A Study on Russian Inflectional Accentology

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0. The present paper is an attempt to give an orderly description of Russian inflectional accentology, substantival and verbal. Since many works have been done on this subject matter, it would be useful for our purpose to point out briefly what they share and to discuss in some length what they do not. I will incorporate their achievements in the present paper, and for some controversial points, I will propose my own solution.

1. Previous descriptions on Russian inflectional accentology can be said to have clarified, among other things, the following facts. Firstly, many studies on the classification of lexemes in terms of their stress behavior (Red’kin 1971, Fedjanina 1982, Zaliznjak 1967 and 1980, Shapiro 1986, among others) indicate that there are several accentual patterns holding in the substantive and the verb. And every individual lexeme belongs to one of these patterns; put differently, to which accentual pattern a given lexeme belongs is essentially a property of the lexeme itself. Secondly, a certain grammatical distinction(s) can be made by means of, or with a help of, stress: cf. ruki ‘hand;GSG’ vs. rük ‘hand;NPI’, žena ‘wife;NSG’ vs. ženy ‘wife;NPI’, voda ‘water;NSG’ vs. vódu ‘water;ASG’, žil ‘live;M/Pt’ vs. žilá ‘live;F/Pt’, etc. Thirdly, there are two sources for surface stress mobilities: morphophonemic and phonemic. The former involves mobilities motivated by certain morphological contexts; for instance, desinence-stress in the singular (óknó okná oknú oknöm okně) vs. stem-stress in the plural (ókná ókně...
In contrast, the latter type of stress mobilities takes place when stress falls morphophonemically on a zero segment or on a vowel that is deleted at the phonemic level. For instance, the stress alternation in word-forms like *stól* stólá stólú stólóm stólɛ is not an instance of the morphologically conditioned stress mobility, but rather, one of the phonemic mobility. Stress falls morphophonemically on the zero morpheme (here, the NSg morpheme) is retracted from it to the immediately preceding syllable when the zero is not realized phonemically (and thus phonetically). The same can be said of the ISg form of some III-declension nouns, if one views the desinence of feminine ISg case as (ouj), where the final vowel is optionally (stylistically) deleted for II-declension nouns while the first vowel is obligatorily deleted for III-declension nouns. Now, since the first vowel is deleted during the inflectional process, the stress that falls on it must be moved one syllable backward; thus, gluš' (phonemic mobility) gluši gluši gluš'ju (phonemic mobility) gluši.¹

While these facts can be said to be shared by many specialists on Russian stress, there are several problems that need to be discussed. For one thing, many scholars consider stress movement in the L-II case form as relevant to a grammar of the Russian stress. Thus, in Zaliznjak (1985: 16) the accentual pattern of those lexemes with the L-II is denoted «+P2». In Halle’s description (1973: 316) they belong to what he calls (cn). It is my contention however that the stress movement in the L-II case form is not an accentual property of lexemes having it, but rather a property of the case itself. If one wants to recognize stress shift in the L-II case form, as does in the ASg or in the NPl, then there must be more than one lexeme, which would be opposed accentually to each other (some lexemes having stem-stress, but others desinence-stress in their L-II case forms) without any

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¹ This way of handling stress movement in the ISg case forms spares us the two accentual patterns which Zaliznjak (1980:32) called b’ and f’.
semantic meaning change. However, there is not found such an accentual opposition in Russian. This means that the stress protraction in the L-II case form in some masculine nouns ({{ú}}) and in some feminine nouns with III-declension ({{í}}) must be considered the accentual property of the case itself, rather than that of individual lexemes: the motivating source for the stress protraction is the case itself. One cannot say that the stress retraction in the A$\Sigma$g or the NPl is the accentual property of the case itself, since not all lexemes show the retraction in the A$\Sigma$g or in the NPl. Thus, it is a better decision that L-I and L-II are two subcases which are semantically (signification of 'pure location') and formally (stem-stress vs. desinence-stress, being accompanied by desinence alternation in case of masculine nouns) opposed to each other.

Another problem to be mentioned concerns the accentual rule which Halle terms CIRCUMFLEX rule. The purpose of this rule is to place stress on the initial syllable of word-forms that have "a stem without inherent stress" and further are "exempted from the Oxy rule (Halle 1974: 317 and passim)." Here, what the Oxy(tone) rule does is to assign stress to the final vowel (more specifically, to the desinence-initial vowel) in word-forms containing stems with no inherent stress. Thus, in Halle's description, stem-stress in vōdu is assigned by the CIRCUMFLEX rule, since the stem {vod-} is inherently stressless and the word-form {vōd-u} is specifically marked [-Oxy] as its idiosyncratic property in the lexicon.\(^2\) The problem is however that Halle considers words like pōrōx 'powder' as being subject to his

\(^2\) What is implied in Halle's description is that all inflected word-forms of a lexeme are stored in the lexicon. Without any discussion on this view in this paper, I simply assume that all word-forms of a lexeme are produced from the posited underlying base form by morphological rules, which formulate all declined case-forms in the substantive and all conjugated person-gender/number forms in the verb. What is stored in the lexicon is a set of underlying base forms with idiosyncratic properties on inflection that cannot be produced by the normal morphological rules.
CIRCUMFLEX rule (p. 315). Since these lexemes have consistent stem-stress throughout the paradigm, if one follows Halle's description, he is forced to mark all the declined forms of the stressless lexeme \( \{\text{porox-}\} \) as having \([-\text{Oxy}]\), which we however consider a bad decision. The reason why Halle treats a lexeme of this kind as having stressless stem and being subject to the CIRCUMFLEX rule is that historically it had a circumflex accent. The Late Common Slavic accentology says that a morphological word without the acute accent has an ictus (prominence peak) in the initial syllable, which is traditionally called circumflex accent.\(^3\) However, we also know that the CS ictus, the position of which in a word had been predictable (non-phonemic), was reinterpreted as phonemic stress, and the phonemic pitch lost its phonemicity later in the period of Old Russian; thus, not only the acute accent (CS \(*\text{ko-}^\text{1}\text{r6-ba}\) but the circumflex accent (CS \(*\text{Lp6-ro-xk}\) were reinterpreted as stress accent (thus, CSR \(\text{kor6ba}, \text{p6rox}\)). What this means is that since the period of Old Russian the CS accentology has ceased to be operative. In view of this historical development, it is far more plausible to interpret stem \(\{\text{p6rox-}\}\) as an inherently stressed one like \(\{\text{kor6b-}\}\). The accentual behavior seen in such CSR words as \(\text{za gorod}, \text{na dom}\) (cf. fn 3), is best construed as historical remnants of the CS accentology, either being eliminated from the CSR phonology or being relegated as a non-productive pattern.

Finally, it is a well-known fact that there is an important difference between two kinds of morphophonemic stress shift. In nouns showing

