

LENGTH OF VOWELS IN SOTAK DIALECTS

JOZEF LIŠKA

The Sotak dialects are a small group of Eastern Slovak dialects in the North East corner of Czechoslovakia. While the rest of Eastern Slovak dialects have been more or less stabilized for some centuries now, so that they have no long vowels, and the stress is on the penultimate syllable, the Sotak group, even during the last seventy years has been undergoing important phonetic and phonological changes.

As this development is still going on we have only considered the speech of the oldest people. According to our findings, the length of the vowels is still relevant (phonemic) with the oldest speakers in the Sotak dialects.

Some authors, however, are not of the same opinion.

Samuel Czambel, for instance, the author of the monograph on the Eastern Slovak dialects published in 1906¹ and Zdzisław Stieber,² the Polish linguist (in the thirties before the Second World War) do not mention the long vowels in the Sotak dialects at all.

Phonetically, the absolute lengths of the Sotak vowels are variable, depending on their position in words, on the adjacent sounds, on the presence of stress and on pitch.

Our sonographs also show that both long and short vowels may be lengthened before a pause or at the end of a sentence due to the influence of intonation.

As even at present, some of the authors³ think the length of the Sotak vowels is the result of stress only, our primary task then, is to study the connection between the vowel length and stress, and how they influence each other.

Three facts have emerged from our investigation: First—The long vowels always have the main stress. Second—The short vowels can also occur under stress. Third—The lengthening of both long and short vowels when stressed is generally known, but the increase in duration is not noticeable and is not a significant feature.

In our opinion, the length of the Sotak vowels should be observed when they are in the same or similar positions, under the same stress, and with the same pitch. Our

¹ Czambel, S.: *Slovenská reč a jej miesto v rodine slovanských jazykov* (Turč. Sv. Martin 1906).

² Stieber, Z.: *Przyczynek do dialektologii Zemplina, Sborník Matice slovenskej XIII, 1935, 60—63.*

³ *Atlas slovenských nářečí* which is in print now has no long vowels in the Sotak area.

investigations show, that, in such conditions, the duration seems to be the principal and significant feature of contrast between long and short vowels, and is capable of distinguishing the meaning of words.

There are four pairs of long and short vowels in the Sotak vowel system at present. Let me introduce them in words and listen to them in sentences as recorded on magnetic tape (they are repeated twice each).

The first pair is [a]—[a:]: *para* “steam”—*pa:ra* “a pair”, *spa:l'i* “they slept”—*spa:l'i* “he will burn”.

The second pair is [æ]—[æ:] which occur mostly after palatal consonants: *p'æta* “a heel”—*p'æ:ta* “the fifth”, *p'æna* “a foam”—*p'æ:na* “tipsy”.













The third pair is [o]—[o:]: *pot* “sweat”, “under”—*po:t* “a loft”.

The fourth pair is [e]—[e:]: *ščep'u* “I graft”—*ščē:p'u* “I split”.

As to former long vowels [i:] and [u:] they do not differ in length from the corresponding short vowels any more.

According to our measurements on the Sona-Graph and oscillograph, the length of the individual vowel pairs is as shown on the Table I and Table II.

Table I (Subject A is M. B., Dlhé n/Cirochou).













Subject A	Duration (Time)	Ratio
<i>a para</i>	 0,20 sec	1 : 1,50
<i>a: pa:ra</i>	 0,30 sec	
<i>a spa:l'i</i>	 0,16 sec	1 : 1,63
<i>a: spa:l'i</i>	 0,26 sec	
<i>æ p'æta</i>	 0,15 sec	1 : 1,46
<i>æ: p'æ:ta</i>	 0,22 sec	
<i>æ p'æna</i>	 0,16 sec	1 : 1,56
<i>æ: p'æ:na</i>	 0,25 sec	
<i>o pot</i>	 0,17 sec	1 : 1,53
<i>o: po:t</i>	 0,26 sec	
<i>e ščep'u</i>	 0,13 sec	1 : 1,39
<i>e: ščē:p'u</i>	 0,18 sec	

The length is kept best with the open vowels [a:] and [æ:] respectively. The average ratio between the short [a] and the long [a:] is 1 : 1,56. This proportion is smaller with the pair [o]—[o:] and still smaller with the pair [e]—[e:].

The average ratio between short and long vowels of the other Slovak dialects, as well as of Standard Slovak and Czech is 1 : 2 although differences occur even there.

As stated previously, the duration is the most significant feature of long Sotak vowels. But it is not the only significant characteristic. Sonagrams show that diffe-

Table II (Subject B is M. P., Papín).

