

THE PROTOSLAVIC PROSODIC BACKGROUND OF THE SLOVAK RHYTHMIC LAW

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I. Introductory.

The rhythmic law, a unique rule which applies to both the Slovak standard language and the Central Slovak dialects, has been of importance to scholars who have attempted to establish the properties which distinguish Slovak from the other Slavic languages and, more narrowly, Central Slovak from the Western and Eastern Slovak dialects. The rhythmic law specifies that two long vowels may not occur in two consecutive syllables of a single word; whenever two phonemically long elements are joined to each other, the second one automatically shortens (Krajčovič 1975:62-63). This is most easily observed in adjectives. The long nominative singular feminine ending -á can occur as such after a short root, e.g. nová, but if a long root vowel occurs in the syllable which immediately precedes the -á, then the ending itself shortens to -a (e.g. krásna). Diphthongs behave as do long vowels for the purposes of the rhythmic law; they shorten from two components to their second component only in those cases where long monophthongs shorten. This simply implies that the law came into effect before the rise of the specifically Slovak diphthongs, so that the diphthongs only arose in those positions where long vowels once stood. See table 1 for illustrations of the rhythmic law.

nov + á = nová, but krásn + á --> krásna

When first syllable is a diphthong: **biel + á --> biela**

When second syllable is a diphthong:

ulic + iach = uliciach, but prác + iach --> prácach

Table 1. An illustration of the rhythmic law in Slovak.

The rhythmic law is often a subject of intense interest in studies of the synchronic system of the Slovak literary language, since it is no longer an absolute and exceptionless law, and the exceptions to it are of great significance to the grammar of standard Slovak (Peciar 1946). The exceptions are most likely a result of the fact that the law comes from the Central Slovak dialects and that lexical contributions from the other dialect zones were likely to introduce violations of the rhythmic law. The purpose of our paper, however, is to examine the historical background which led to the introduction of a rhythmic law only in the Central Slovak dialect zone, to the exclusion not only of the other Slovak dialects and of the rest of West Slavic, but to the exclusion of the other Slavic languages. Perhaps the most similar phenomenon in any other Slavic language is the Slovene rule which limits the occurrence of long vowels to one per word (Stankiewicz 1979:128), as compared to the rhythmic law which limits the occurrence of long vowels to one per two-syllable sequence.

This paper shall attempt to demonstrate that the rise of the rhythmic law was due to the precise nature of the prosodic system at the moment that vowel contraction occurred, since vowel contraction first introduced the frequent instances of two long syllables in succession, which were accepted by all of the West Slavic dialects except for Central Slovak. Let us assume that at the moment of contraction, vowel length and stress together shared a combined phonemic role of the distinctive ictus, or word-stress, somewhat similar to present-day Slovene. If both quantity and stress were limited to only one occurrence per word in a culminative function, the rhythmic law would be a most natural consequence, in order to prevent the emergence of a second potential ictus syllable, i.e. a second long syllable. On the other hand, if stress had already begun to independently perform the function of culminative word ictus at the moment of contraction, there would be no reason for the elimination of additional long vowels.

II. The Neo-Acute and Subsequent Changes.

The development of the so-called neo-acute stress was the first of a series of prosodic changes which led to the differences in the accentual systems of the all the modern Slavic languages (Jakobson 1963:163). Since the primary effect of the neo-acute was to specify that jer-vowels could no longer bear the phonological word-stress in such positions as word-final (Jakobson 1963:162), in a sense the neo-acute is tantamount to the rise of the category of jers per se, since final jers are defined as weak

and such weak jers, by definition, cannot bear the word-stress. When the jer vowels came into existence and, in final position, could no longer bear the word-stress, the preceding vowel is said to have undergone a change in pitch to neo-acute. This could be explained much more simply by stating that a simple stress retraction has taken place in an environment which is particularly prone to undergo retraction. This retraction of stress from final jers was the Late Common Slavic development which eventually led to fundamental changes in the separate dialects of the Slavic languages. In order to see how this process led to the differentiation of Central Slovak from the other dialects of Slovak, let us review the changes which occurred in these two zones.

