

PERCEPTION OF SYNTHETIC VOWELS BY MONOLINGUAL AND BILINGUAL
MALAYALAM SPEAKERS (pp.216)

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The purpose of this study was to examine the perception of vowels by speakers of English and Malayalam, native language of the state of Kerala, India. Three groups of subjects participated in the study, native speakers of English (L1E), native speakers of Malayalam (L1M) and native speakers of Malayalam who learnt English as a second language (L2M). There were three groups of subjects with ten subjects in each group.

The first experiment examined how the perceptual vowel space is organized by the three subject groups. There were differences in the perceptual vowel space for English vowels for L1E and L2M groups. While the L1E group organized the perceptual space in to separate regions for the vowels of English, the L2M group was found to use fewer vowel categories to organize the vowel space. There were some differences in the native vowel space for L1M group and L2M group as well. This suggests that long-term use of a second language does change some aspects of the native vowel space for native speakers.

The second experiment examined the smallest difference in frequency that was discriminated by the three groups. Three vowels, /i/, /æ/ and the ambiguous vowel between /ɪ/ and /ɛ/ were studied here. A same/different task was used in this experiment. The results of the analysis showed that there is

a significant difference between L1E and L1M for vowel /æ/ and /ɪ/-/ɛ/. There were no significant differences for the other two vowel categories. The vowel /æ/ is absent in Malayalam and hence it is seen that the speakers of this language are less sensitive to formant frequency changes in this region of vowel space compared to native English speakers.

The third experiment examined the discrimination and identification of vowel duration. There were no significant differences between the three subject groups in the discrimination of vowel duration. However the identification of vowel duration seemed to be different across the three groups. The L1E group seems to respond differently to changes in vowel duration than the L1M group. These findings have implications for cross-language research.