Subject B	Duration (Time)	Ratio
<i>a para</i>	 0,14 sec	1 : 1,78
<i>a: pa:ra</i>	 0,25 sec	
<i>a spa:l'i</i>	 0,13 sec	1 : 1,46
<i>a: spa:l'i</i>	 0,19 sec	
<i>æ p'æta</i>	 0,15 sec	1 : 1,60
<i>æ: p'æ:ta</i>	 0,24 sec	
<i>æ p'æna</i>	 0,16 sec	1 : 1,69
<i>æ: p'æ:na</i>	 0,27 sec	
<i>o pot</i>	 0,23 sec	1 : 1,35
<i>o: po:t</i>	 0,27 sec	
<i>e ščep'u</i>	 0,11 sec	1 : 1,55
<i>e: ščē:p'u</i>	 0,17 sec	

rence between the long and short vowels is also due to the quality of sounds, due to their acoustic patterns.

X-ray pictures confirm that this is the result of the slightly different positions of articulators, especially the tongue.

This acoustic difference is smallest between the low mid vowels [a] and [a:], as shown in the sonagrams (Fig. 1 and 2). The long [a:] is more open and the second resonance bar is slightly nearer to the base line (1,7 KH) while with [a] is 2 KH.

The same difference is seen between the short and long half open front vowels [æ] (the second formant from 1,5 to 3 KH) and [æ:] (from 2 to 2,8 KH). See Fig. 3.

A greater difference can be seen in the acoustic patterns between the half closed back vowel [o] (the second bar between 1—2,4 KH) and [o:] (from 0,6 to 1 KH). The bars of the long [o:] show already a resemblance to the u-sounds. No wonder the long [o:] has changed into [o] in some Eastern Slovak dialects, or the diphthong [uo] respectively; although mostly this change has been into a short [u]. See Fig. 4 and 5.

The long [ɛ:] is of higher frequency (the second formant from 2 to 4 kH) than the short [e] (from 2 to 3 kH), its resonance bars resembling i-sound patterns. In Eastern Slovak dialects this long vowel has changed into [i] or [e] or the diphthong [ie]. See Fig. 6 and 7.

It appears that the difference in acoustic quality between these pairs of half closed vowels [o—o:] and [e—e:] is becoming more significant in the course of time, and as this significance increases the duration of the long vowels is becoming shorter.

One or two other factors need to be pointed out. The older generation is aware that it is the longer duration that makes the difference between these pairs of sounds. The younger generation (by this we mean 30 to 60 years old) perceive the length of the

long vowels of their elders, but they themselves pronounce the sounds short. In other words:- the signal of length of the elders is perceived by the younger individuals, but it is emitted as short; as shown on the sonagrams Fig. 8 and 9, and on the Table III. The ratio between short and long vowels is 1 : 1 with the younger.

Table III (Subject C is M. G., Modra n/Cirochou).

Subject C	Duration (Time)	Ratio
<i>a para</i>	0,15 sec	1 : 1
* <i>a: pa:ra</i>	0,15 sec	
<i>æ p'æna</i>	0,18 sec	1 : 1
* <i>æ: p'æ:na</i>	0,17 sec	
<i>o pot</i>	0,17 sec	1 : 1
* <i>o: pɔ:t</i>	0,17 sec	
<i>e ščep'u</i>	0,07	1 : 1
* <i>ɛ: ščɛ:pam</i>	0,07	

* the former long vowels

It is out of scope of this paper to give all the reasons that have caused the shortening of the long Sotak vowels. We will, however, give one more.

In the Sotak dialects psycho-sociological factors have played an important part. People coming from the Sotak district into areas (especially the town Humenné) where the long vowels have been dropped and where the stress is already generally on the penultimate syllable, felt they were peculiar, or even curiosities. They were imitated and laughed at because of their speech. They therefore, consciously began to shorten their vowels. This was the reason they gave when asked them why they were trying to shorten their vowel sounds.

The children imitate the speech of the old people during the learning process, but later on they try to eliminate outstanding and handicapping variations from the norm of Eastern Slovak dialects.

And even the Standard Slovak (where the long vowels are phonemic) which they learn at school, and listen to on the radio and television does not prevent this process going on.

