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On Binary Oppositions and Distributions in the Russian Stress System

I. Introduction.

Since my 1980 paper on the Russian stress system (Feldstein, 1980), I have attempted to demonstrate that Russian stress classification has traditionally not been described in the most economical way and that the number of basic types can be reduced to three within any given subparadigm. The subparadigms of the noun are those of number, singular and plural; verbal subparadigms are those of the non-past (present) tense and past tense; and those of the adjective are the attributive (long-form) and predicative (short-form). The reasons for basing the system on subparadigms, rather than full paradigms, is due to the fact that various combinations of subparadigmatic types can occur within a given paradigm. For example, types B and C can occur as constants across both subparadigms (e.g. BB, CC), or as mixed types (e.g. BC, CB).

Therefore, the subparadigmatic stress type, rather than the full paradigmatic type is taken to be the minimal unit. This is most obvious in the verb and adjective, in which the two subparadigms are inflected for different grammatical meanings. The non-past verbal subparadigm is inflected for person and not gender, while the past subparadigm has the opposite pattern, being inflected for gender, but not person. Likewise, the attributive adjective is inflected for case, while the predicative adjective is not.

Compared to my earlier 1980 system, there are several major differences that can be summarized in the following points:

1. The earlier system described each stress type in terms of the traditional stem/gender types, such as zero-nouns (mainly masculine), *o*-nouns (mainly neuter), and *a*-nouns (mainly feminine). In the current system, I have totally dispensed with the traditional stem-gender types and all stress rules are based only on the phonological shape of desinences.

2. The earlier verb classification of 1980 used the traditional Jakobsonian one-stem classification, but later work has shown that the unified Jakobsonian stem behaves very differently in forms which have a deleted suffix, as compared to those forms in which the

verbalizing suffix is intact. Therefore, I believe that a new binary split must be recognized, separating those forms in which no surface suffix is present (e.g. absence of suffix in: *говору́, говори́шь, говорят*; *пишу́, пи́ишь, пи́шут* vs. presence of suffix in: *говори́ла, говори́ли; писа́ла, писа́ли*). The important rule is that the presence of the suffix in the surface form makes the type B vs. type C opposition impossible, and both types merge as type B. However, B and C are clearly opposed in forms which lack the verbalizing suffix, either due to not having a suffix in any form, or to deleting it in some forms, such as the past or present tense.

3. The parameter of mobility vs. immobility in both noun and verb are now based on specific phonological properties of morphemes. In the case of the noun, if a type C noun has a high-vowel locative or direct case desinence, its subparadigm will be mobile (*бе́рег/берегу́, голова́/голове́, го́ловы/голова́м*). In the case of the past tense of the verb, a type B or C non-suffixed stem in a sonorant will be mobile (e.g. *пи́ли/пила́, сня́ли/сняла́, жи́ли/жила́*), as will a neutralized B/C suffixed stem lacking a root vowel (e.g. *собра́ли/собрала́*).

These points will be illustrated in greater detail within the following sections of the paper.

Virtually all extant Russian stress classifications (e.g. Zaliznjak, 1967; Fedjanina, 1982; Red'kin, 1971) catalog all of the types that occur within a given part-of-speech (e.g. noun, verb, adjective), regardless of the morphophonemic patterns that co-occur with the stress patterns. The major difference between my proposed system and the others lies in the fact that my system makes full use of morphophonemic information (e.g. the phonological shape of desinences or the morpheme structure of stems) as a predictive device for determining the stress of the final output. This has enabled my system to reduce the number of basic types to a minimum and has revealed several structural principles, such as a hierarchy of binary oppositions within the various subparadigmatic types.

Thus, my proposed system consists of two main stages:

1. Establish the minimal types of stress oppositions within any given subparadigm. This follows from the observation that if morphological data is held constant, there is almost always a maximum of three possible stress types in a given subparadigm, one of which (type A) has constant stem stress in the full paradigm and two of which do not (types B and C).

2. State the morphophonemic rules which predict the precise value of the basic types (B and C) in any given subparadigm.

This paper will demonstrate the basic stress types, especially in relation to their binary oppositions and distributions in the Russian noun, verb, and adjective.

II. Basic stress types.

Let us start by reviewing the minimal subparadigmatic stress types and their invariants. None of the invariants is a precise position of stress, but will need further lexical or morphophonemic data to precisely determine the stress position, as will become apparent. This is an essential linguistic tradeoff: one can either enumerate every instance of a category without stating any rules or list a very limited number of basic types, with rules (e.g. morphophonemic environments) for deriving the surface forms from the basic types. The latter approach is being used here in the interest of linguistic economy.

Due to the use of dual subparadigms, stress types are expressed as a two-letter sequence, where the first letter refers to the stress type in the less marked subparadigm (i.e. singular for nouns, non-past (present) for verbs, attributive for adjectives), and the second letter refers to the other subparadigm (i.e. plural, past tense, predicative). There are three basic stress types, which apply to all three major inflected types: nouns, verbs, and adjectives. The first, called type A, is constant stem stress on the same syllable throughout both subparadigms; thus, regular type A can only occur as AA. The second basic type, referred to as B, can occur either in the stem-final (predesinential) syllable of the stem or in the first desinential syllable; i.e. it must occur adjacent to the stem-desinence boundary. The third basic type, known as type C, can either be in the initial word syllable or the initial desinential syllable, i.e. it is initial with respect to the word as a whole or the desinence. Types B and C both occur either in pure form across both subparadigms (BB and CC) or as mixed types (BC and CB).

The relationship of these three basic stress types suggests a binary opposition. In the first place, constant lexical stress (type A) is opposed to the other two types, which are morphophonemically

conditioned stress, B and C. While type A is conditioned by lexical meaning, types B and C are conditioned by grammatical and phonological information, i.e. morphophonemics. In turn, the type B vs. C opposition is itself binary at the next hierarchical level, and can refer to different word positions—either the more central boundary of stem and desinence or the initial position of the stem and desinence.