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3) The Common Slavic ictus assignment rule is roughly as follows: (1) an orthotonic word (a word having acute accent) places the ictus on the accented syllable (cf. CSR \(\text{kor6va}, \text{mor6z}\), etc.), (2) a non-orthotonic word called enclinomenon places the ictus on its initial syllable (cf. CSR \(\text{p6rox, g6rod, b6reg}\), etc.), (3) if a phonological word consists of a non-orthotonic word and a proclitic, the ictus is assigned to the proclitic (cf. CSR \(\text{za gorod, z6 ruku, n6 dom, n6kal, pr6byl}\), etc.), and (4) if it consists of a non-orthotonic word and an enclitic, the ictus is placed on the enclitic (cf. CSR \(\text{na6alsj6, prinjalsj6}\), etc.). Cf. Jakobson (1963).
stress alternation between Sg and Pl, stress falling on the desinence in the Sg shifts to the stem-final syllable in the Pl; e.g., vereténó 'spindle;NSg' vs. vereténä '-;NPl'. Contrastingly, in nouns with stress alternation conditioned by a certain case, stress falling on the desinence shifts to the stem-initial syllable in the case form; e.g., storóná 'side;NSg' vs. stórónu '-;ASg'. Needless to say, this distinction must be reflected in any description of Russian accentology. Now, what is problematic and makes different scholars different solutions is the case of nouns which show both accentual alternation and vowel-zero alternation. For example, desinence-stress in pis'mó 'letter;NSg' shifts to the stem-final stress in the Pl, thus pis'ma. However its GPI form is pisem, not *pisém, which we would otherwise expect from the number-marking stress shift rule just mentioned. To handle this problem, Halle (1973:321) proposes what he calls METATONY-B, the effect of which is to move the desinence-stress occasioned by [+Oxy] rule two syllable, rather than one syllable, backward. The reason for forcing Halle to posit a rule like METATONY-B, which, we think, makes a grammar rather complicated and in fact misleading, may well be found in the fact that he assumes two underlying vocalic segments which Lightner called "jers", whose phonetic nature cannot be established simply because they never appear as such on the surface - they are either converted to /e/ or /o/ in some environments or elided to zero in others. Thus, pisem is underlyingly represented as {pis'm+ b'}, where the stress is assigned on the "back jer" by the Oxy rule. Now if the usual Metatony rule would otherwise apply to this form (like vereténó vs. vereténä), then a spurious form would be produced: {pis'm+ b'} -> (Metatony) pis'm+ b' -> (Jer Realization) *pisém. To avoid this, therefore, Halle posits an additional accentual rule, which is the METATONY-B rule. Note however that the application of this rule is limited to those lexemes manifesting the vowel-zero alternation, which, in Halle’s description, is captured lexically by positing the phonetically unidentifiable vocalic elements ("jers") in the place where
the mobile vowel surfaces. However, if we abandon assuming the jers in the Russian phoneme inventory and the vowel-zero alternation is described in terms of an "Epenthesis" rule, we do not need to postulate a rule like METATONY-B. Moreover, in this way we can capture the intuitively clear fact that a word-form with a mobile vowel like pisem and a word-form without it like vereten do share the exactly same kind of stress shift which contributes to distinguish two numbers in the substantive (pis'má pis'má vs. pis'ma pisem; vereténá vereténá vs. veretěna veretěn). To illustrate how our analysis produces surface word-forms pisem and vereten,

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\begin{array}{l}
\text{GPI formation rule} \\
\{p'is'm-\} \\
\text{Inter-M}^5 \ (\text{Metatony}) \\
\{v'er'et'on-\} \\
\text{Epenthesis} \\
p'is'em-0 \\
=v'er'et'\ 0n-0 \\
/p'is'em/ \\
=\ /v'er'et'/\ 0n/
\end{array}
\]

All we need is to state in the grammar of Russian accentology that Inter-M precedes Epenthesis in the rule-ordering.6)

4) For a detailed discussion on this descriptive decision, see Choi Ms.
5) For a detailed discussion about this rule, see section 2.
6) It should be mentioned that there are some lexemes with vowel-zero alternation which appear to be best described by Halle’s METATONY-B: e.g., úzel (vs. uzlú uzlú etc.), úgor’ (vs. ugrjá ugrjú etc.), úgol’ (vs. úgljá úgljú etc.), and a few more. Certainly, the rule can handle these examples. But, I doubt that we really need posit a special rule for the Russian grammar to handle those exceptional cases. Obviously stress shift of this kind is not productive in CSR. Witness the stress variation in úgljá - úgšá. A grammar need not cover all the exceptional cases; as Sapir said, all grammars leak. Exceptions are the rule in any languages. Thus, we treat the deviant forms numerated above as exceptional cases of the phonemic mobility aforementioned; for the majority of lexemes that show vowel-zero alternation and columnar desinence-stress, word-forms with a mobile vowel (i.e., N5g and GPI stress the mobile vowel, not the preceding stem-vowel; e.g., psalmí psalmá, lomèt’ lomít’, ogún’ ogúná, orél orlá, solov’jí solov’já, mošná mošn, and
To summarize what is said up to now, firstly, the stress shift in the L-II case in some masculine I-declension and feminine III-declension nouns is viewed not as forming an independent accentual pattern in Russian, but rather as an accentual property of the case itself, secondly, we do not interpret such stems as pórox with historically circumflex accent as stressless, but rather as stressed, and finally, we do not posit an accentual rule like METATONY-B rule in a Russian grammar.

One final note. In this paper it is assumed that in Russian there are two stem types with respect to stress: tonic (stressed) and atonic (stressless). A tonic stem is a stem which places stress on an underlyingly given stem-syllable. When a stem is atonic, its word-forms place stress on the initial syllable of the desinence. Whether a given stem is tonic or atonic is determined by stress position in the NSg form for substantives and in the infinitive for verbs, except for lexemes, whose other inflected forms suggest other choice.熊 Bearing in mind these points made in this section and previous achievements, now let us discuss the substantival accentology.

2. In order to describe accentual properties of substantive-lexemes, it is necessary to classify them in terms of accentual patterns. A simple way of doing this is to recognize three "accentual paradigms" for each of four declensions (I-declension, II-declension, III-declension, and PI-declension); consistent stem-stress will be designated here A, and consistent desinence-stress, B. There is an accentual paradigm, designated traditionally C (Fedjanina 1982, for example), where a single case form stresses other syllable than the syllable on which all other

many more. Cf. {psalm-} -> (Morph. rule for NSg) psalm-ø -> (Epenthesis) psalom-ø -> (Phonemic M.) /psalom/. Cf. section 2.

7) Substantival lexemes, where the NSg has stress in the stem-final syllable due to the Phonemic Mobility but other forms have desinence-stress, are considered atonic (e.g., {stol-}) for stól etólæ stólæ stólæm etólæ. Similarly, velar stem verbs like neb', berëc, etc. have atonic stem; thus, {p'ok-} for pëc' peká pečëc' pek peklå.
remaining forms place stress. It is of some importance at this moment to appreciate the fact that there is no lexeme in Russian which in one and the same declensional paradigm would have a deviated stress in more than two case forms (ignoring the case of “case syncretism”). If a lexeme has a mobile stress paradigm, then the mobility will take place only in one case form (specifically, the Acc form in the singular paradigm and the Nom form or the Gen form in the plural paradigm). In this paper, such a 'mobile' paradigm will be designated ‘A’ . Thus, A’ means that all case forms stress a specific stem-syllable except for one case form with desinence-stress; similarly, B’ means desinence-initial stress in all case forms except for one case form with stem-stress.8)

Since most lexemes have both Sg and Pl forms, their accentual pattern is characterized by combining two of the three accentual paradigms. The following combinations are found in the substantive: AA, AB, BB, BA, AB’, BB’, B’A, B’B’, and BA’.

AA  stem-stress both in Sg and Pl.
I-declension, M: råk råka råki rákov; plén, véter, pórox, gôróx, aëropört, etc.
I-declension, N: kréslo krésla krésel; právilo, zóloto, bolóto, etc.
II-declension: kárta kárty kárty kárt; kníga, múzyka, koróva, etc.
III-declension: postél’ postéli postéli postéléj; glúpost’, etc.
AB  stem-stress in Sg, and desinence-stress in Pl.
I-declension, M: gol gólá golý golóv; raz, xleb, šar, etc.;
vek vèka vèká vèkov; dom, bort, verx, xólod, gôród, bèreg,

8) Further, if stress alternates in the inflection, the alternation occurs as a rule between stem-syllable and desinence-initial syllable. There are a few examples where stress alternates between stem-syllables: ózero vs. ózera, kólos vs. kolós’ja, návod vs. návod’ja, etc. However, one can view the kind of alternation seen in the latter two examples as motivated by the ‘derivational’ stem-extensional suffix (j). Cf. Worth (1968: 799-90)
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věčer, věer, gólōs, dōktor, kúpol, máster, kólōk, etc.

I-declension, N: město města mestá měst; pōle, délo, móre, téio, zěrkalo, krúževo, oblako, etc.

III-declension: vřěnia vřěmena vreměni výchů římja, plámja, plémja, sěmja, strěmja, těmja, něbo, čúdo, súčno.