First let us turn our attention to the historical situation which applies to all Slovak dialects in the earliest period of the neo-acute changes. The primary effect of the stress retraction in such words as ščítě was to stress the root syllable, which created the possibility of a merger with the old acute paradigm, in which the long root syllable had been historically stressed with rising pitch: e.g. dýmь. All of the Slovak dialects reacted to this threatened merger by shortening all of the originally stressed root vowels, whether rising or falling in pitch (producing cases such as dýmь from originally long rising pitch, and synь from originally long falling pitch). As I have noted in a previous paper (Feldstein 1975:72), the fact that Slovak merged both rising and falling first syllable stress as short quantity, in contrast to first syllable neo-acute, or retracted stress, which retained its long vowel, is a clear indication that phonemic pitch was no longer part of the Slovak system by the time of the neo-acute retraction. Stress placement, rather than pitch, provides the direct key to the reinterpretation of both stressed and pretonic long vowels of Slovak; see table 2, which shows that Slovak must have lost its pitch distinction before changing its vowel quantity, since its long vowel behavior is based on stress position at the moment directly prior to the neo-acute, rather than vowel pitch (acute vs. circumflex). In Czech, by contrast, pitch must still have existed at the moment of the neo-acute retraction, since both originally rising types (old acute and neo-acute) keep their length (štít and dým), but long falling pitch shortens (syn).

A. First-syllable (or root) stress was shortened, whether originally rising or falling in pitch: dýmъ > dŷmъ (originally rising); sýnъ > sŷnъ (originally falling).

B. Newly retracted stress, originally pretonic, was *not* shortened:
ščítě > ščítъ

Table 2. Slovak quantity changes after the neo-acute retraction were based upon place of stress, rather than pitch.

If stress placement was the basis of the Slovak reinterpretation of Common Slavic quantity, as we are positing, it must be recognized that free accent existed in Slovak at the moment of the neo-acute retraction.

The simultaneous presence of both distinctive stress and distinctive vowel quantity, the situation we assume to have existed in Slovak at the moment of the neo-acute retraction, was a very unstable one, which was soon subject to change. As Jakobson clearly pointed out in his 1925 review of Trávníček's book on Czech accent (Jakobson 1971:624), "if, within the phonemic system of a given language, there emerges as a result of phonetic changes the coexistence of two independent elements--dynamic word accent (stress) and quantity--one of these elements will be eliminated from the phonemic system." Jakobson further explained the reasons for this state of affairs by indicating that the quantitative opposition implies the difference between one and two mora sequences of vowels and free stress implies the possibility of stress on any mora. Yet, if a given long vowel or two-mora sequence can receive stress on either mora, this yields a system of tonal distinctions, rather than pure stress and pure quantity. Therefore, in order for pure stress and pure quantity to survive without the introduction of tonal distinctions, it would be necessary to have long vowels which could be stressed only on one portion of the two-mora sequence. This makes the combination of free stress and free quantity such a rarity.

Slovak was, therefore, on the threshold of important prosodic changes and it could have gone either in the direction of phonemic stress or of phonemic quantity. As is well-known, all of the West Slavic languages found themselves in a somewhat similar situation and all opted for the quantitative solution, rather than the choice of free stress. As a general rule, West Slavic presents the picture of present-day (or only recently eliminated) vowel quantity, but fixed stress. The fixed stress is either initial, as in most Czech and Slovak dialects, or penultimate, as in most Polish dialects. The common thread in both types of fixed stress is the elimination of word-final stress. Therefore, I conclude that part of the common West Slavic reaction to the neo-acute was the retraction of word-final stress not just from jers, as specified by the Common Slavic neo-acute rule, but from any final vowel. This was simply a continuation of the retraction which had started from word-final jer vowels. This retraction must have followed the same hierarchical sequence that has been observed for the South Slavic languages, particularly Serbo-

Croatian and Slovene. Ivič (1958:105-106) has shown that retraction operates according to a strict hierarchy, according to which the first and most probable retractions occur when the final syllable is short and the pretonic syllable is long. Based on what we know about the history of the neo-acute, I would add that the most likely retractions occur from final short and/or diffuse vowels to pretonic long and/or non-diffuse. This accounts for the fact that the retraction from final jers, which are defined as short diffuse vowels, was the most general and universal type in the entire Slavic world. The very process of retraction fit in well with the prosodic needs of the West Slavic zone, since it functions to eliminate stress oppositions which occur between final and pre-final syllables, which often turn out to be the only word syllables, thus reducing or curtailing the phonemic role of stress placement.