III. Polysyllabic and monosyllabic stems.

The type B vs. C stress opposition can involve the opposition of a type B **stem-final** stress, such as the nom. pl. *колба́сы*, opposed to a type C **initial** stress, such as the nom. pl. *го́ловы*. It should be noted that neither *колба́сы* nor *го́ловы* can belong to type A, since the stress is not constant across the singular and plural and no single lexical stress mark can be placed to indicate stress in the full paradigm. Thus, it is clear that these forms represent instances of type B and C stress in the plural. However the question arises of how this principle might apply to both polysyllabic and monosyllabic stems. The stems *колбас-* and *голов-* were chosen as illustrations because of their polysyllabic stems. How then would stress types B and C be differentiated in the case of monosyllabic stems? Lagerberg's critique of my stress system (1999:8-11) claimed that my system would only work for polysyllabic stems, since monosyllabic stems do not differentiate stem-initial and stem-final position. In particular, Lagerberg cited the nominative plurals *слы́шу* and *ры́бу*, both with similarly stressed monosyllabic stems and questioned my classification of the former as a type B plural and the latter as a type C plural. The answer is that one does not look at single forms in isolation, such as the nominative plurals *слы́шу* and *ры́бу*. The pattern throughout the subparadigm must be considered and, if that pattern matches an extant pattern with a polysyllabic stem, it can be identified with it, rather than establishing a new and anomalous type on the basis of an ambiguous form (see Bloomfield, 1933: 218-9 and Jakobson 1965/1971: 194). The absence of an opposition between stem-initial and stem-final in monosyllabic stems is simply a type of neutralization or non-distinctiveness, similar to the loss of distinctiveness of obstruent voicing in word-final position. Just as the final consonant of the word *код*, phonetically [kot], can be interpreted phonemically as /d/, on the basis of the other paradigmatic forms (*кода*, etc.), polysyllabic roots can provide the guidelines for determining structural initial or predesinential stem position, even when the stem is monosyllabic. In our aforementioned examples, *слы́шу* can only be interpreted as predesinential, on the model of plural

колбасы, since there is no model for initial stress throughout the plural, paired to desinential stress, as found in nom. sg. *служа́* and *колбаса́*. Similarly, *ры́бу* can only be interpreted as having initial stress in the nominative-accusative plural, since this stress only occurs in this form and shifts to desinential stress in the oblique cases (*рыба́ми*, etc.), following the pattern of polysyllabic *го́ловы*, *голова́ми*. Again, it would make no sense to consider that *ры́бу* has stem-final stress, since nouns do not otherwise have predesinential stem-stress in the plural direct cases, in alternation with desinential stress in the oblique forms.

IV. The major binary opposition of type A vs. B and C.

The primary binary split of the type A stress pattern vs. types B and C, followed by the secondary binary split of B vs. C, can be depicted as follows:

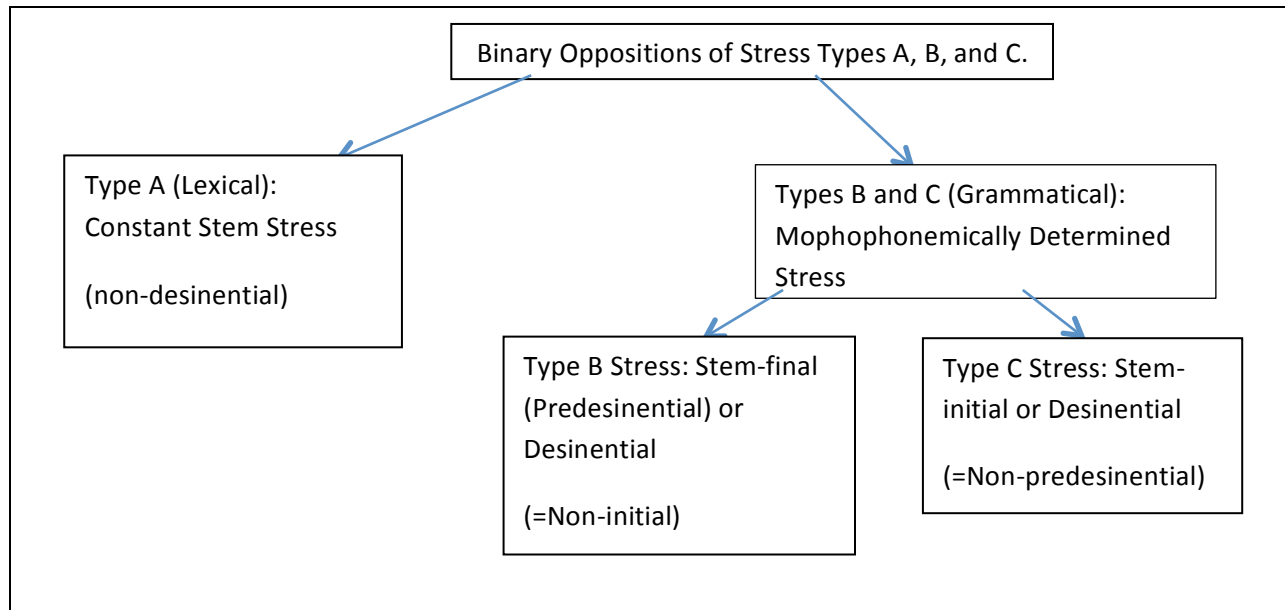


Table 1. Basic binary opposition of stress types A, B, and C.

In more graphic form, this can be shown as follows:

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).

Note that type A stress is simply defined by a stress mark on the syllable that bears the stress throughout the paradigm. No grammatical conditioning is needed for the interpretation of type A. On the other hand, both B and C types have subtypes, which use certain aspects of the morphophonemic environment to predict the stress of the subparadigm in question. This morphophonemic patterning can also be depicted as a series of binary oppositions, which we will review for the Russian noun, verb, and adjective. Generally speaking, the noun uses the genitive, nominative-accusative, and locative desinences for the prediction of nominal type B and C stress, while the verb uses two types of stem-structure, rather than desinences, to select the proper subset of types B and C. These are the presence or absence of a verbalizing suffix in the surface form, together with the syllabicity of the root, and, in the case of no verbalizing suffix, the stem-final sonority of the root. The next sections will demonstrate the specific binary oppositions found in the Russian stress system.