BB desinence-stress both in Sg and Pl.

1-declension, M: vrač vračá vračěj; zont, ključ, kot, nož, slon, kověr, ogón', sapóg, etc.

II-declension: čěrá čěťy čěťy čěřt; edá, erundá, kazná, kormá, stat'já, sumá, švejá, trebuxá, skam'já (~ BA'), etc.

III-declension, M: put' putí putí putěj.

III-declension, F: voš' vši voš'ju vši všej; gluš', ljubov', lož', rož'.

BA desinence-stress in Sg, and stem-stress in Pl.

I-declension, M: list listá list'ja list'ev; glazók, zubók, klok, kol, kopýl, loskút, prot, rožók, sopóžók, ščenók.

I-declension, N: kolesó kolesá koléša koléš; bedró, vedró, vesló, vinó, gnezdó, dno, oknó, pis'mó, kop'ě, voloknó, dolotó, polotnó, remesló, vereténó, etc.

II-declension: kolbásá kolbásy kolbás; bedá, bloxá, vojná, grozá, desná, zvezdá, straná, tolñá, skorlúpá, strekozá, pastilá, glubíná, krasotá, etc.

AB' stem-stress in Sg, and desinence-stress in Pl except for N.

I-declension, M: bog bogá bógi bogóv; páren', volk, vor, gost', gus', zver', cěřt, vóló, gólub', želud', kárnen', lébed', lékar', lókot', nógot', óvošč, sážen', úgol', gósipal', etc.

I-declension, N: úxo úxa úši ušěj; úko úka úči učej.

II-declension: dólá důli důli dólěj; derévnija.

BB' desinence-stress both in Sg and Pl except for NPl.

I-declension, M: kon' konjá koní konjami; gvozd', červ', gruzd' (~ AB')

I-declension, N: plečo plečá pleči plečám; krýl'co (~ BA)

II-declension: slezá slezý sležy sléž slezám; bloxá, reká, volná, gubá, zarjá, kopčá, mežá, nozdrjá, svečá, ser'gá, strofá, tropá, ščepá, borozdá, golová, železá, polosá, prosvirá (prosforá), prostynjá, slobodá, skovorodá.

B'A desinence-stress in Sg except for A, and stem-stress in Pl.

II-declension: vodá vodý vódy vódam: drogá, zimá, cená, spiná, dušá, verstá.

B'B' desinence-stress both in Sg and Pl except for A, Sg and NPl.


BA' desinence-stress in Sg, and stem-stress in Pl except for G.

I-declension, N: jajčo jajčá jajča jajčami; kol'c, okná (~ BA), gumná (~ BA).

II-declension: ovča ovčy ové ové ovčami: sem'já, sestrá, svin'já, ser'gá (~ BB'), sud'já (~ BA), skam'já (~ BB), sud'bá (~ BA), doská (~ BA), zemljá (B'A').

There are several points to be discussed about some of these dissyllabic accentual patterns.

First, most dissyllabic masculine nouns with AB stress the initial syllable of their stem in the Sg (cf. the examples above). However, the reverse is not true; not all dissyllabic masculine nouns that place the stress on the stem-initial syllable in the Sg have AB (cf. pórox AA, vété AA, etc.). In trisyllabic stems having A, the stress may fall on the non-initial syllable (cf. professor profavorá, konduktor konduktorá.

9) Besides the examples here, the following pluralia tantum nouns belong to this accentual pattern (A'): xlooty, děti, and ljudi. Cf. fn. 19.
direktor direkтора, учител учителja, господин господá, etc.). It is notable that none of the feminine nouns have this accentual pattern. Stress variation (old AA ~ new AB) seen in many masculine nouns (cf. tókar', vérox, kúzov, kitel', kórob, kórpus, láger', nébod, órder, ómut, púdel', trákтор, instruktór, prolékтор, etc) indicates that AB is the productive pattern for masculine nouns in modern Russian. In other words, many masculine nouns that once had fixed stem-stress throughout the sg and pl paradigms have now acquired the productive accentual mobility, i.e., accentual mobility conditioned by the grammatical number distinction. One might interpret this stress variation as reflecting a historical change from previous tonic (stressed) stem to atonic (stressless) stem in many of these nouns, which is implied in Halle's (1973) discussion. It is of course true that vérox, kórob, etc., historically were atonic (enclinomena), but it is difficult to accept that they are still atonic in modern Russian (cf. section 1) and further that even previously tonic (acute) nouns such as máster, jákor', párus, etc. (Zaliznjak 1985: 132), which now have AB, should be treated as atonic. It would be most appropriate to view that the former examples (vérox, etc.) became tonic after the prosodic change from the pitch accent to the stress accent in the period of Old Russian, while the latter examples (máster, etc.) have remained tonic throughout the history of the language.

Secondly, all nouns that have stress alternation with the type BA are non-masculine except for a few masculine nouns, some of which have stem-extension (i) inducing consonant mutation in the plural (cf. klok kłóč'ja, kópfi kópfi'ja, etc.) and the others have suffix (k) (cf. glazók glážki, zúbók zúbki, etc.). The non-productivity of BA for masculine

10) In Halle's description, as mentioned in section 1, those nouns having AB are marked [-Oxy] in all singular forms. This suggests that they are underlyingly atonic stems, which would have undergone the Oxy rule in all conjugated forms, but thanks to the marking [-Oxy] are subject to the Circumflex rule in their singular forms.
nouns is witnessed in the fact that kazák show stress variation, i.e., old BA – new BB. In this connection, it is interesting to note that, aside from neuter nouns that can utilize both types, the alternation between desinence-stress in Sg and stem-stress in Pl (i.e., BA, B’A, and BA’) is reserved for the II-declension feminine noun with the NSg desinence-stressed, while the stress alternation between stem-stress in Sg and desinence-stress in Pl (i.e., AB and AB’) is most productive for the I-declension masculine noun and the III-declension feminine noun with the NSg stem-initially stressed. It follows from this that the two productive types of stress alternations conditioned by the number distinction are complementarily distributed with respect to gender and declension type.

Thirdly, the pattern AB’, on the one hand, and the patterns BB’ and B’B’, on the other, both of which in the plural subparadigm show mobility (from desinence-stress to stem-stress in NPl), are different from each other in terms of stability of the mobility. The former, which manifests itself largely in the masculine noun and the III-declension feminine noun, is stable and productive for these nouns. For the productivity of AB’ for the masculine noun, witness the stress variation in gruzd’ which is one of a few masculine nouns with BB’ but now shows the variant stress (gruzdí – gruzdí gruzdí BB’ – gruzd’ gruzdí gruzdí AB’). In contrast, many II-declension feminine nouns with BB’ or B’B’ show stress variants, whose target pattern is BA.


11) No neuter noun shows BB, however.
12) There are only two neuter nouns (cf. oko and úxo) and two II-declension feminine nouns (cf. dějja and derěvnja).
What this stress variation suggests is that stress mobility conditioned by a particular case form in the plural (and also in the singular in B'B and B'A) is now losing its productivity for the II-declension feminine noun. This can be viewed as the diminution of the number of thus marked nouns in the Russian lexicon. This comparison between the I-declension masculine noun and the III-declension feminine noun having case-marking alternation, on the one hand, and the II-declension feminine noun with case-marking alternation, on the other, makes it clear that there is a crucial difference between these two classes of substantives in terms of productivity of the 'intra-paradigm' mobility (i.e., case-marking stress alternation). Taking into consideration this point and the point made in above paragraph, the traditionally accepted statements to the effect that in CSR the stress alternation of 'intra-paradigm' mobility is losing ground while the stress alternation of 'inter-paradigm' mobility (i.e., number-marking stress alternation) is becoming productive (cf. Krysin 1974), though essentially correct, must be qualified in such a way as suggested in our discussion. The non-productivity of 'intra-paradigm' mobility is valid not for all classes of substantives, but only for the II-declension feminine noun. The productivity of 'inter-paradigm' mobility also depends on noun-classes; for I-declension masculine noun and the III-declension feminine noun, the AB type of mobility is productive, while for II-declension feminine noun the BA type of mobility is productive. In short, the attested stress innovations and the current distribution of stress mobilities in the non-neuter substantive must be stated with reference to gender and declension types. It should be noted at this point that although the number of II-feminine nouns marked with the 'Intra-paradigm' mobility

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13) In fact, the non-productivity of 'intra-paradigm' mobility is valid only for those II-declension feminine noun with the mono-syllabic stem. See immediately following discussion.
is diminishing it does not necessarily mean that the 'Intra-paradigm' mobility as an accentual rule is disappearing from the Russian grammar, since it is still grammatically effective for the I-masculine and the III-feminine noun marked as having the mobility as their accentual property in their lexical entry. The grammatical validity of the 'Intra-paradigm' mobility in the Russian grammar is supported also by the fact that I turn to now.