Liška: Length of Vowels in Sotak Dialects

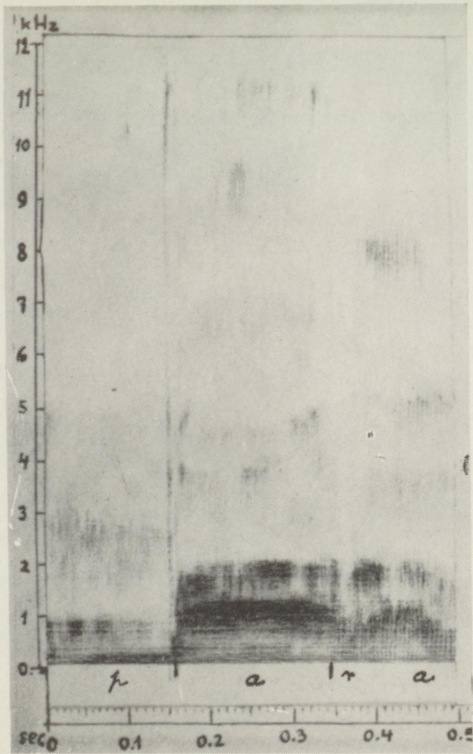


Fig. 1.

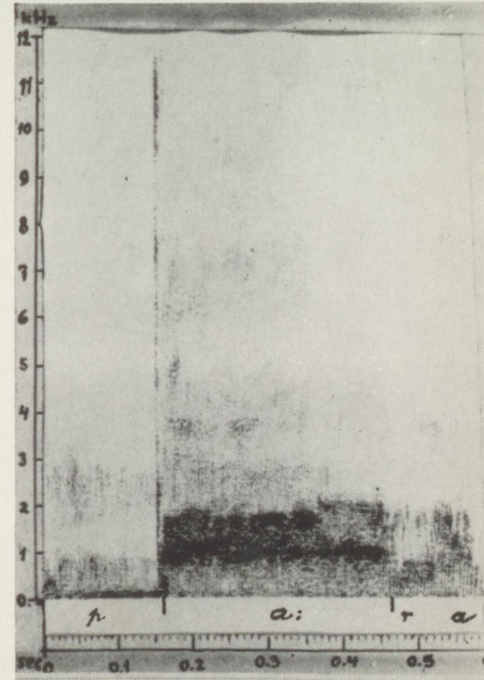


Fig. 2.

Liška: Length of Vowels in Sotak Dialects

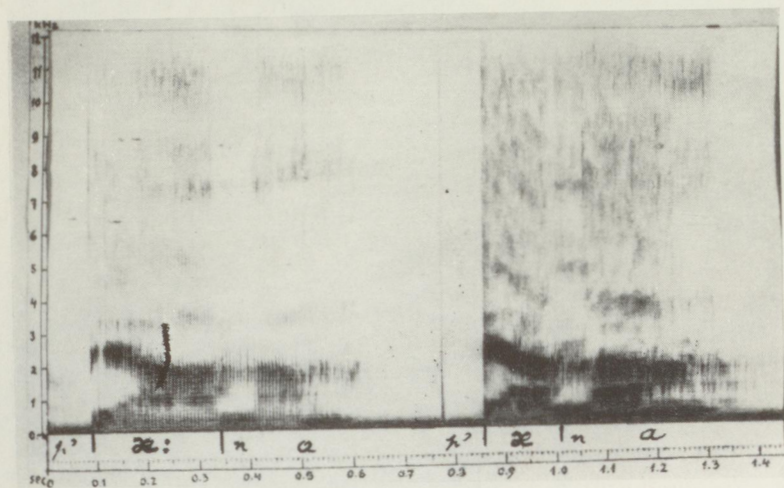


Fig. 3.

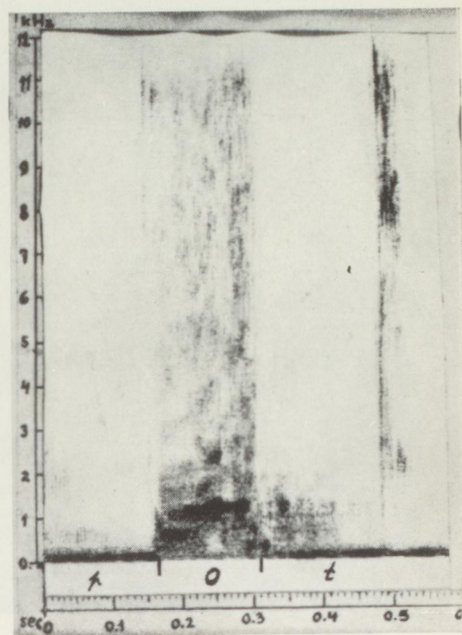


Fig. 4.