V. Type B and C binary oppositions of the Russian noun.

Type B stress is split into two binary types, based on whether the genitive case ending of the given subparadigm is a non-zero or a zero ending. This is not a binary opposition, but a binary split in the complementarily distributed B subtypes. In the case of a non-zero ending (e.g. *-a*, *-i*, etc.), the stress is desinential throughout the subparadigm; when the genitive is a zero, the stress is stem-final. The regular split of type B nominal realizations is shown in table 3.

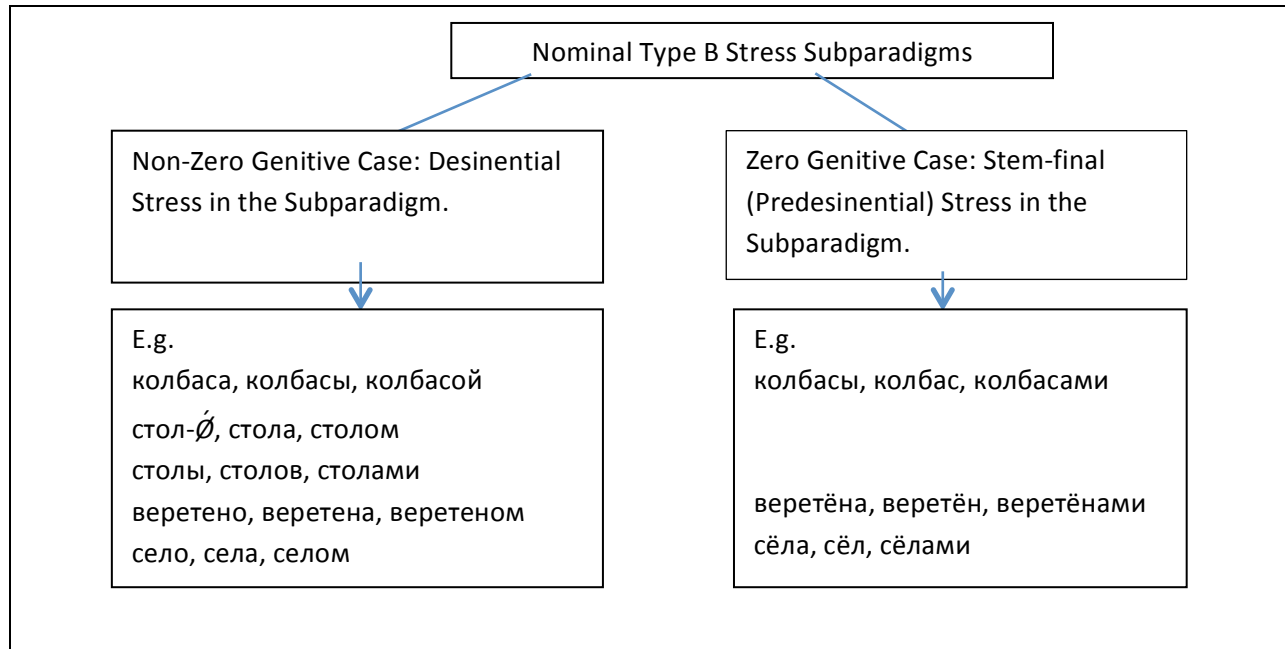


Table 3. Binary split of type B realizations. Note that the zero form in the desinentially stressed subparadigm is assumed to have a morphophonemic stress on the zero ending. Nouns marked “B” will fit either of the two sets of examples in any given subparadigm.

In the case of nominal type C stress, the split of complementary types involves two binary divisions. The first is that of mobile and immobile stress, based on the presence or absence of a high-vowel desinence in either a direct case or the locative of a type C subparadigm. Mobile subparadigms are always characterized by a single deviating form that is opposed to all of the others, rather than two or more deviating forms. In nouns of type C, the form with a high-vowel direct case or locative case ending is the single deviating form that is opposed to the others. The absence of such a high-vowel desinence form in direct or locative cases predicts an immobile subparadigm, but it, in turn, has a binary split, in which a low-vowel (-a) nominative ending predicts desinential stress in the entire subparadigm, while a non-low vowel nominative form predicts initial stress throughout the subparadigm. This is depicted in table 4.

Type C has two binary divisions in its distribution, since the factor of mobility is added to that of immobile stress placement. As shown in table 3, type B nouns are never mobile within the subparadigm, i.e. they do not have case mobility, but are divided in terms of immobile desinential stress and immobile predesinential. Type C has a primary binary distribution of mobile and immobile, based on the presence or absence of a single subparadigmatic form with a direct case or locative ending in a high vowel. If no such vowel is present, type C is then realized

as an immobile type (initial or desinential), based on whether the subparadigmatic nominative case has a low or non-low vowel. This constitutes the second level of type C binary distribution. Note that both criteria depend on segmental vowel sonority of opposite types. Thus, the mobility distribution is based on the high/non-high desinential property, while the immobile initial/desinential determinant is a low/non-low desinence.