Fourthly, those II-declension feminine nouns which have both disyllabic (and trisyllabic) stems and B’ paradigm in the plural do not show the accentual variation mentioned above. See the examples below.

polosá (B’B’, BB’, but *BA), borodá (B’B’, *BA), boroná (B’B’, BB’, *BA), borozdá (B’B’, BB’, *BA), železá (BB’, *BA), prostynjá (BB’, *BA), slobodá (BB’, BA), skovorodá (B’B’, BB’, *BA), golová ‘head’ (B’B’, *BA), golová ‘leader’ (BB’, *BA), storona (B’B’, *BA)

B’ accentual paradigm in the plural is quite stable in these nouns, which is contrasted with the instability of the B’ paradigm in the mono-syllabic II-feminine noun. This observation then raises a question:

14) Thus, the fact that, for example, skatert’, which had ‘Baritone’ paradigm in Old Russian (i.e., columnar stem-stress; cf. Zaliznjak 1985: 133), now shows AB’ but not AB indicates that the Intra-paradigm mobility is productive for the III-feminine noun. Note also that Borunova et al. (1983) prescribes skatertej as incorrect.

15) Cf. in OSRJ (1983) and Zaliznjak (1980), prosvirā − prostorā ‘(communion) bread’ is with BB’; Ožegov (1949/1982) reports prosvirā BA − (BB’) with no information on prostorā; in the four-vol. academy dictionary (1987), prosvirā with BA − BB’ and prostorā with BB’. Recently, in the dictionary of Ožegov & Švedova (1993), prosvirā is reported as having BA − BB’, while prostorā has only BB’, thus following the four-vol. academy dictionary. Interestingly, in Ožegov (1949/1980) BB’ is put in the parenthesis, which is removed in the dictionary of Ožegov & Švedova (1993). This may well indicate that BA is being eliminated in favor of BB’, which is the pattern that OSRJ (1983) and Zaliznjak (1980) assign to this lexeme.
why these two classes of II-feminine nouns respond differently to the on-going accentual innovation? The answer to this question can be sought in the fact that the 'Intra-paradigm' mobility is grammatically valid in the current Russian grammar. It should be recalled that this mobility is characterized as shift from desinence-stress to stem-initial stress (or stem-stress to desinence-initial stress), conditioned by a certain grammatical category (ASg or NPl case). In contrast, the 'Inter-paradigm' mobility is characterized as stress shift from desinence-stress to stem-final (pre-desinential) stress, conditioned by the grammatical number category. Now, if the lexemes with non-monosyllabic stems would manifest the alternative accentual pattern AB as, for example, reká (reká reká vs. réki rek rékam) does, following the stress position of the NPl case form (e.g., gólový),16 then it would result in the following contrast: golová golový vs. golový golov golovyam, where the stress alternates between desinential syllable and stem-initial syllable, which is the characteristics of the 'Intra-paradigm' mobility, not of the 'Inter-paradigm' mobility. This type of accentual alternation is nowhere attested in modern Russian.17 This explains the impossibility of introduction of the accentual innovation in the lexemes under consideration. For nouns with monosyllabic stems like reká, the innovation does not cause any conflict between these two types of mobility; previously, reká rekí réki rek rekam > now, reká rekí réki rek rékam.18

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16) The target case form of this accentual innovation is the Nominative.
17) TJagotá appears to be an exception: tJagotá tJagoty tJagoty tJagot. However, this word is considered archaic in the literary language (Zaliznjak 1980; OSRJ 1983). And when it means 'weight', tJagost (AA) is used instead, while tJagotá has AA in the meaning of 'trouble, difficulty' and usually the plural form is used. Cf. also, fn. 13.
18) It should be mentioned that the overt change from rekám to rékam involves a covert change in NPl rekí, where overtly no accentual change has taken place. Specifically, previously, the stem-stress in réki was the result of the 'Intra-paradigm' mobility (from desinence to stem-initial syllable), but now, is the
Finally, there are a handful of lexemes (BA') which have 'Intra-mobility' in the GPI. Most descriptions on Russian accentology do not acknowledge independency of this pattern (cf. Red'kin 1971; Halle 1973; Zaliznjak 1980; Fedjanina 1982) and treat the (morphophonemic) desinence-stress in the GPI as exceptional. This treatment appears to be reasonable, considering the fact that some of them acquire the alternative pattern, BA (e.g., oldсудеб - new судей; substandard окон - standard окон; судей - судей; accepted гумен - гумен). Further, it appears not very convincing to introduce one more lexical marking only for these nouns in the substantive. However, this pattern cannot be said to be totally devoid of productivity (cf. Worth 1968). For example, сер'га, which previously permitted only BB' (сер'га сер'ги сер'гам), now also admits BA', but not BA. In fact, сестра, свин'я, овца, etc. once had the desinence-stress not only in the plural oblique case forms, but also in the NPI; a stress innovation took place at first in the NPI (i.e., сестры > сестры) and later spread out to the other plural oblique forms except the GPI form (сестрам > сестрам; cf. Zaliznjak 1985: 135; and also, consider the proverb всем сестрам по сер'гам, where we find desinence-stress in the DPI form), thus now having BA'. The synchronic stress variation witnessed in the lexeme сер'га can be said to follow the diachronic stress innovation attested in сестра, свин'я, овца, etc. Now, if one considers that BA is the productive pattern for the II-feminine noun (cf. previously, жен'я жен'ям), the blocking of the extension of stem-stress in the GPI of these lexemes becomes strange. It seems that this is partly because of some productivity of this accentual paradigm and partly because of their formal peculiarity, i.e., they all have a mobile vowel in the GPI.19) Note the accentual variation in скам'я, which also has a

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19) There are a few lexemes with BA', which do not show a mobile vowel: хлопоты
mobile vowel in the GPI; BB skam'ji skam'jé skam'jám – BA' skám'ji skaméj skám'jám, which also indicates that the mobile paradigm (A') in the plural has some productivity. Whatever the source of blocking may be (cf. Choi Ms), therefore we can say that the GPI-marking stress shift is, though marginal (cf. súdeh, súdei, gúmen), effective in the 'present' Russian grammar.

Bearing in mind the points made in the foregoing discussion, now let us turn to our first goal: the way of describing the substantival accentology. I contend that stress assignment in the declined word-forms of a lexeme can be performed on the basis of stress properties of the lexeme; more specifically, whether the given lexeme is tonic or atonic and whether it has any special lexical marking with respect to stress alternation. As mentioned in section 1, whether a lexeme is tonic or atonic is determined by its unmarked case form, which is the NSg form. The grammar of stress assignment consists of two accentual rules and statement on the rule-ordering between relevant rules. The two rules are what I have called 'Inter-paradigm mobility (Inter)' and 'Intra-paradigm mobility (Intra)'. 'Inter' applies when a lexeme is lexically marked as having the number-marking stress alternation (INTER). Its effect is as follows: (i) to shift underlying stem-stress to desinence-initial stress or (ii) to shift underlying desinence-initial stress to stem-final (pre-desinentia) stress. Which one of these two subrules is to be chosen is determined by whether the given lexeme is tonic or atonic; when tonic, (i) applies, and when atonic, (ii) applies. Further, 'Inter' applies to the whole subparadigm, i.e., to all the case forms of a subparadigm. On the other hand, 'Intra' applies when a lexeme is lexically marked as having the case-marking stress alternation (INTRA). It consists of two subrules: (i) to shift underlying or derived stem-stress to desinence-initial stress

(xlénot, xlénotam), déti (detę, déti, detjam), and liúdi (líuděi, líudăm). Note however that xlénoty is one of pluralia tantum, and déti and liúdi have the different stem from the singular.
or (ii) to shift underlying or derived desinence-initial stress to stem-initial stress. Again, when the underlying or derived stem is tonic, (i) applies, and when it is atonic, (ii) applies. Finally, a rule-ordering relationship between Inter and Intra must be established: Inter must apply prior to Intra, which will be made clear in due course. Let us demonstrate how to produce surface stress of declined word-forms on the basis of what has been said in this paragraph.

