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TRACES OF DIALECTAL BACKGROUND IN SPOKEN LITERARY SERBIAN

1. Introduction.

This very modest paper illustrates the methodology I have been using in phonetic research over the past years, exploring, among other things, the prosodic structure of various languages and the manifestation of that structure in orally produced poetry, including Serbian (Lehiste 1991, 1992, 1994). An earlier version of the paper was presented at the 4. Dani srpskoga duhovnog preobraženja in Manasija, Despotovac, August 22, 1996.

In studying a phonetic aspect of a language, one usually tries to analyze productions by more than one speaker, in order to be able to separate that which is characteristic of the individual speaker from what is characteristic of the language. It is also necessary to control as many variables as possible, so the studied features are comparable from speaker to speaker.

The materials analyzed for the present paper deal with the phonetic realization of rhythm in Serbian, — more specifically, rhythm in orally produced poetry. In this particular case, the object of study is a poem in the trochaeic metre. The term "trochaeic" implies that lines consist of disyllabic metric feet, of which the first is long, the second is short, and verse ictus falls on the first syllable.

One definition of rhythm might be repetition of some prominent feature at regular intervals. In the trochaeic metre, this would be onset of the stressed first syllable of the trochaeic metric foot. As in the case of any regular metre, one may expect that the metric feet have approximately the same duration. One may expect further that if several speakers of the same form of a language produce the poem, their productions will be similar. In the case of systematic differences between speakers, it is necessary to recognize which of those differences constitute individual characteristics of a

speaker, and which indicate that the speakers use different forms of the language.

2. Materials and methodology.

The present study compares oral readings of Jovan Jovanović Zmaj's poem "Što je java tako kivna" by four speakers. The recordings were made as part of a larger project on Sept. 11, 1990, in Belgrade. The poem consists of four stanzas, each of which comprises four lines, consisting in turn of four trochaeic metric feet. As there were four speakers, the total number of metric feet analyzed for the current study equals $4 \times 4 \times 4 \times 4 = 256$. The acoustic analysis was carried out (by the author) in the linguistics laboratory of The Ohio State University, using the Kay Elemetrics CSL (Computerized Speech Laboratory).

Measurements were made of the duration of lines, pauses between the lines, all the metric feet, and the duration of the stressed syllable nucleus in the first syllable of the metric foot. The results are presented in the form of three tables.

3. Results.

Table 1 presents the average durations, in milliseconds, of the lines and pauses between the lines, arranged according to position within the stanza and according to speaker. The overall averages show that the speakers provided the stanzas with an internal structure: the pauses after the second line were longer than the pauses after the first and third line, and the last line of the stanza was followed by the longest pause.

Table 2 offers a calculation of the average durations of lines and metric feet for the four speakers, averaged over all positions within the stanza. The average duration of the metric feet was achieved by dividing the average duration of the line by the number of metric feet in the line.

It is evident that the speakers differed considerably in tempo: Speaker 3 was the slowest, Speaker 1 used the fastest tempo. This has to be taken into consideration when comparing the realization of the short-long opposition in the stressed syllable nuclei (the vowels that fall into ictus position).

Position within the stanza likewise affected the duration of the line for individual speakers, but this cannot be generalized, since there is no position in which all speakers would have either the shortest or the longest lines. (The longest lines are line 3 for Speaker 1, line 1 for Speaker 2, and line 4 for Speakers 3 and 4; the shortest lines are line 4 for Speaker 1, line

3 for Speakers 2 and 3, and line 1 for Speaker 4.) As already mentioned, the only systematic feature regarding the durations of lines and pauses is the duration of the pauses after the second and fourth line, and even here there is an exception: Speaker 1 used a longer pause, on the average, after third lines than after second lines. All speakers, however, used the longest pause after the fourth line, marking the end of the stanza.

The duration of the metric feet is a function of the duration of the line, and there will be variations in the average duration of metric feet in a particular line, depending on the position of the line within the stanza. The magnitude of the variation is in turn dependent on the speaker, since the speakers differ with regard to the way in which the duration of the line is related to the position of the line within the stanza.

None of these durational differences appears to be linguistically significant; they have to be considered, however, in order to evaluate the possible differences at the level where duration does play a linguistically significant part. This is at the level of the metric feet. I am taking it for granted here that the domain of the contrast between short and long accents in Serbian is the disyllabic sequence, which in the case of trochaeic metre is the trochaeic metric foot.