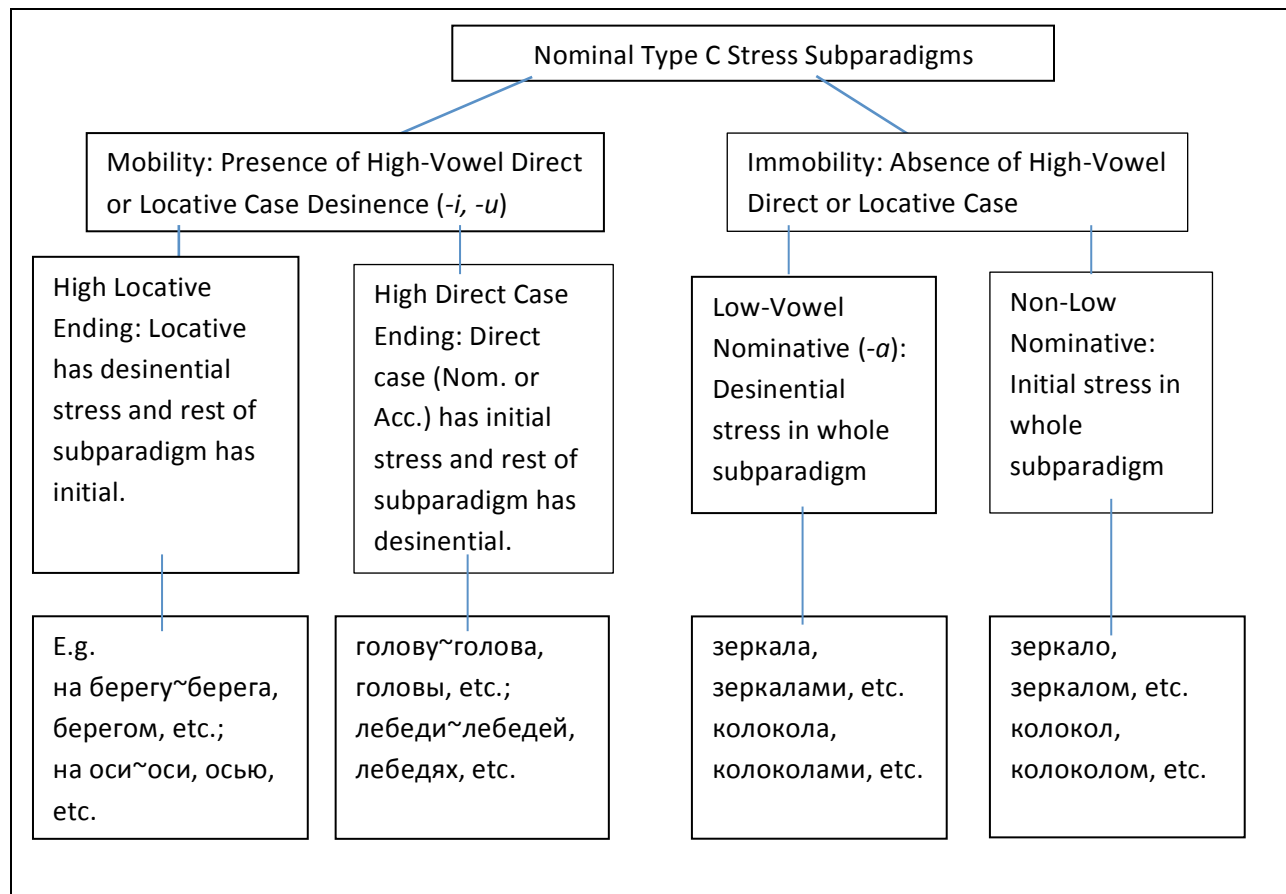


Table 4. Double binary split of type C stress types. Regular nouns marked “C” will fit into one of the groups of examples in any given subparadigm, based on the morphophonemic criteria shown.

Note that these relationships are independent of number and gender. If a noun is marked as “C” lacks a high vowel direct or locative case, but has a low vowel nominative, it will have desinential stress throughout the subparadigm, regardless of whether it is masculine or neuter (e.g. *колокола́*, *зеркала́*.) Similarly, if a noun marked “C” has a high vowel direct case, the direct case has initial stress and other subparadigmatic forms have desinential stress, regardless of whether the noun is in the singular or plural (e.g. singular *го́лову* and plural *го́ловы*).

VI. Russian verb stress.

The accentual subparadigms of the Russian noun are more similar to each other than are the non-past and past subparadigms of the verb. This is due to the fact that similar categories of case apply to the noun in both singular and plural, while the verbal non-past is inflected differently than the past. The non-past (present) is inflected for person and number, but the past tense has the categories of gender and number, lacking person. In spite of that difference, there is one common feature of verbal stress, not found in the noun. When verbs contain a vocalic verbalizing suffix (e.g. *-a*, *-i*, *-e*, *-aj*, *-ej*, etc.), there is no stress opposition between types B and C; it is neutralized and generally merges in the predesinential stress of type B. This does not refer to forms containing a vocalic suffix at a deeper level, which has been deleted, in accordance with Jakobson's rules for vowel deletion (Jakobson, 1948/1971). Rather, it refers to any form that contains a vocalic suffix in its actual surface form, which excludes the type B vs. C stress opposition. On the other hand, if forms are considered "*i*-suffixed" in the Jakobsonian system but have deleted suffixes (such as *i*-suffixed verbs in the present tense, e.g. *сужу́* 1sg, derived from *sudi-*), their surface forms lack a vocalic suffix and they can thus be opposed as type B vs. type C, as will be shown below. For these reasons, the presence or absence of an overt suffix vowel will be considered as the first binary accentual split among verb types. In fact, the main reason that the vocalic suffix is more critical for verbal stress than nominal is that nominal paradigms usually have the same stem, with or without a derivational suffix, in both subparadigms, while verbal paradigms frequently have a surface derivational suffix in one subparadigm, but no such suffix in the other subparadigm (where the suffix has been deleted, according to the Jakobsonian one-stem system). Thus, proceeding from the general rule (Kurylowicz, 1946/1962: 438, 440-1) on the limitations of stress opposition for derived words, a derived noun or adjective may just be classified as type B, even though its derived status might exclude type C, but a verb with derived status in one subparadigm, and non-derived in the other, leads to a more complex situation.

In the non-past verb tense, the underlying suffixes that end in a vowel experience vowel deletion before the vocalic desinences, according to the Jakobsonian system. This surface absence of the vocalic suffix permits the type B vs. C stress opposition to occur. The vocalic suffixes that remain in the non-past are those that do not terminate in a vowel, but are of the form vowel + *j*, causing the entire suffix to stay intact before the vocalic non-past desinences. These are the suffixes *-aj*, *-ej*, *-uj*; thus, the surface presence of the syllabic suffix excludes the type B vs. C stress opposition. Both B and C types merge and are realized as type B stem-final stress;