All nouns with fixed stress throughout the Sg and the Pl (nouns with AA or BB) pose no descriptive problem. They do not have any special accentual markings in their lexical entry and thus do not undergo any accentual rules. For instance, rak raka ráki rákov will have underlying stem {rák-}; also, {v’ét’er-}, {pórox-}, {zólot-}, {koróv-}, etc. Similarly, vrač vračá vračí vračéj will be represented as {vrač-’}; also, {čert-’}, {stat’j-’}, {gliuš-’}, etc. Two things must be mentioned about atonic stems. First, the stress appearing on the underlying atonic stems signals that it falls on the desinence-initial syllable; in other words, when a given word-form is produced by a given morphological case-formation rule, the stress automatically falls on the desinence-initial syllable; thus, {vrač-’} \rightarrow \text{(NSg formation rule)} vrač-á. Second, when the stressed morphophonemic zero disappears at the phonemic level, the stress moves to the immediately preceding syllable irrespective of whether the latter’s syllabic nucleus is underlingly given or epenthetically inserted. This is what I have termed ‘Phonemic mobility’ (cf. section 1); thus {vrač-’} \rightarrow \text{(Phonemic mobility)} /vrač/. To illustrate the production process of a word-form with an epenthesized vowel, {ogn’-’}^{20} \rightarrow \text{(NSg formation rule)} {ogn’-’} \rightarrow \text{(Epenthesis)} {ogon’-’} \rightarrow \text{(Phonemic M.)} /ogón’/.

Nouns that have accentual patterns AB or BA will be specified in their lexical entry as having [INTER], which informs that stress.

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20) For arguments for representing the underlying base form of the lexeme with the vowel - zero alternation in this way and for positing the rule of Epenthesis, see Choi Ms.
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alternates between all the singular forms and all the plural forms. Thus, (gōd-') [INTER], (gōrod-') [INTER], etc.; (kol’os-') [INTER], (kolbas-') [INTER], etc. Lexemes thus marked will undergo the morphophonemic stress rule of Inter. From the fact that the underlying stress of a lexeme is determined on the basis of the surface stress of the NSg, it follows that the applicational domain of Inter must be plural forms. To illustrate how this works,

\[
\begin{array}{cccc}
\{\text{gōrod-}\} & & \{\text{kolbas-}\} \\
\text{NSg-for.} & \text{NPl-for.} & \text{NSg-for.} & \text{NPl-for.} \\
\{\text{gōrod-ö}\} & \{\text{gōrod-a}\} & \{\text{kolbas-á}\} & \{\text{kolbas-i}\} \\
\text{INTER} & \text{gorod-á} & \text{kolbás-i} \\
/\text{gōrod/} & /\text{gorodá/} & /\text{kolbasá/} & /\text{kolbási/}
\end{array}
\]

For the correct stress assignment to the word-forms having a mobile vowel, we need to state in our grammar a rule-order holding between Inter and Epenthesis; the former applies prior to the latter.21) Otherwise, a spurious form would be produced. Compare (a) and (b).

\[
\begin{array}{cccc}
\{\text{r’em’os’i-}\} & & \{\text{v’er’et’on-}\} \\
\text{GPl for.} & \text{r’em’os’l-ö} & \text{v’er’et’on-ö} \\
\text{Inter} & \text{r’em’ós’l-ö} & \text{v’er’et’ón-ö} \\
\text{Epenthesis} & \text{r’em’ós’ol-ö} \\
/\text{r’em’ós’ol/} & /\text{v’er’et’ón/}
\end{array}
\]

\[
\begin{array}{cccc}
\{\text{r’em’os’i-}\} & & \{\text{v’er’et’on-}\} \\
\text{GPl for.} & \text{r’em’os’l-ö} & \text{v’er’et’on-ö} \\
\text{Epenthesis} & \text{r’em’ós’ol-ö} \\
\text{Inter} & \text{r’em’ós’ol-ö} & \text{v’er’et’ón-ö} \\
^*\text{r’em’ós’ol/} & /\text{v’er’et’ón/}
\end{array}
\]

21) In fact, all morphophonemic stress rules are stipulated in such a way that they precede Epenthesis, which in turn precedes Phonemic Mobility.
The lexical entry of tonic stems with AB' will have accentual information saying that stress alternates not only between the singular and the plural subparadigms, but also between the nominative and the other case forms within the plural paradigm. Thus, for example, \{bóg-\}[INTER][INTRA-NPI]. The latter marking informs our grammar that the lexeme will be subject to the morphophonemic rule of Intra, when its NPl form has been formulated by the morphological rule. But, in order to produce the correct output, our grammar must have a statement to the effect that Inter must apply prior to Intra. This stipulation on the rule-ordering is intimately related to the fact that Inter applies necessarily to underlying-initial representation, while Intra can apply either to underlying-initial representation or to derived representation. To show how this works,

\[
{\text{NPl for. \ bóg-i \ volost'-i}}
\]

(a) Inter bog-i volost'-i
Intra bóg-i volost'-i
/bóg-i/ /volost'-i/

(b) Inter
Intra bog-i volost'-i
/bog-i/ /volost'-i/

\[
{\text{GPl for. \ bóg-ov \ volost'-ej}}
\]

Inter bog-óv volost'-éj
Intra /bogóv/ /volost'-éj/

Lexemes with B'A are marked [INTER][INTRA-ASg]. Some of them alternatively have BA, which can be captured by putting
[INTRA-ASg] in the parenthesis. To show the stress assignment of the ASg and the NPl of these lexemes,

{cen-'}[INTER][INTRA-ASg] {st'en-'}[INTER][INTRA-ASg]

ASg for. NPl for. ASg for. NPl for.
cen-ú cen-i st'en-ú st'en-i

Inter

Intra cen-u ___ (st'en-u) ___
/cénu/ /céni/ /st'enú'//st'énu/ /st'éni/

Lexemes with BB' will have the marking [INTRA-NPl]; thus, e.g., {sl'oz-'} [INTRA-NPl]. And lexemes with B'B' will have two different kinds of INTRA-markings; thus, {golov-'}[INTRA-ASg][INTRA-NPl]. Finally, lexemes with BA' are marked as having [INTER] and [INTRA-GPl]; e.g., {s'ost'r-'} [INTER] [INTRA-GPl]. Incidentally, zemljá is the most complicated lexeme in terms of stress alternation; it has three accentual markings: [INTER][INTRA-ASg] [INTRA-GPl]. To demonstrate the derivation of some case forms of sestrá and zemljá,

{s'ost'r-'}[INTER][INTRA-GPl] {z'em'l'}[INTER][INTRA-ASg/GPl]

NPl for. GPl for. ASg for. NPl for. GPl for.
s'ost'r-i s'ost'r-ø z'em'l'-ú z'em'l'-i z'em'l'-ø

Inter

Intra

Epen. ___ s'ost'or-ø ___ ___ z'em'el'-ø
Ph.M. /s'ost'ri/ /s'ost'or/ /zém'l'i/ /zém'l'i/ /zém'el'i/