The average durations of metric feet in Table 2 represent averages over both short and long accents, and thus can be used to characterize speakers, but not to decide whether the speaker had used a long or short accent. A separate calculation of the durations of potentially contrastive syllable nuclei is presented in Table 3.

This table contains measurements made from 50 metric feet in which the first syllable was open. (The poem contained 64 metric feet, of which 14 contained an intervocalic cluster.) Of these 50 metric feet, 42 contained short syllables bearing metrical stress, and 8 contained long accented syllables in ictus position. (The prosodic structure of the poem thus is not strictly trochaeic, if the term is to be understood to refer to metric feet containing a long first syllable.) The range of durations is given in the first column. For each speaker, the column labeled Short indicates how many of the stressed short syllable nuclei fell into each indicated range, and the column labeled Long shows the same for long stressed syllable nuclei. The table offers also overall averages, standard deviations, and ranges for the short and long syllable nuclei for the four speakers.

In order to establish which of the syllable nuclei should be classified as short and which as long, I consulted the Serbocroatian-English dictionary by Morton Benson and Biljana Šljivić-Šimšić (1971) (One reason why I felt I could rely on this dictionary is the fact that its cover carries an endorsement by Pavle Ivić.)

A study of Table 3 reveals considerable differences between the speakers with respect to the short-long opposition. Speakers 1 and 2 have hardly any overlap between the short and long categories. The long/short ratio for Speaker 1 is 1.78, for Speaker 2 — 1.73. The standard deviations are likewise small, averaging 22.85 for these two speakers. On the other hand, for Speakers 3 and 4 the ranges of short and long categories overlap completely. The long-short ratio for Speaker 3 is 1.22, for Speaker 4 — 1.21. The standard deviations average 33.55 for these two speakers. Note that the standard deviations are larger than the differences between the average durations of the expected Short and Long categories, which suggests that the differences are not statistically significant (unfortunately the material is not extensive enough to calculate statistical significance).

The reading of this short poem has clearly divided the four speakers into two distinct groups — Speakers 1 and 2 maintaining an opposition between short and long accents, and Speakers 3 and 4 lacking this opposition. All four speakers were presumed to be speakers of standard literary Serbian. The biographical data indicate that Speakers 1 and 2 were born in Bosnia, where they also went to elementary and secondary school; speakers 3 and 4 were born in Serbia, where they also attended elementary and secondary school. The results of the analysis show clearly that speakers 1 and 2 were closer to the standard as codified in the consulted dictionary than speakers 3 and 4, who might be expected to be long-term users of the Serbian norm of the language.

The surprising outcome of the study might serve as a warning: even a supposedly homogeneous group of speakers may nevertheless display traces of dialectal background.

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Table 1. Average durations of lines and pauses following the lines according to position within the stanza

Speaker	1.		2.		3.		4.	
	Line	Pause	Line	Pause	Line	Pause	Line	Pause
Sp. 1	1833	335	1706	386	1866	451	1697	818
Sp. 2	1974	347	1818	711	1800	288	1909	1492
Sp. 3	2092	135	2105	366	2003	132	2198	514
Sp. 4	1824	474	2001	569	1858	405	2045	857
Average	1931	323	1908	508	1882	319	1962	857

Table 2. Average durations of lines and metric feet

Speaker	Line	Metric foot
Sp. 1	1775	444
Sp. 2	1875	469
Sp. 3	2100	525
Sp. 4	1932	483
Average	1921	480

Table 3. Number of occurrences of metric feet with stressed first syllable durations in indicated ranges, presented according to speaker and specified length (S = short, L = long)

Range	Sp. 1		Sp. 2		Sp. 3		Sp. 4	
	S	L	S	L	S_	L	S	L
20-40	1_				1			
41-60	11		1				1	
61-80	12		7		3		3	!
81-100	11		19		7	1	8	
101-120	10	11	13	L	9		6	
121-140	7		2	11	10	1	6	2
141-160		2		2	8	33	11	4
161-180		2		3	4	2	4	1
181-200		2	·	2	Ĺ	İ	1	
201-220		11			1	11	1	i
221-240								i

241–260								1
261-280							<u> </u>	
281-300							1	
Average duration	96	171	93	161	125	153	131	158
s.d.	25	28	17	22	32	23	43	36
Range						l		
Short:	21-140		47-124		69-220		59-293	
Long:	120-213		121-188		91-205		131-243	

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