni-*). This pattern, due to an earlier non-past C stress and a PPP stress that never caught up with the change in the non-past tense stress, must be considered an irregularity for the purposes of our system. Interestingly, Avanesov and Ožegov (1960) list new stem-penult stressed PPP forms for *oceni-* and *otdeli-*, but caution against using them in favor of the irregular type.

have retained their suffixal vowel intact. Thus, the basis for PPP stress distribution in Russian is as follows: when no overt suffix vowel (other than that of the participial suffix itself) is found in the PPP, an opposition of B and C stress types can occur (as in non-suffixed verbs and *i*-verbs); but when the original verbal suffix survives intact into the PPP form, the B vs. C opposition is neutralized and realized as a stem-penult stress. We can further interpret this to mean that when the PPP suffix is the only surface suffix, as in the case of *-on-*, the situation can fit the inflectional model of stress. On the other hand, when the verbal suffix appears in the PPP together with the PPP suffix (*-n-* or *-t-*), the presence of two suffixes leads to a stress opposition on the derivational model. Table 6 (overleaf) presents examples of the various types of PPP stress.

The long form of the PPP is derivable from the short form. It is a constantly stressed adjectival form bearing the identical stress found in the masculine singular form of the short PPP. Significantly, it is not the morphophonemic representation of the masculine short-form stress which appears in the long form, but the actual surface stress of the short form. Thus, the short forms *prinesën, prinesenó*, may be considered to have a stressed *-Ǿ* desinence in the masculine singular form (*pr'in'os'on-Ǿ*), but the stress on the *-on-*suffix is that found in the long form: *prinesënnyj*. Occasional variant forms with stressed desinences are sometimes cited in sonorant stem long forms, but we follow Halle (1973: 331) in considering them absent from "contemporary literary Russian."

In conclusion, we have demonstrated how a new stress system can be applied to the Russian verb. By dividing Russian verbs into those with and without past tense mobility, we have seen that the very same inventory of stress types found in the noun and adjective are also applicable to the verb. Of course, the external realization of stress types B and C is modified in the process of application to verbs, just as is the case in the nominal and adjectival classes. Importantly, we have observed that any verb form containing an overt verbal suffix vowel neutralizes the B vs. C stress opposition on the pattern of derivatives, while the absence of such a suffix or its truncation permits the B vs. C opposition to occur.

Having seen the stress system applied to the verbal non-past and past tenses, we have turned to the stress of the PPP. Certain stem types permit the full three-way stress opposition to occur in this participial form, while others do not. We have reduced this difference to the same simple rule as found in the past tense, that PPP stress distinctions of B and C types occur only when there is no verbal suffix vowel other than that of the PPP itself. Therefore, we see verbal stress patterns represent a complex pattern of

I. PPP based on past tense stress.

	Stress Type A	*Stress Type B*	*Stress Type C*
OB Verbs	perelézen(a)	ukráden(a)	prinesenó
SON Verbs	odét(a)	začát(o) ~ začatá	prožit(o) ~ prožitá

II. PPP based on non-past tense stress.

	Stress Type A	*Stress Type B*	*Stress Type C*
i-verbs	raskúporen(a)	zagrožen(a)	prigovorenó

III. PPP merges stress of types B and C as stem-penult.

	Stress Type A	*Stress Type B*	*Stress Type C*
ova-verbs	potrébovan(a)	organizóvan(a)	(skóvan(a)[15])
a-verbs	oplákan(a)	napísan(a)	osméjan(a)
e-verbs	uvíden(a)	peresmótren(a)	peresížen(a)
nu-verbs	dostígnut(a)	zatjánut(a)	stólknut(a)
o-verbs		zakólot(a)	
N/S-a verbs		zástlan(a)	perébran(a)
aj-verbs	sdélan(a)	pročítan(a)	

Table 6. Stress oppositions in the PPP.
Blank spaces indicate that the verb type, as defined by this paper, lacks the given stress variety.

[15] Although this stem ends in *-ova*, it is not an *ova*-suffixed verb, since the *ov* belongs to the root; no *ova*-suffixed verb occurs with a type C non-past.

interwoven primary and derived stress patterns, ultimately reducible to the surface presence or absence of a suffix vowel.

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