This completes our discussion on the substantival accentology. In the next section, I will provide a grammar for the verbal accentology, showing that the exactly same set of accentual rules and the rule-ordering relationship as postulated in the substantival accentology hold also for the verbal accentology.
3. It is common practice in any description of verbal morphology to distinguish between vocalic and non-vocalic stems. A vocalic stem is a stem with a vocalic element at the stem-final position (e.g., {p'isa-}, {smotr'e-}, {pros'î-}, {r'isova-}, {maxnu-}, {kolo-}), and a non-vocalic stem is a stem ending in a consonant, including a sonorant (e.g., {d'elaj-}, {b'el'ej-}, {moj-}, { zm-}, {ziv-}, {m'ot-}, {v'od-}, {gr'ob-}, {p'ok-}, {b'er'og-}, {t'r-}). This distinction is important also for a description of the verbal accentology. In the substantival morphology, all stems end in a consonant and all desinences begin (morphophonemically) with a vowel (or zero). For this reason, no segmental deletion takes place, when a desinence is concatenated with a stem (cf. Jakobson 1948). In the verbal morphology, however, there are found four logically possible combinations in terms of concatenation of stem-final segment and desinence-initial segment: C+C, C+V, V+C, and V+V. Among these types, it is V+V sequence that bears significance for the accentology. More specifically, a descriptive problem arises when an underlying vocalic stem stresses the stem-final vowel, which is truncated before a vocalic desinence. For instance, the final stressed /a/ of the underlying stem (p'isá-) is truncated before, say, the 2Sg/Pr desinence (oš), and the phonemic output becomes /p'išoš/, where the stress moves one syllable leftward. The accentual shift of this type can be interpreted at least two different ways: morphophonemically and phonologically. The morphophonemic analysis is to interpret the left movement as an instance of the Inter-paradigm mobility. That is, before the stem-final stressed /a/ is elided, Inter applies to (p'isá-oš), which, according to this analysis, would be marked [INTER], occasioning the stress shift and resulting in (p'isâ-oš), which is in turn realized phonemically /p'išoš/ via 'Truncation' and what has been called 'Substitutive Softening'. This analysis however runs difficulty in the face of such stems as (govor'i-),22 whose present forms consistently

22) As mentioned in section 1, I assume that the underlying stress of verbal lexemes is determined by the surface stress position of their infinitive form. This
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stress the desinence-initial syllable (govorí, govoríš, govorí, govoríšte, govoríät). Since it is beyond doubt that the stress shift from stem-final position to desinence-initial position in the verb of this kind is occasioned by Inter, we would have to admit two different sorts of Inter, if we considered /p'íšoš/ as an instance of Inter; the effect of the former is to change the underlying tonic stem into the atonic stem, while that of the latter is to shift the stress from the stem-final position to the immediately preceding stem-syllable. This then would make a grammar on the Russian accentology rather complicated. In fact, there is an alternative way of handling the left movement in /p'íšoš/. It is to view it as an instance of Phonemic mobility, which says that the stress automatically shifts one syllable leftward when it falls morphophonemically on zero or a segment deleted at the phonemic level. Thus, (p'íšá-oš) -> (Truncation & Substitutive Softening) p'íš#'-oš -> (Phonemic M.) /p'íšoš/; similarly, (r'ísová-oš) -> (Truncation & Substitutive Softening) r'ísuj#'-oš -> (Phonemic M.) /r'ísújoš/. Note also that in this analysis there will be no need to mark the stem (p'ísá-) as having [INTER], relieving thus the lexicon of such a marking.

In terms of accentual paradigms, the verb is completely parallel with the substantive. There are three accentual paradigms for each tense subparadigm (present and past) in the verb, too: columnar stem-stress (A), columnar desinence-stress (B), and mobile stress within each paradigm, designated '. Furthermore, there is only one inflected form for each subparadigm where stress shift takes place: in the present paradigm, stress shifts in the 1Sg form, and in the past paradigm, stress shifts in the F form. The 'prime' (Intra-paradigm) mobility in
the present tense paradigm takes place for those vocalic stems whose underlying stress falls on the stem-final vocalic element; e.g., (pros‘i-) prošu prósíš', (tonú-) tonú tóněš', (smotř‘é-) smotří smotříš', etc. Neither non-vocalic stems23) and nor those vocalic stems which stress underlyingly non-stem-final syllable show the Intra-paradigm mobility; (délaj-)*délajú délaléš', (čitáj-)*čitájú čitáš', (pláka-)*pláká plácěš', (otv‘ét‘i-)*otvéčú otvéčěš', etc. On the other hand, the Intra-paradigm mobility in the past tense paradigm is found as a rule for the non-vocalic tonic stem;24) e.g., (pr‘ad-) prija prijál prijalo, (kí‘an-) kljal kljalo, (živ-) žil žíla žilo, (p‘j‘-) 'drink' píl pila pilo, (–cn‘-) 'begin' začal začala začalo, (búd-) 'be' byl byla bylo, (dd-) 'give' dal dalá dálo, etc.

The following accentual patterns are found in Russian verbs: AA, BB, AB, A‘B, AA', (BA).25)

AA stem-stress throughout the present and the past paradigms

i) all derived aj-stems and ej-stems: délaju délalé délala; boléju boléet bolél boléla

ii) syllabic j-stems: dúju dúet dul dúla; móju móet myl myla.

Also, gret', znat', razút', zret', rdet', nlet', smet', spéř', pret', tlet'; brit', kryt', nyt', vyty, ryt'.

iii) syllabic nasal stems: stán stánét stála. Also, det', zastrját', styt'

iv) obstruent stems: lézu lézet lez lezla; sjácju, sjájet, sel sela.

v) nu-‘inchaoitative’ stems: móknu móet mok mókla.

vi) nu-‘semelfactive’ stems: prýgnu prýgnet prýgnul prýgnula.

vii) polysyllabic Ca-stems: rěžu rěžet rězal rězala; koléblju

23) Exceptions: some -njat verbs, e.g., primá primat, obnimá obnámět, etc., and mogú möžet.

24) Exceptions: monosyllabic -a stems, e.g., lgál lgálá lgálao rval rvalá ryálé, rval rvalá rvalo, žral žralá žrálo, brál brálat brálo, drál drálá drálo, zval zvalá zvalo, and rodí rodilá rodilo.

25) There is only one lexeme with BA: lec', legu ližét leg legá.
kolęblet kolebál kolebáła.

viii) ova-stems: ráduju ráduet rádoval rádoval; risáju risüt risovál risovála.

ix) one ča-stem: slýšu slýšet slýšal slýšala.

x) e-stems: vížu vížet vidí videla. Also, nenávídet', zavíset', obídet'.

xi) i-stems: otvěču otvětíti otvětila.

BB desinence-stress throughout the present and the past paradigms—only for obstruent stems

i) t-stems: metú metět měl melá. Also, pěstí, rastí, obrestí, rassvestí, cvestí, gnestí.

ii) d-stems: bljudí bljudět bljudí bljudá. Also, brestí, vestí.

iii) b-stems: grebů grebet greb greblá. Also, skrestí.

iv) k-stems: pěků pecět pěk peklá. Also, seč', vleč', teč', obreč'.

v) g-stems: beregů berežět berež bereglá. Also, perenebréč', žeč', zapřáč', sterěč'.

vi) s-stems: pasů pasět pas paslá. Also trjastí, nestí, spastí, proizněstí.

vii) z-stems: požů požet pož požlá. Also, veztí.

AB stem-stress in the past and desinence-stress in the present.

i) ava-stems: dajú daet davál davála. All -davát', -znávát', and -stavát' verbs.

ii) pet': pojů poět pel péla

iii) non-syllabic stems: b'jů b'ět bǐl bǐla. Also, šit'.

iv) non-syllabic nasal stems: žmů změt žal žála. Also, žat', mjat', raspját'.

v) d-stems: padů padět pal palá. Also, klast', krast', prjast'.

vi) stric': strigů strižět strig striglá.

vii) gryz': gryzů gryzět gryz grýzla.

viii) r-stems: trů trět těr těrla. Also, rasprosterét', merét', perét'.

ix) nu-'semelfactive' stems: maxnů maxnět maxnůl maxnůla.

x) gnut': gnů gnět gnůl gnůla.

xii) monosyllabic a-stems: šijú šiët slal slála. Also, ũkat’ (~ A ′B).

xiii) Ča-stems: molča molčit molčál molčála.

xiv) e-stems: sižú sidít sidél sidéla.

xv) i-stems: prošču prostít prostíla.