Languages which opt to retain phonemic quantity and eliminate free stress can take one of at least two directions in the elimination of the free stress. We see that most West Slavic languages eventually took the path of fixing the stress to a particular word syllable, either initial or penult. Slovene, on the other hand, binds stress to any long syllable which occurs and, therefore, limits the occurrence of long vowels to one per word. It is only in the absence of all long vowels that Slovene fixes stress on a constant word syllable. In all likelihood, the earliest West Slavic reaction to the conflict between stress and quantity resulted in a situation similar to that seen in Slovene. The stress retractions not only of such cases as final jer ščítě > ščítě but also the genitive singular ščítá > ščíta, concentrated both the stress and the quantity on the same vowel. At first, when the Jakobsonian term "conflict" was still applicable to the situation, the essence of the conflict was precisely the mutual phonemic redundancy: was ščíta now an instance of initial stress with concomitant length or distinctive length with concomitant stress? The very first step towards opting for distinctive quantity had to present the latter situation, in which distinctive quantity had the redundant property of a word-stress. This was easily accomplished, since the West Slavic languages inherited a system in which final syllables had shortened and there was generally a maximum of one long vowel per word. This situation remained as such until the next major prosodic event for West Slavic, the process of vowel contraction.

The primary significance of vowel contraction for the prosodic system was the introduction of numerous long vowels in inflectional endings, such

as the adjectival endings, which now could potentially combine with long stem vowels in the same word. Such a situation of two successive long vowels within a single word now removes the possibility of vowel quantity as a realization of culminative ictus as we now find it in Slovene. I would submit that the Slovak reaction to contraction depended on the precise nature of the redundancy relationship existing between vowel quantity and stress at the moment contraction occurred.

Let us observe the probable status of this relationship in Central Slovak, as contrasted to the other Slovak dialects, in the period leading up to the moment of vowel contraction. Central Slovak reacted to three major types of stress retractions by consistently generalizing long quantity in the originally pretonic syllable, which attracted the stress from the final stressed syllable. Two such cases are already familiar to us: the case of retraction from a final jер vowel to a preceding long vowel (such as ščítъ) and the case of retraction from a non-diffuse final short to a preceding long vowel (such as the genitive case of the form ščítъ--ščíta). These two instances had the same fate in all of West Slavic. However, there is a third type of retraction in which Central Slovak had a unique reflex in the whole of West Slavic, not to mention the whole of Slovak. It is the case of a final stressed jер vowel which is preceded by a *short* vowel, e.g. bobъ, kolъ, koňъ, košъ, nožъ, stolъ, volъ. In all of these cases, which correspond to Russian accentual paradigms with stressed inflectional endings, Slovak reflects a long vowel in the pre-jер position: bôb, kôl, kôň, kôš, nôž, stôl, vôl. Although West Slavic dialects outside Central Slovak have some long and some short reflexes for these words, it is only in Central Slovak that we see a consistent treatment based on the original stress position, since the length reflexes found elsewhere in West Slavic are the result of lengthening before particular groups of consonants, rather than as a specific reaction to a stress retraction from a jер to a short vowel. This unique property of Central Slovak can be interpreted to mean that at the moment of this retraction Central Slovak maintained an important difference between phonemically stressed words of the type bobъ and phonemically stressless words of the type dômъ, which came from the recessive accentual paradigm **с**. Phonemic stress was still bound to length, since, upon stress retraction, the phonemic stress automatically caused the vowel to lengthen, as in bobъ > bôbъ. Phonemic stress and length were still a

combined mark of word ictus and, as such, limited to a total of one per word, at least in non-derived words. Thus, the distinctive quantity and the culminative stress feature were probably concentrated on the same syllable, similar to the situation which we see in modern Slovene. Therefore, when contraction introduced a second long vowel in a word which already possessed one, the Central Slovak reaction was to eliminate the second long vowel in order to insure that only a single word-stress would occur and that a final syllable could in no case be interpreted as a second ictus syllable. This is our interpretation of the origin of the rhythmic law. Significantly, by the time of a fourth retraction, which caused the stress to retract from final non-*jer* vowels to preceding shorts (e.g. bobá > bóba), the rule which had linked phonemic stress to length was eliminated everywhere in West Slavic, even in Central Slovak. Therefore, we can suggest a relative chronology for these four retraction types, as seen in table 3.

A. First Retraction.

From final jer to preceding long: ščítě > ščítě.

New stress = length in all of West Slavic.

B. Second Retraction.

From final non-jer to preceding long: ščítá > ščítá.

New stress = length in all of West Slavic.

C. Third Retraction.

From final jer to preceding short: bobě > bobě > bobě.

New stress = length in Central Slovak. (bobě)

New stress = short in rest of West Slavic. (bobě)

(Later length, as in Polish bób, dates from after jer-fall.)

D. Fourth Retraction.

From final non-jer to preceding short: b**o**bá > b**o**ba (stressed short).

New stress = short in all of West Slavic.

Table 3. Four types of West Slavic stress retractions, with quantitative consequences for Central Slovak as compared to other zones.