Liška: Length of Vowels in Sotak Dialects

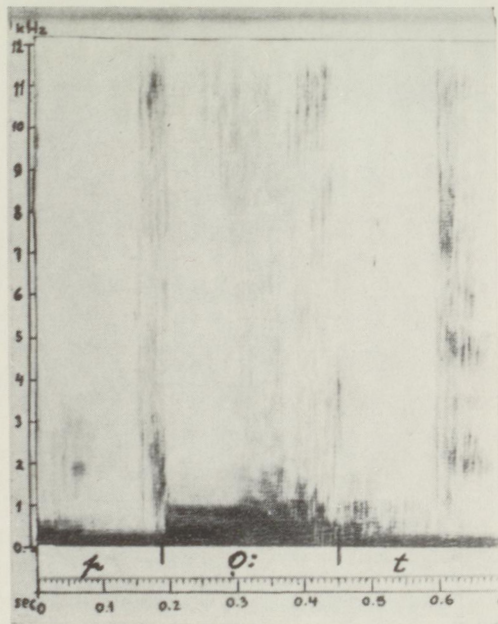


Fig. 5.

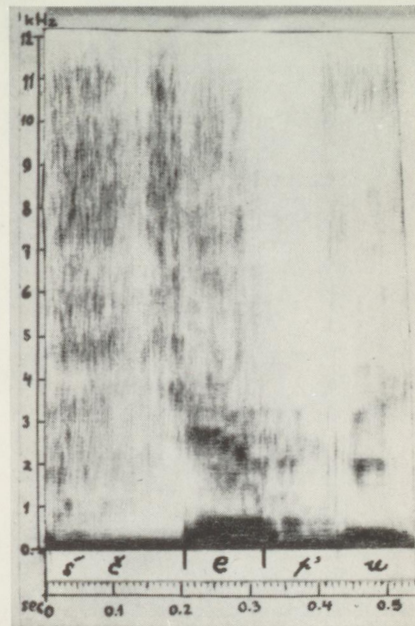


Fig. 6.

Liška: Length of Vowels in Sotak Dialects

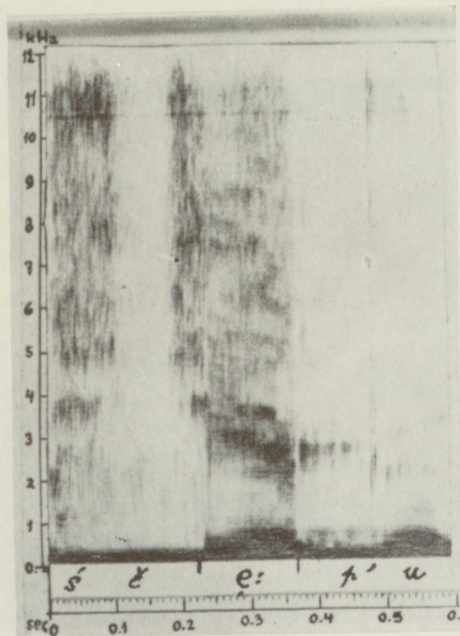


Fig. 7.

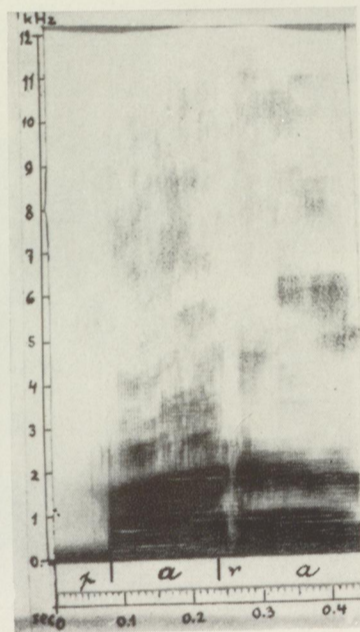


Fig. 8.

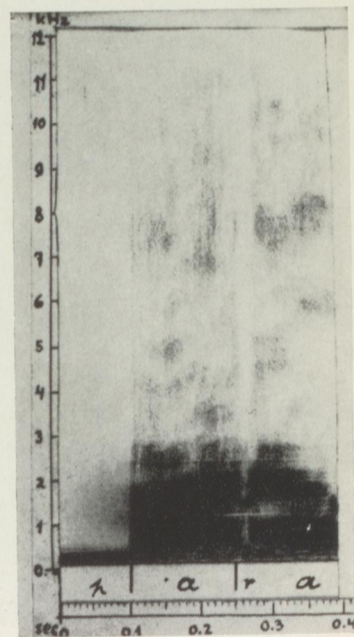


Fig. 9.