desinential stress does not occur in this case. When non-past desinential stress does occur after the syllables *-aj*, *-ej*, *-uj*, these sequences are really not verbalizing suffixes, but part of the root, e.g. *узнаю́* (*u-znaj-u*), *даю́* (*daj-u*), *кую́* (*kuj-u*). Thus, the first binary distributional split for non-past verbs is based on the presence or absence of a vocalic verbalizing suffix, representing B and C neutralization. The other binary choice is B vs. C opposition (in the absence of a syllabic suffix), which is realized by predesinential ~ desinential mobility in type B, opposed to the constant desinential stress of type C. The type B mobility follows the nominal pattern of a single deviating form in the subparadigm, which, in this instance, is the first person singular, the only desinence consisting of a single vowel on the final word-boundary. All other subparadigmatic forms have predesinential stress. Notably, nominal mobility type follows the type C pattern (initial ~ desinential), while the verb's non-past mobility is of the type B pattern (predesinential ~ desinential). As will be shown below, the verbal past tense has the most complex mobility type, which permits mobility of both type B and C (e.g. *за́нил, за́нили* vs. *зани́л, зани́ли*). Table 5 shows the pattern of stress in the non-past. Type A, with a single lexical stress mark throughout the full paradigm, is not shown in the table, and can be exemplified by type A constant stress on various stem syllables, e.g. *де́лать, рабо́тать, оборо́чивать*, etc.

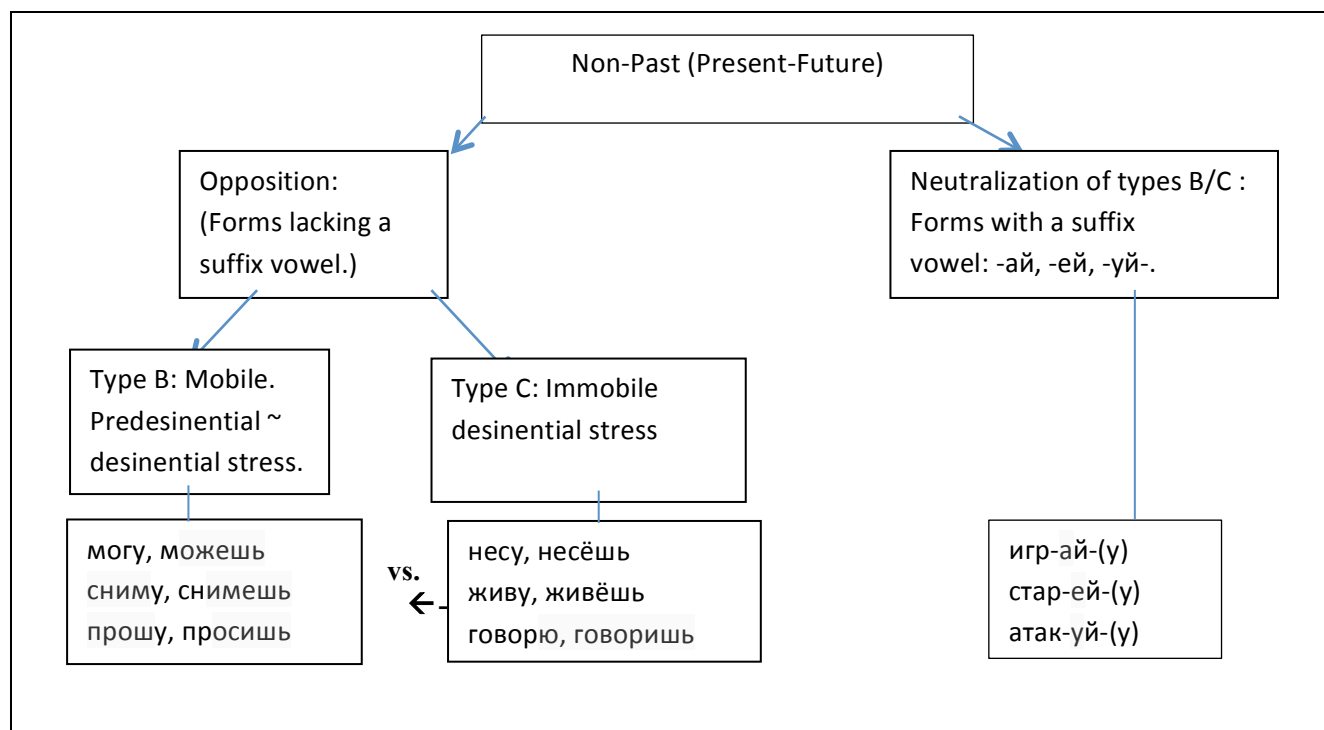


Table 5. Binary divisions of B and C stress types in the non-past tense. First: opposition and neutralization. Second: B mobility vs. C desinential stress.

One might ask why an example such as *успа́ю* is not considered to be type A, constant stem stress, since the past and non-past forms all have constant stem stress in the paradigm of this verb. The answer is that the past passive participle has a stress shift to the left in this case, which is characteristic of type B and does not otherwise occur in verbs of type A. For example, prefixed participial forms based on the stem *успай-* are *сы́гранный*, *разы́гранный*, etc. An interesting anomaly occurs in the paradigm of prefixed forms with the root *znaj-*. Since the syllable *-aj-* is part of the root, rather than a verbalizing suffix, its presence does not condition the neutralization of stress as shown in table 5. Rather, we can have a stress opposition of the type *узна́ю* vs. *узнаю́* (*uznaĭ-u* vs. *uznaj-u*). This would imply that the perfective root-stressed form is of type A and that the end-stressed form is of type C, since type B would imply a mobile non-past stress, which occurs in neither of these forms. Yet, in the formation of the past passive participle, the perfective stems of the type *узнай-*, *признай-*, etc., retract the stress on the pattern of type B: *у́знанный*, *при́знанный*, etc. This pattern implies that there has been some morphological contamination in the accentual paradigm; the *-aj-* syllable functions as part of the root, and not as a suffix, in the non-past and the non-past stress assignment, but apparently undergoes morphological reinterpretation as the verbalizing suffix *-aj-* in the formation of the past passive participle.

