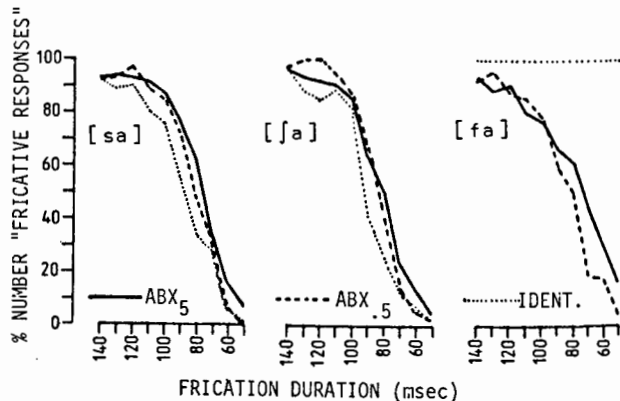


AUDITORY AND PHONETIC PROCESSING OF ITALIAN VOICELESS FRICATIVES SHORTENED IN DURATION

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In order to investigate the possibility of a coexistence of the auditory and phonetic mode of processing for synthetic voiceless Italian fricatives, we performed two ABX discrimination tests with stimuli varying in frication duration, one with 5 sec and another with .5 sec interstimuli interval. The latter should induce the subjects to discriminate the stimuli on the basis of the variable acoustic characteristic (frication duration) rather than on the basis of the phonetic classification shown in an identification test (Ferrero et al. 1978).

The discrimination functions obtained for the three syllables are similar (see figure). Only the discrimination functions of syllables [sa] and [ʃa], compared to the results obtained in the identification test are similar, supporting the conclusion of Ferrero et al. (1978) according to whom, these fricatives are processed phonetically. While the identification task for [fa] seemed to be based on a phonetic analysis, the discrimination task seems to induce an auditory analysis. These results may suggest that the processing of the fricatives involves both auditory and phonetic stages of information processing. The same conclusions are drawn comparing the performance of the subjects for syllable [fa] in the discrimination tests with .5 sec and 5 sec interstimuli interval.



Reference

- Ferrero, F., G. Pelamatti, and K. Vagges (1978): "Perceptual category shift of Italian fricatives as a function of duration shortening" submitted for publication in Frontiers of Speech Communication Research, B. Lindblom and S. Ohman (eds.), London: Academic Press.