AA′ stem-stress in all conjugated forms, except for 1Sg/Pr form.

i) nu-‘semelfactive’ stems: vzgljanú vzgljánet vzgljanúl vzgljanála.

ii) simple u-stems: tonú tónet tonúl tonúla. Also, tjanút’, minút’, obmanút’, pomjanút’.

iii) o-stems: koljú kólet kolól kolóla. Also, borót’sja, molót’, polót’, porót’.

iv) polysyllabic a-stems: pišú pišeš’ pisál pisála.

v) Ča-stems: dyšú dyšit dyšál dyšála.

vi) e-stems: smotrjú smótrit smotřél smotřela.

vii) i-stems: prošů prosit prosí prosíla.

A′B stem-stress, except for F, in the past and desinence-stress in the present.

ii) gnit’: gnijú gníë t gníl gnílo.

ii) non-syllabic j-stems: p’jú p’ët pilá piló. Also, vit’, lit’.

iii) v-stems: živú živet žil žilá žilo. Also, plyt’, slyt’.

iv) non-syllabic nasal-stems: začnú zač nét začál začálá začálo.

Also, vzjat’, perenját’, unját’.26)

v) kljast’kljanút klijanét kljál kljalá kljálo.

26) Many prefixed -čn and -jm verbs stress the prefix-initial syllable in the past: náčal načalá náčalo, prinjá prinjálá prinjalo, etc. This accentual pattern is doubtless a historical remnant, and thus an unproductive pattern. Witness that some of these verbs, which had previously this pattern, have now acquired a variant stress pattern, where stress is assigned to the stem-syllable: začál začalá začálá začálo, perenjál perenjálá perenjálo. This accentual innovation involves a covert change in the underlying property of the stem, i.e., from atonic stem to tonic stem. Previously, (zacn–)[INTRA-M,N,P/Pt], (thus, začnú zač nét začal začalá začálo), but now (zacn’–)[INTER][INTRA-F/Pt] (thus, začnú zač nét začál začálá začálo).
vi) prjast’ (AB): prjad’ prjad’ prjad’ prjad’.


As clear from the above classification, all verbal lexemes are tonic, except for those lexemes with obstruent stems having BB. Recall that it is assumed that the infinitive form determines ‘tonicity’ of the underlying verbal stems. Verbs with a velar stem are best considered atonic, even though their infinitive form stresses the stem-syllable; thus, e.g., {p’6k-} pék pék pék pék pék pék pék. There are some verbs which deserve special comment. Some non-syllabic stems as {-jm}, {-cn}, {m’r-}, {p’r-}, {l’j-} and some non-vocalic stems such as {živ-}, {bud-}, {dad-} show special kind of Inter-paradigm mobility, when they are prefixed; e.g., pónjal pónjala pónjalo pónjali, nácál nácál nácál nácál, úmer úmerla úmerlo úmerli, záper záperla záperlo záperli, dólil dólil dólilo dólili, próžil próžilá próžilo próžili, pribyl pribylá pribylo pribyli, péredal péredalá péredalo péredali, etc. The stress falls on the prefix-initial syllable in all the past forms, except the F where it is assigned on the desinence. One may analyze these prefixed stems as having underlyingly the prefix-initial stress, which for the present forms shifts to the desinence (thus, in our descriptive terms, being subject to Inter) and for the F/Pt form shifts to the desinence (thus, being subject to Intra). Another possible analysis is to view them as having tonic stems, thus M, N, P/Pt forms being subject to Intra (thus, BB’). Whichever analysis may be chosen, it remains true however that the accentual pattern of this type is a historical remnant, thus becoming non-productive. Many of them have now acquired a new variant stress pattern (AB’ or AB), which has become the new norm; e.g., pereměř pereměřlo pereměřli, próžil próžilá próžilo próžili, profil profilá profílo profilí, dobýl dobýlá dobýlo dobýli, péredal péredalá péredalo péredali, etc.

As is well known, there is one more location where another
'synchronous' stress innovation is taking place in the Russian conjugation. While the accentual innovation mentioned in the preceding paragraph takes place in the past paradigm for the non-vocalic stem, this one involves the present paradigm for the vocalic i-stem. Many i-stem verbs that previously had columnar desinence-stress in the present now allow the alternative pattern, i.e., stem-stress except for the 1Sg where stress falls on the desinence (i.e., AB ~ AA'); e.g., beljú belit, gorožú gorédit, dojú děít, družú drúžit, kačú kátit, darjú darit, etc. I will discuss what consequence this innovation would bear on the Russian grammar later in the concluding section.

Verbs with AA have underlying tonic stems with no special accentual markings; thus, {d'elaj-}, {citá-}, {boi'éj-}, {stán-}, {dúj-}, {möknu-}, {r'áza-}, {rádo-}, {r'isova-}, {v'id'e-}, {otv'ýt'i-}, etc. Verbs with BB have underlying atonic stems with no special markings: thus, {m'ot'-}, {bli'ud'-}, {gr'ob'-}, {p'ok'-}, {b'er'og'-}, {pas'-}, {polz'-}, etc. Verbs with AB have tonic stems which are specially marked [INTER], which triggers the application of the rule Inter in the formation of present tense forms; thus, {dava-[INTER]}, {p6j-[INTER]}, {b'j'[INTER]}, {zm'-[INTER]}, {pad-[INTER]}, {zova-[INTER]}, {prost'i-[INTER]}, etc. Just as the rule applies to plural forms of the substantival lexeme specified as [INTER], so does it apply to present tense forms of the verbal lexeme marked [INTER]. It should be recollected that the underlying stress of all lexemes is determined on the basis of the surface stress of the NSg form in the substantive and of that of the infinitive form in the verb, which is identical as a rule with that of the past tense form. To show the production process,
Verbs with AA' have tonic stems marked [INTRA-1Sg/Pr]. Due to this lexical marking, the 1Sg/Pr form undergoes Intra, whose effect, as mentioned in section 2, is to shift from stem-stress to desinence-stress or from desinence-stress to stem-initial stress. Thus, for example, {vzg'lanu-}[INTRA-1Sg/Pr], {tonu-}[INTRA-1Sg/Pr], {kol'o-}[INTRA-1Sg/Pr], {p'is'a-}[INTRA-1Sg/Pr], {smotr'ë-}[INTRA-1Sg/Pr], {pros'i-} [INTRA-1Sg/Pr], etc. Since the truncation rule is effective in the Russian grammar (V+V -> #+V), the stress on the stem-final syllable automatically shifts to the immediately preceding syllable via Phonemic mobility.

There are some -njat' verbs with stress alternation both in the present and in the past paradigms; all of them (cf. but prinjat') have a prefix ending in a consonant; e.g., obnimu obnimet obniala obnialo; also, obnît', vnjat', raznjat', snjat', prinjat', voprinjat', predorinjat'. The stress pattern of these verbs can be designated B'A', which however must be considered a marginal and non-productive pattern; some of them have alternatively A'A', where A' in the past paradigm is clearly a productive accentual paradigm (cf. obnial ~ obniál, obnjalá, obnialo ~ obnialo, obnjali ~ obnjáli). To illustrate the accentual derivation of those forms with B'A' ~ A'A',

/žová/ /žujá/ /govor'ïl/ /govor'ú/
The stem-stress in the present forms is the result of the application of Inter, which, along with the assumption that this class of verbs has the underlying stem \( \text{obn'a-'} \), explains why the present forms place the stress not on the stem-initial syllable \( (*\text{obnimet}) \), but rather on the stem-final (i.e., predesinential) syllable \( \text{obnimet} \). Further, the prefixal stress in the past forms can be naturally explained in our framework; M, N, and Pl forms are subject to Intra, which occasions the stress shift from the desinence to the stem-initial (more specifically, prefix-initial) syllable.