We next turn to the binary relationships found in the past tense of the Russian verb. As in the non-past, we also have a major split between type B vs. C opposition, conditioned by the absence of a verbalizing suffix vowel, and B/C neutralization in the shape of type B, when a verbalizing suffix vowel is present. Thus, there are two sets of verbs: one set consists of type B vs. C oppositions and the other consists of verbs lacking this opposition, due to the suffix vowel in the surface form. There is a further split in each of these two major groups into an immobile type and a mobile type. Mobility is based on characteristics of the stem, involving stem-final consonant weight, i.e. obstruent vs. sonorant among the stems which lack the suffix vowel and observe the type B vs. C opposition; for those stems that contain the suffix vowel and lack the B vs. C opposition, mobility depends on the number of post-prefixal syllabic morphemes in the stem, where a non-syllabic root has neutralized type B mobility (predesinential ~ desinential), while a syllabic root has neutralized type B immobility (predesinential), as shown in table 6, which follows.

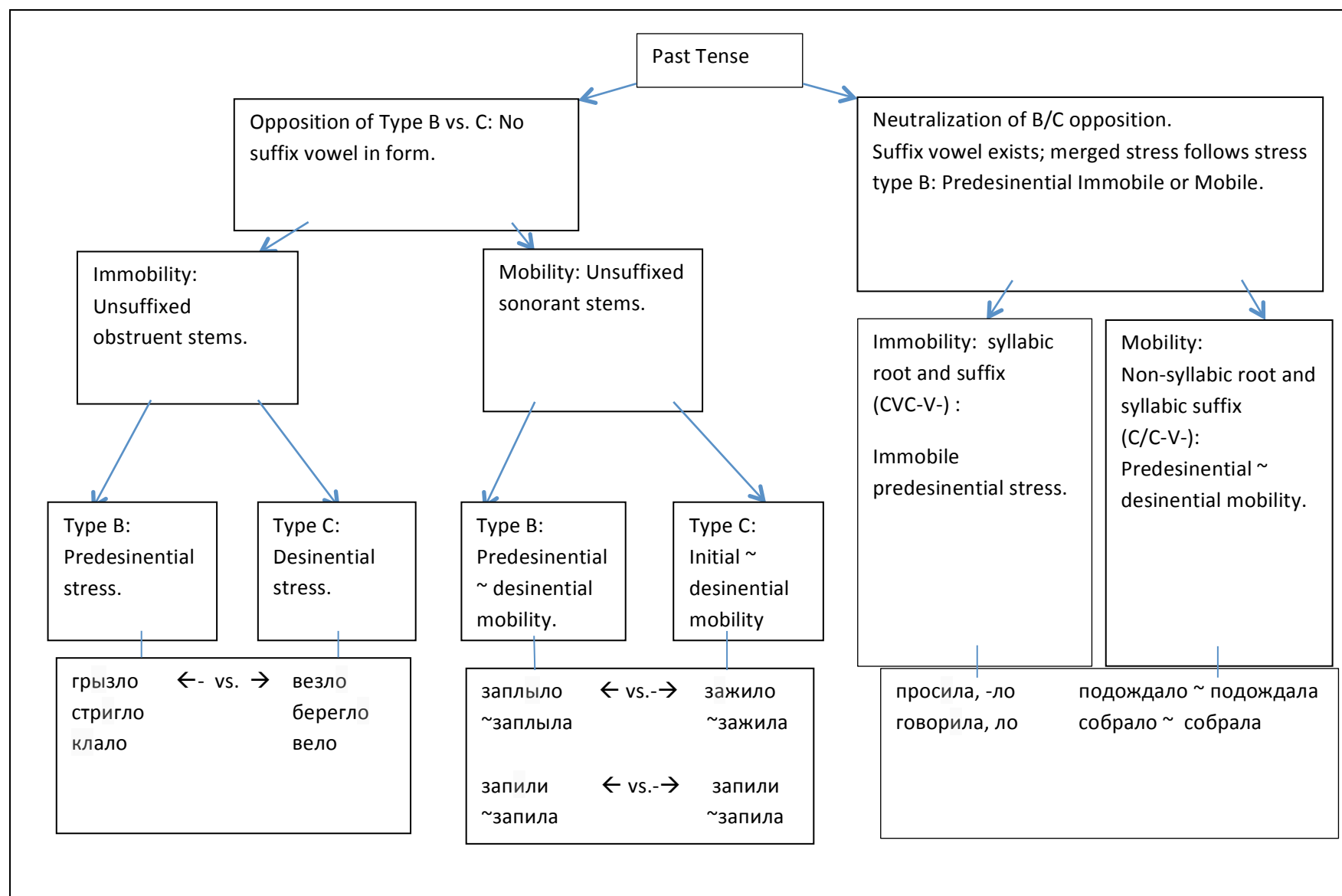


Table 6. Binary oppositions and distributions of stress in the past tense. Note that *зани́ть* with B mobility in the past has the meaning of ‘wash something down with a drink’, while *зани́ть* with C mobility means ‘start drinking to excess’. E.g. *хлеб зани́л водой* vs. *зани́л на Маслянице*.

The chart of past tense stress demonstrates two of the most typical binary splits in the Russian stress system of the verb. First, there is a split of B/C opposition vs. neutralization, based on the verbalizing suffix. Next, there is a split between mobile and immobile types, based on stem structure. Nouns of type C have a similar binary split into mobile and immobile types, but it is based on grammatical desinences, rather than stem structure. Furthermore, the verb differs in its system of neutralization in the presence of a verbalizing suffix in the form. One may ask why the verb has the pattern of neutralization, due to a vocalic suffix, in contrast to the noun. I would say that this is a result of the fact that verbalizing suffixes have largely lost their derivational properties (e.g. *писать*, *плакать*, *говорить*), but still act as derivatives in terms of accentuation (Kuryłowicz, 1962: 441).

Notably, the pattern of the past passive participle demonstrates the same principles as the past tense and can be best understood in terms of two binary divisions:

1. Presence vs. absence of a suffix vowel. A suffix vowel in the participial form precludes the type B vs. type C stress opposition. However, instead of merging as predesinential stress, as in the past tense, there is a retraction to one syllable before predesinential.
2. If a suffix vowel is absent (either not in the base form or deleted), the past passive participle follows the past tense stress.

Past participial stress is shown in table 7. For more detailed information, see Feldstein (1986, 55-61).

