ACOUSTICS2008/3381

Nonnative listeners prefer perceptual cues they know from their L1: Dutch listeners use vowel duration less than English listeners for English final /v/-/f/

Mirjam Broersma Radboud University Nijmegen, PO Box 9104, 6500 HE Nijmegen, Netherlands

Two 2AFC experiments investigated Dutch and English listeners' use of preceding vowel duration for the English nonword-final /v/-/f/ contrast. Like English, Dutch has a /v/-/f/ contrast, but unlike English, Dutch has no final /v/. Dutch listeners therefore have no native language experience with the use of preceding vowel duration as a final voicing cue. Previous research showed that Dutch listeners used preceding vowel duration less than English listeners when it was invariable in the experiment (Broersma, 2005, JASA, 117, 3890-3901). The present results show that they also used it less when it was varied. An 11-step fricative voicing continuum from a natural /v/ to a natural /f/ and a 7-step vowel duration continuum from a long (originally /v/-preceding) to a short (originally /f/-preceding) vowel were created. In Experiment 1, all steps of the fricative voicing continuum were combined with one long and one short vowel. In Experiment 2, all steps of the vowel duration continuum were combined with the /v/ and /f/ endpoints and with one ambiguous fricative. In both experiments, Dutch listeners used fricative voicing more and vowel duration less than English listeners did. Thus, the nonnative listeners especially used the perceptual cues they knew from their native language.