In Serbo-Croatian (SC) the word accent consists of three elements: stress, length, and pitch. The combination of these elements gives four accent types: short falling (\(s_f\)); long falling (\(l_f\)); short rising (\(s_r\)) and long rising (\(l_r\)).

There are some restrictions with regard to the distribution of the four accent types: in monosyllabic words only the falling accent can occur; if a word is accented; polysyllabic words can carry the falling accent only on the first syllable, while tonal patterns (pitch) are associated with stressed syllables, "the quantity system is relatively more independent, since quantity contrasts are also in unstressed words. Apart from numerous dialectal variations, two variations are acceptable in standard SC: optional or non-existent posttonal vowel length.

The fact that only the falling accent can occur in monosyllabic words has probably lead Fredrick son et al. to an inexact conclusion that "monosyllabic pronouns do not have a falling accent, tone." A more precise statement pertaining to tone in monosyllabic words only the falling accent can occur; if a word is accented; polysyllabic words can carry the falling accent only on the first syllable, while tonal patterns (pitch) are associated with stressed syllables, "the quantity system is relatively more independent, since quantity contrasts also occur in unstressed words. Apart from numerous dialectal variations, two variations are acceptable in standard SC: optional or non-existent posttonal vowel length.

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while the point at which their responses become msec. respectively, with 53.33% "short" and "6.672 curs at the same point as for native speakers of SC cant shift ln judgements from "long" to "short" oc-
"long" responses in each. Obviously, the signifi-
significance of these two stimuli (h and 5) was 158 and 147
As it can be seen from the Figure. these 3 listen-
speakers of SC. First of all, their responses are
Three out of 8 American subjects were non-random in
their responses. Figure 2. shows pooled responses
of these three listeners in terms of percentage of
long and short responses to a particular vowel du-
Figure 2. Pooled responses of 3 American subjects
of different vowel durations (o - pas; x - pas)
Figure 1. Pooled responses of native speakers of SC
to eight different vowel durations (o - pas; x - pas)
With respect to their responses American subjects
can be divided into two groups. Five out of 8 Ame-
ericans made obviously random judgements of the vowel-
duration. No pattern was found that might indi-
cate at least a tendency to label the stimuli with
some consistency in accordance with their duration.
concerning vowel duration in their own speech, exhibit
categorical percept on the vowel and when asked to make lexical
judgments, rather than just the extremes, would yield
closely to those obtained for native speak-
ers of SC.
It should also be noted that 3 out of 5 tokens of stimulus 5 (vowel duration of 147 msec), to
which random responses were given both by native speak-
ers of SC and the Americans, occurred very early in
the test (positions 3, 8 and 10). Stimulus 5 was the
only stimulus longer than the longest vow-
el bearing the SF accent, found in acoustical mea-
surements preceding the experiment and in litera-
ture. The fact that the stimulus of such "border-
line" duration was presented so early in the test
might have contributed to the randomness of
responses to the above mentioned stimulus. It remains
to be determined whether a pre-test session pro-
vided for the native speakers of SC would result in
a clearer switch from pas to pas without randomness of responses between the.
The acoustic measurements of natural productions are regarded as
words pas and pas carried out during the prepara-
tion for the experiment, as well as the data found
in literature, show that the vowels bearing the SF
accent are not shorter than 170 msec and that the
vowels bearing the SF accent are not longer than
140 msec. The results of this study indicate that the native speakers of SC do not label shorter-than-natural durations of vowels under SF accent as long or natural durations of vowels under SF accent as short. Even the fact that vowel duration is phonemic in SC and native speakers of this language utilize it in their own speech and hear it in everyday con-
munication.
- Testing of larger groups of subjects is necessary to determine which type of perceptual behavior is more characteristic for the Americans who do not speak SC.

CONCLUSION
On the basis of the results of this pilot study the following conclusions can be drawn:
- Native speakers of SC, who utilize the long-short distinction in their own speech, exhibit categorical perception of this distinction when asked to label words (in carrier sentence) which differ only in the duration of the vowel and when asked to make lexical
judgments.
- The cross-over point, at which the judgements of native speakers of SC shift from long (pas) to short (pas) occurs at the stimulus with the vowel duration of 147 msec, which is slightly longer than the longest duration of the naturally produced vowel bearing the SF, found in literature
and in preliminary acoustic measurements.
- American subjects, who do not speak SC, exhibit two types of perceptual behavior in their acoustic
judgments. These types are found in the target vow-
el - their responses are either entirely random or show a pattern similar to that found in the responses of native speakers of SC.
- American subjects whose responses are not random start to shift their judgements from "long" to "short" earlier than the native speakers of SC, i.e. at a longer stimulus (150 msec) but the sig-
ificant switch occurs at the same point as for
native speakers of SC (137 msec).
- There is evidence that native speakers of SC are more attentive to the long-short distinction than the American subjects, which can be attributed to the fact that vowel duration is phonemic in SC and native speakers of this language utilize it in
their own speech and hear it in everyday con-
munication.

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