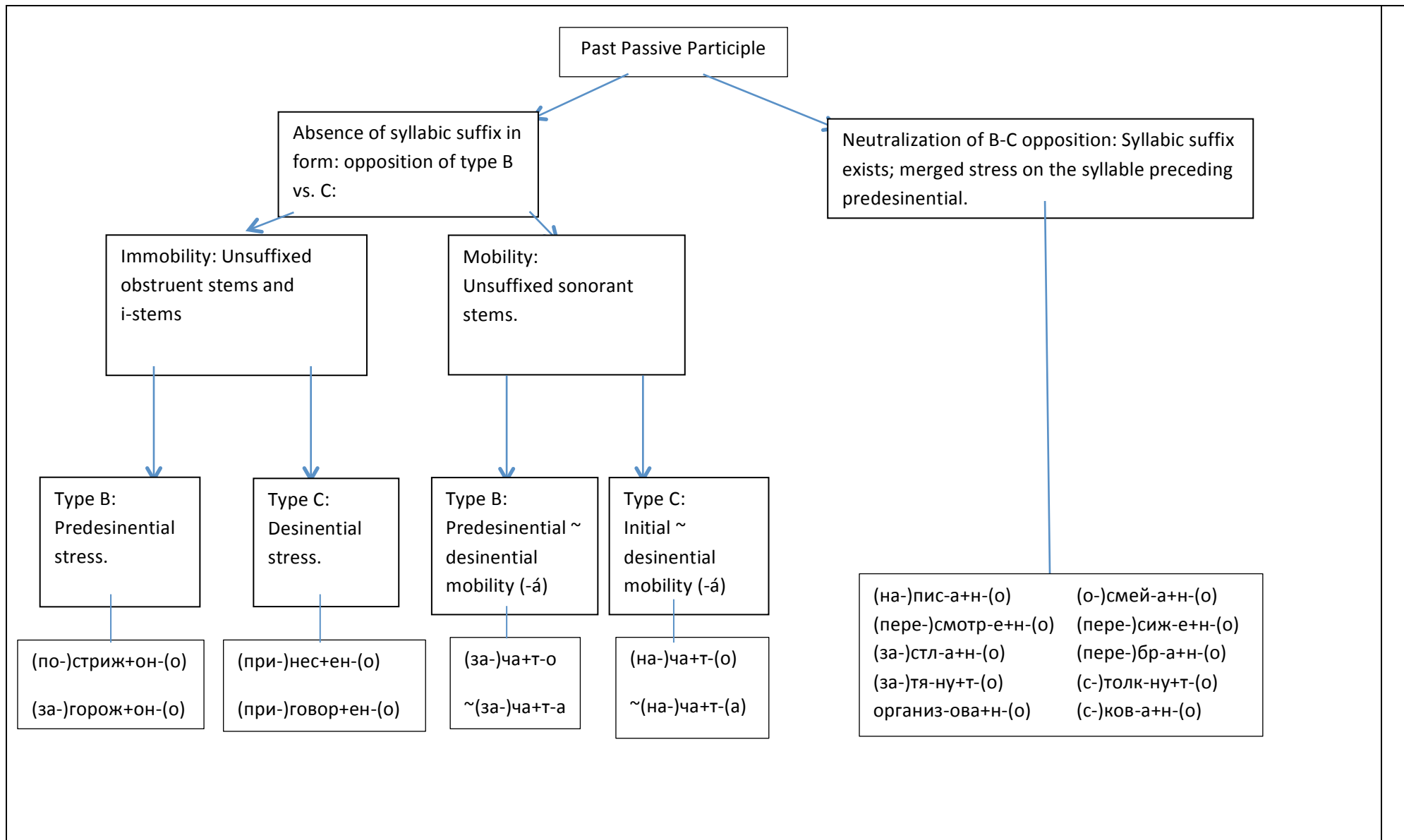


Table 7. The binary relations of past participial stress, closely corresponding to the pattern of past tense stress, shown in table 6.

VII. Adjectival stress.

Generally speaking, adjectival stress is very similar to that of the noun. In the attributive (long) form, type A refers to constant stem-stress in the full paradigm; type B refers to predesinential stress in the attributive form, matched to another pattern in the predicative form (thus, not of the constant stress type); type C has desinential stress in the attributive form. As we often see, if either type B or C is defined by its distinctive property (predesinential or initial stress, respectively), the other type may well use desinential stress. This leads to a situation in which desinential stress may represent type B (in opposition to initial) or type C (in opposition to predesinential). This is clearly exemplified in the adjective, in which an adjective of the attributive subparadigm with of type C has desinential stress, while desinential stress for a predicative adjective is type B. This situation occurs because the attributive opposition is B/predesinential vs. C/desinential, but the predicative opposition is B/desinential vs. C/mobile initial ~ desinential. This is shown in table 8.

