PERCEPTION OF STOP CONSONANTS BEFORE LOW UNROUNDED VOWELS

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Previous experiments in the perception of stop-vowel syllables have sampled the entire vowel space rather coarsely (e.g. Delattre et al., 1955; Harris et al., 1958; Hoffman, 1958; Liberman et al., 1954). The present experiment looks more closely at the perception of stops with four low unrounded vowels differing only in F2 frequency and heard as more or less backed variants of [ɑ].

Labelling Tests

For each vowel, two labelling tests were prepared from synthesized stimuli. The onset of the F3 transition was varied in seven 200 Hz steps centering on the F3 steady state value and the onset of F2 was varied in five 100 Hz steps centering on previously obtained estimates of the [b-d] and [d-g] crossover points for F2 with a straight F3 transition. The tests were given to 12 subjects.

Results

The pattern of crossover values obtained reflects the interaction of the F2 and F3 transition cues and the sharp difference in the velar locus before front and back variants of [ɑ].

References

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