One final note on these verbs. In their lexical entry, they will be marked as having both [INTER] and [INTRA-1Sg/Pr, -MNPl/Pl], which appears highly idiosyncratic. The advent of the stress variant \( A'A' \) is in this regard no wonder: the Russian lexicon tends to eliminate such highly marked items from its inventory. Compare the above markings with [INTRA-1Sg/Pr, -F/Pl] which stems with \( A'A' \) have.

Finally, those verbs with \( A'B \). They have stem-stress in the past forms, except for the F, and columnar desinence-stress in the present forms, being specified [INTER] and [INTRA-F/Pl]; thus, \( \{\text{gn'ij-}\}[\text{INTER}] [\text{INTRA-F/Pl}], \{\text{p'j-}\}[\text{INTER}[\text{INTRA-F/Pl}], \{\text{živ-}\}[\text{INTER}[\text{INTRA-F/Pl}], \{\text{izac-}\}[\text{INTER}[\text{INTRA-F/Pl}], \{\text{kl'an-}\}[\text{INTER}[\text{INTRA-F/Pl}], \{\text{ždá-}\}[\text{INTER}] [\text{INTRA-F/Pl}], etc. To illustrate how grammar and lexicon interact,
4. Conclusion. In this paper, I tried to show that the Russian inflectional accentuation, both substantival and verbal, can be described by postulating two accentual rules in the Russian grammar: Inter-paradigm mobility and Intra-paradigm mobility, both of which are morphophonemic rules. The former deals with stress alternation between two subparadigms; the alternation between Sg and PI in the substantive and the alternation between Pr and Pt in the verb. The latter handles stress alternation within a subparadigm; that is, the alternation between the Acc. and the other cases in the singular paradigm, the alternation between the Nom. (or the Gen.) and the other cases in the plural paradigm, the alternation between 1Sg and the other forms in the present paradigm, and finally the alternation between the Fem. and the other forms in the past paradigm. Since individual lexemes manifests different accentual properties, it is necessary to specify accentual information in their lexical entry. Thus, lexemes with the marking [INTER] will be subject to Inter, and those with [INTRA-X] will be subject to Intra in the X-form. The grammar espoused here needs to state the following rule-ordering relationship: Inter applies prior to Intra. Besides these two rule, we have a phonemic accentual rule, whose effect is to shift stress on a zero segment or on a deletable segment onto the immediately preceding syllable. This handles the following type of stress shifts: \{stol-0\} stól vs. stolá stolú, \{I'ubov'-óju\} I'ubóv'ju I'ubóv' vs. I'ubví, \{smot'ë-it\} smótrit vs. smotréI smotréla, etc. Further, for those lexemes with stress alternation and mobile vowel, it
is necessary to give a statement to the effect that Epenthesis follows the two morphophonemic rules but precedes Phonemic Mobility; thus, (s’ost’r-*)[INTER][INTRA-GPl][MOBILE V] -> (Inter) s’ost’r-0 -> (Intra) s’ost’r-0 -> (Epenthesis) s’ost’or-0 -> (Phonemic Mobility) /s’ost’or/. The reason for the rule-ordering between the two MP rules and Epenthesis is evident; we have to capture the fact that when a lexeme shows the alternation between desinence-stress in the Sg and stem-stress in the PI, the stress falls not on the mobile vowel, but on the stem-vowel; pis’mó pis’ma vs. pis’ma pisem (*pisém). If Epenthesis applied prior to Inter, a spurious form would obtain: {p’is’m-0}[INTER][MOBILE V] -> (Epenthesis) p’is’em-0 -> (Inter) p’is’ém-0 */p’is’ém/ vs. -> (Inter) p’is’m-0 -> (Epenthesis) p’is’em-/p’is’em/.

The discussion on synchronic stress variations indicates that the substantive tends to eliminate the intra-paradigm alternations (i.e., case-marking alternations), while the verb tends to introduce it (i.e., person- or gender-marking alternations). For example, izbá izbu - new izbó, krý’ca krý’cam - new krý’cam (i.e., B’A, BA’ > BA) vs. drúžó drúžit - new drúžit, dárú darit - new dárít, etc. (i.e., AB > A’A). The elimination of the intra-paradigm alternation from the substantive is closely tied with the well-known observation that the patterns with the inter-paradigm alternation become productive in the substantive (cf. Krysin 1974: 224-29). On the other hand, its introduction in the verb seems related to the fact that the patterns with the inter-paradigm alternation are found in a limited number of lexemes; in fact, there is only one verbal stem that has BA (leč’: léč legló legló líágu líážes’; see above accentual classification of verbs). The telos of accentual innovations taking place in modern Russian then can be said to maximize the difference between these two major parts of speech. The inter-paradigm alternation in the substantive contributes to distinguish between two numbers, the choice of which is determined referentially; i.e., the Sg form is chosen if the expressed noun refers to one object,
and the Pl form, if it refers to more-than-one objects. The intra-paradigm alternation between declined case forms, the choice of which clearly is determined syntactico-semantically, is now being eliminated. In short, in the substantival accentology, the referentially determined stress alternation becomes productive, while the syntactically determined stress alternation is losing ground. The exactly opposite picture obtains in the verb. The intra-paradigm alternation in the verb contributes to distinguish between the 1Sg and other person/number forms, one the one hand, and between the Fem. and other gender/number forms, on the other. These two grammatical categories manifested in the conjugated forms are the result of the syntactic agreement: ie., the choice between them is determined syntactically. They are not something to express properties of situation referred to by the verb. Contrastingly, the inter-paradigm alternation between tense categories, the choice of which is clearly referentially determined, is non-productive. In short, in the verb, the referentially determined stress alternation is non-productive, while the syntactically determined stress is gaining ground. This discussion then leads us to conclude that the synchronic stress variations (i.e., diachronic stress innovation) in modern Russian must be explained with reference to the two morphophonemic accentual rules and different utilization of them between the two major parts of speech.

REFERENCES

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러시아어의 굴절 강세에 관한 연구

최 성 호

본 논문은 현대 러시아어의 굴절 강세론을 단위-과정(item-process) 모델에 의거 기술함과 동시에 강세의 공시적 기술에 있어서 ‘통시적인 강세 변화(acentual variation)’는 그 기술의 타당성을 입증하는 한 요소로 적용될 수 있음을 제시한다. 본 논문은 두 개의 형태-유용론적 강세규칙-'파라다임 내 변동(Intra-paradigm mobility)’과 ‘파라다임 상호간의 변동(Inter-paradigm mobility)’을 선정하고, 현대 러시아어에서 보이는 모든 강세의 변동 유형은 이 두 규칙으로 기술될 수 있음을 보인다. 어떤 한 어휘가 위의 두 강세규칙에 적용되는지의 여부는 그 어휘에 특유한 강세자식에 의해 결정된다. 이를테면, 어떤 어휘가 강세어간을 가지면서 또한 [INTER]라는 강세자식을 가지면, 이 어휘는 복수형에서의 ‘파라다임 상호간의 변동’이라는 강세규칙의 적용은 받아 비-강세어간이 되면서 강세는 어휘의 최 이상에 벗어진다. (예: {góród-} [INTER] => (Inter-paradigm mobility) 복수어간 (góród- gorodá gorodóv 등.) 한편, 본 논문에서 논의된 현대 러시아어에 보이는 강세 변이의 일반적인 추세는 다음과 같이 요약될 수 있다: ‘파라다임 내 변동’은 명사의 경우 비생산적(non-productive)인 반면, 동사에 있어서는 생산적(productive)인 것임을 보인다. 본 논문은 현대 러시아어에서 강세의 개선(innovation)은 두 품사간의 차이를 극대화하는 방향으로 나아가고 있다고 결론을 내린다.