It is shown that syllable sequences containing complex consonant clusters are perceived as faster than articulatorily less complex ones of the same duration; furthermore, that in AJ-discrimination the second test item is perceived as faster.

Although German is supposed to be stress-timed, compression of complex stress feet to the duration of simple ones is known not to be complete (2). and thus complex syllables should be perceived as faster in contrast to simpler ones of the same duration (1). With the following experiments we not only to study this effect in more detail.

METHOD
Three five-sequences identical with set 1 to be obtained by deleting the initial metronome signal of variable frequency. These sequences are in accent with the phonotactic rules of German. The metronome frequency was used to control the speech rate was varied in steps of 5 from 90 to 110 beats per minute. In this way we got five items in the range of the following sets: (1) /'fpa:te/' /'ra:te/' /'fpozte/ at the mean rate of 100, and both combinations in reversed order. each /'fpa:te/', /'fpozte/ at the mean rate of 100, and both combinations in reversed order. The segments were measured independently: pre-stressed consonants from the beginning of the fricative noise till voicing onset of the vowel /r/. or till the end of the /r/-obstruction marked by a clear break in the frication formants. stressed syllables till the /r/-onset. unstressed syllables till the /r/-offset; i.e. till the vowel onset of the vowel; unstressed syllables till the /r/-offset; and simple feet from one following /Te/.

3. /'fpa:te/', /'fpozte/.

Acoustical analysis: Durational Measurements
The measurements of the relevant parts of the utterance used in the German perception experiments were made using broad band-limited signals of variable frequency. The segments were measured independently: pre-stressed consonants from the beginning of the fricative noise till voicing onset of the vowel /r/. or till the end of the /r/-obstruction marked by a clear break in the frication formants. stressed syllables till the /r/-onset. unstressed syllables till the /r/-offset; i.e. till the vowel onset of the vowel; unstressed syllables till the /r/-offset; and simple feet from one following /Te/.

RESULTS
Perception Experiments
The results of the different subtests are seen in the analysis of variance shown in Fig. 1. For further analysis of the median of 'same'-responses (F(1, 86) = 13.48; p < .001) it was shown that the median of the German was significantly different from 100, whereas the median of the German was not significantly different from 100 (both rates). Parallel to the German results the analysis of variance shows a clear effect of the median of the American-English material and subjects (F(1, 86) = 9.22; p < .01). For further analysis of the median of 'same'-responses (F(1, 86) = 13.48; p < .001) it was shown that the median of the German was significantly different from 100, whereas the median of the American-English material and subjects (F(1, 86) = 9.22; p < .01). Because of the reasons mentioned above the analysis of the median of the American-English material and subjects does not show a significant effect of order of presentation.
DISCUSSION

The durational measurements have shown that there was a good approximation of the metronome rate at the level of foot duration. But this durational compression is seen to work differently in different parts of the foot. Intrinsic durational differences of the stressed syllables for example are compensated for by the durational behaviour of the unstressed syllable. Although at the syllable level there are durational differences due to the complexity of the initial consonance, up to 50 msec, the complex utterances are perceived as being uttered at a faster rate of speech. Clearly this judgement of the hearer must be based on a measure of articulatory movements per unit time.

REFERENCES