As a further check on our scheme, we can again refer to Slovene and Serbo-Croatian, where retraction from a final non-jer vowel to a preceding short is relatively late in the hierarchy of retractions and often fails to cause concomitant lengthening in Slovene dialects, corresponding to the West Slavic fact that this was the first retraction in which Central Slovak did not automatically bind retracted stress to vowel length.

In the other dialects of Slovak (and West Slavic), we can assume that by the time of the retraction from final stressed jers to preceding short vowels of the type bobъ, the system no longer maintained the automatic redundant combination of phonemic stress and vowel quantity. Rather, the phonemically stressless circumflex words of accentual paradigm **c** began to serve as a model for assigning stress without any dependence upon vowel quantity, since the circumflex words, with their root-vowel falling pitch, had been among the very first to shorten their root syllables and now represented a word class devoid of long vowels. Since this accentual class, further, had the general property of an automatic, recessive stress on the initial syllable, it was only natural for this property to emerge as the new type of culminative stress feature, which provided an independence for the occurrence of vowel quantity, yet continued to provide each word-unit with a stress for the demarcative and culminative purposes of setting off word units in the stream of speech. In contrast to Central Slovak, these dialects must have had a general rule for assigning ictus which was independent of the location of long vowels. This rule must have been of the type:

V --> + stressed/#___...

Since these non-Central dialects now possessed this stress assignment rule, the introduction of new long vowels in adjectival desinences and elsewhere was no impediment. In other words, at the moment of contraction their length was distinctive, but not culminative. Central Slovak, on the other hand, must have possessed a culminative type of vowel quantity bound to word ictus at the moment of vowel contraction, which forced it to resist the introduction of a second ictus vowel within the next syllable.

III. Conclusion.

Since we have no direct evidence for the behavior of Slovak dialects at the moment of vowel contraction, all suggestions about the history of this process have remained in the realm of hypotheses, such as ours. In order to clarify our specific points presented in this paper, it would be

useful to compare our conclusions to those found in some of the well-known treatments of the subject.

Pauliny's Fonologický vývin slovenčiny point out that Slavic inherited the Late Common Slavic pattern, in which unstressed long vowels directly preceded stressed vowels. Contraction was a process which could thoroughly change this pattern, but in order for contraction to do this, it had to reach the given dialect before jer-fall occurred. Therefore, Pauliny concludes that contraction preceded jer-fall everywhere in West Slavic except for Central Slovak, in which contraction occurred only after jer-fall and could not exert such a strong influence on the original pattern of long vowels being followed by shorts.

Thus, for Pauliny the issue of the rhythmic law is explained primarily by a difference of assumed relative chronology, where jer-fall before contraction (as in most of West Slavic) excludes the possibility of the rhythmic law, but jer-fall after contraction (as only found in Central Slovak) leads to the presence of the rhythmic law. As observed by Marvan (1979:141), Pauliny's emphasis on the significance of jer-fall chronology was due to his belief that "after the fall of the jers, differences of intonation were revalued into differences of quantity." However, Jakobson has shown that the rise of the neo-acute and subsequent intonational reevaluation was first ushered in by the loss of stress on final jers, and only later did full jer-loss occur (1963:166). Therefore, it is likely that contraction occurred at some point between the neo-acute retraction and the ultimate loss of jers. Since the neo-acute itself, in this paper's interpretation, was simply the one variety of stress retraction which stood highest in the retraction hierarchy and, as such, was the most universal in Slavic, it can be assumed that the neo-acute retraction initiated a period in which certain dialect zones (primarily those of West and Southwest Slavic, which preserved phonemic quantity) would extend retraction to additional environments which stood lower on the retraction hierarchy.

In contrast to Pauliny's view that a differential relative chronology of jer-loss and contraction explains the unique position of Central Slovak, other studies have viewed this relative chronology as unified in all of West Slavic. Marvan (1979:147) states that contraction invariably "preceded the fall of the jers," while Bernštejn (1968:27) takes the diametrically opposite position that contraction could only occur have occurred after jers were lost. Our interpretation leans towards the view

that contraction had to follow the neo-acute stress retraction, but it is non-committal about the controversial question of jer-loss.

We have proposed that the rhythmic law is best treated as a specific Central Slovak response to vowel contraction, against the background of the not yet fully emancipated distinctive feature of vowel quantity as a mark of ictus. In doing so, we have suggested that there were four types of stress retraction in West Slavic, very much parallel to the Slovene and Serbo-Croatian retractions in their hierarchical order of occurrence. One of these retraction types (shown in table 3) sharply differentiates Central Slovak from the rest of West Slavic, and thus helps to explain the origin of the rhythmic law.

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