Sensitivity to mispronunciations in newly learned words in French-learning 12-month-old infants

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Nespor et al. (2003) proposed that consonants and vowels carry different functions in language processing, vowels being more important for prosodic and syntactic processes and consonants for lexical-related processes. The C-bias in lexical processing is supported by adult and infant studies in several languages including English or French, although some cross-linguistic variations exist (see Nazzi & Cutler, 2020, for a review). It has also been proposed that the C-bias is related to vocabulary learning (e.g., Von Holzen, Nishibayashi & Nazzi, 2018). The present study tests this proposal, by teaching French-learning 12-monthold infants a new word, determining their sensitivity to consonant and vowel mispronunciations, and then assessing whether their differential sensitivity to the two kinds of mispronunciations predicts later vocabulary learning. More specifically, we used a version of the switch task (Stager & Werker, 1998; Singh et al., 2016) to teach 34 French-learning 12-month-olds a new word (either /pu/, /bu/, /py/, or /by/, counterbalanced across infants) in sentential contexts, and then, once habituated, test them on isolated word forms corresponding either to the correct pronunciation, a consonant mispronunciation or a vowel mispronunciation. Results show that infants' average looking times (LTs) for mispronunciations are longer than for correct pronunciations (10.96 versus 9.41s, $p = .039$, 1-tailed), but there was no difference between the LTs for Cand V-misps (11.00 versus 10.91, $p = .47$, 1-tailed). Furthermore, correlations between the difference in LTs for C- and V-misps and comprehension and production vocabularies at 12 (concurrent) and 16 months (evaluated with French versions of the CDI) failed to reach significance. The present findings first suggest that the task was difficult for our 12-month-olds, who potentially would have needed more time to learn the words (12 infants showing familiarity rather than novelty effects), and is currently being replicated in 16- month-olds.