ADAPTATION IN SYLLABIC CONTEXT: VOWEL CONTINGENT OR SPECTRAL SPECIFIC

Peter Howell, Department of Psychology, University College London, Gower Street, London, WC1E 6BT, England

A speech adaptation experiment is reported using stimuli which have the same spectral components when cueing a given phoneme before different vowel segments. The stimuli used were consonant-diphthong syllables the diphthongs of which have a rising (/eI/) or falling (/au/) second formant transition. Cooper (1974) has shown that repeated presentation of an alternating sequence of stimuli varying in voicing and in the vowel gives phoneme boundary shifts contingent on the identity of the vowel across the adaptor and test series. One explanation of this result is that vowel contingent feature detectors exist. Another is that adaptation operates on spectral regions.

It is shown that no contingent adaptation effects occur for the stimuli in the present experiment and adaptation occurs in given spectral regions. Further evidence for this conclusion is provided by showing that with one adaptor from a different series, adaptation occurs.

Reference

Cooper, W.E. (1974): "Contingent feature analysis in speech perception", Perc.Psych. 16, 201-204.