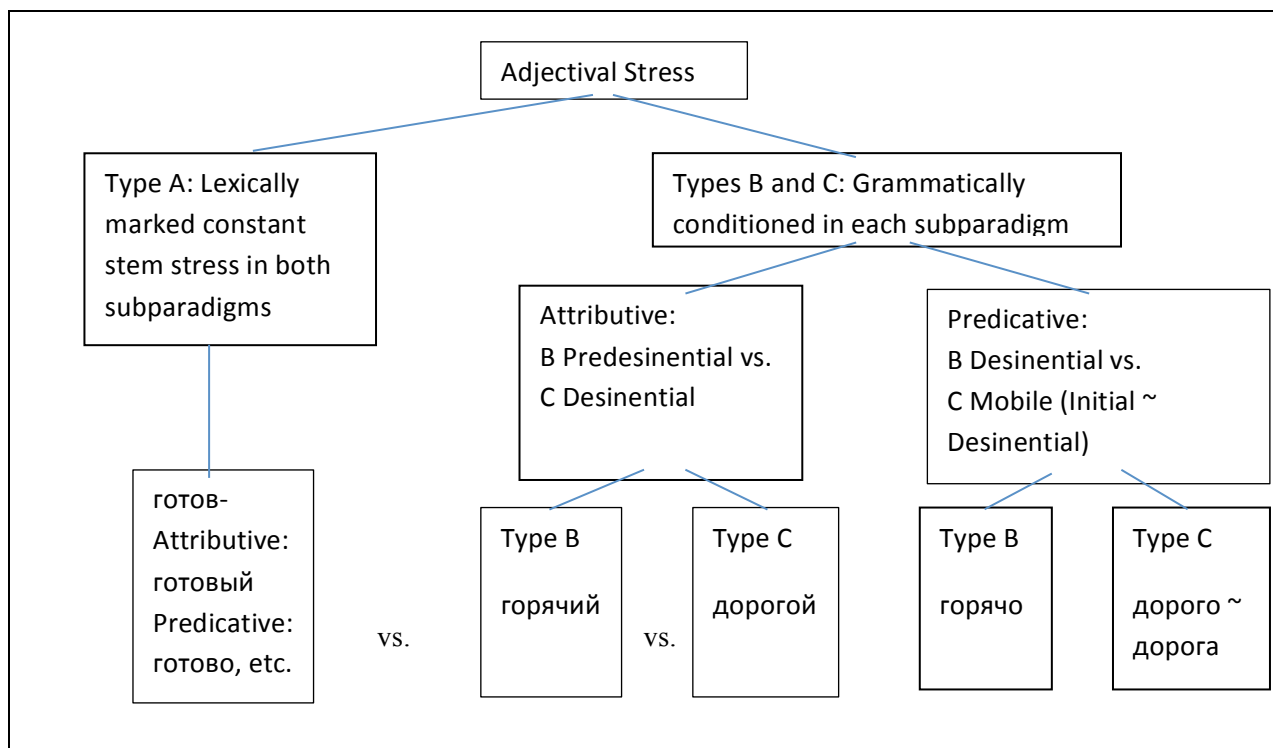


Table 8. Binary oppositions of stress in the attributive and predicative adjective.

We may note the simplicity of adjectival stress compared to that of the noun and verb. Summarizing, we can say that the noun has many subtypes of B and C type stress, which are conditioned by the sonority of particular case desinences in the subparadigms, including forms of the direct cases, genitive, and locative. In the verb, the stem structure determines the precise accentual manifestation of types B and C, including the presence or absence of a post-root vocalic suffix and the sonority of stem-final consonants. The adjective, particularly the predicative form, can have many variant forms, where either B or C is acceptable or both are in free variation

(e.g. the predicative of *старый* can be either type B or type C). However, this does not change the fact that there is no complex system of subtypes, as found in the noun and verb.

VIII. Mixed types

In order to present the basic oppositions of types A, B, and C in the noun, verb, and adjective, examples were chosen which represent the same types in both subparadigms. However, the full stress inventory of regular types includes two mixed B and C types, i.e. BC and CB, where one subparadigm may follow B and the other follows C. The following lists show examples of the five inventory types for the three major parts-of-speech. For the purposes of this inventory, when a vocalic verbal suffix is present and type B vs. C opposition is neutralized, the listed type is B, if the merged value corresponds to type B (predesinential stress).

A. Nouns

AA: ра́к, ладо́нь, ли́па, я́блоко

BB: сто́л, пу́ть, жена́, колбаса́, веретено́

CC: зу́б, во́лк, но́чь, лебе́дь, голова́, зе́ркало, мо́ре, у́хо

BC: гво́здь, губа́, очко́, существо́

CB: сад, по́л, да́р, во́з, вода́, о́зеро

B. Verbs

AA: ле́зть, ста́ть, ста́вить, пла́кать, тре́бовать

BB: проси́ть, кури́ть, учи́ть, писа́ть, показáть

CC: жи́ть, плы́ть, запи́ть 'start drinking to excess'

BC: мо́чь, обня́ть, сня́ть

CB: гры́зть, па́сть, стри́чь, бра́ть, говори́ть, сиде́ть, кова́ть, запи́ть 'wash down'

C. Adjectives

AA: гото́вый, жесто́кий

BB: горя́чий, вели́кий

CC: доро́гой, подро́дой

BC: бы́стрый, о́стрый, ста́рый

CB: сме́шной, больно́й

In actual practice, the dictionary would have an accent mark on stems that belong to type A and that syllable would be stressed throughout. All other types would be marked as BB, CC, BC, or CB, except for the statistically few anomalous entries that do not fit any of the five categories. For example, if the entry for *веретено́* is marked BB, one must know the basic rules for noun stress of type B, i.e. that it depends on the zero or non-zero value of the genitive. That information would then yield the correct stressed forms in the singular and plural. Similarly, the noun *во́лк* would be marked CC and one would have to know the rules for type C stress placement in the noun, etc. The alternative to knowing these basic rules of stress placement is the

multiplicity of stress types that is found in virtually all handbooks. However, if one assumes that it is better to learn the underlying rules, then it is possible to operate with the greatly reduced inventory of types presented above. Note that the difference between the predicative masculine singular of *смешной* and *больной* (i.e. *смешо́н*, but *боле́н*) is related to the issue of how the mobile vowel is treated. In a previous paper (Feldstein, 1979: 37-8), I proposed that there are two types of morphophonemic mobile vowel, one in the basic form and another inserted at a later stage, accounting for the difference of stress. This paper has emphasized the regular system of stress, largely based on binary oppositions and the principle of constant stem stress across the full paradigm, as opposed to the morphophonemically conditioned stress found in types B and C. However, exceptions do exist, often in narrow semantic sets. As briefly noted above, one such exception occurs in a set of words largely consisting of loan words from Caucasian and Central Asian languages, as well as Church Slavonic, in which plural type B stress is desinential, rather than predesinential, in spite of the zero genitive plural (e.g. *черты́*, *тамады́*, *кишки́*, etc.; see Zaliznjak, 1967: 166 for discussion). Another exceptional semantic group is found among agentive nouns with the suffix *-ор* or *-тель* (roughly equivalent to English ‘-er’, in which a type A singular, stressed on the medial syllable, has an anomalous type B plural with desinential stress (e.g. *профе́ссор/профессора́*, *учи́тель/учителя́*), cf. Kuryłowicz, 1946/1962: 441. In spite of these minor exceptions, it is clear that the general pattern of binary opposition, based primarily on lexical vs. morphophonemic stress, and, secondarily, on initial vs. predesinential stress, is the basis of the Russian stress pattern.

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