

[pla] is equal to [pra], but [la] is not equal to [ra]: Syllable effects on the mispronunciation sensitivity of liquids in Brazilian Portuguese

This study investigates the role of syllable structure on the production and mispronunciation sensitivity of liquid consonants by children learning Brazilian Portuguese as their first language. In BP, lateral /l/ and tap /r/ are allowed in both simple (CV) and branching (CCV) onsets, as in /salada/ 'salad', /pirata/ 'pirate', /plaka/ 'signal', /prato/ 'plate'. To verify whether liquids would have fully specified or holistic representations in children's stored lexical forms, and to discuss possible syllable structure effects on the segmental representation process, we conducted a word-repetition and a mispronunciation detection tasks testing if children would be equally sensitive to liquid mispronunciations in both CCV and CV contexts and in both liquid mispronunciation directions (/l/→[r] or /r/→[l]). Participants (2;11-5;11 years old) were divided into three groups: children who consistently produce target-like liquids in CCV and CV syllables (Target_Group); children who consistently swap the liquids in CCV, but not on CV (Swap_Group); and children who consistently produce both CCV and CV in a non-adult way (Error_Group). Results show that Target_Group can detect mispronunciations in both CV/CCV contexts and liquid directions, as expected. Error_Group accepted liquid mispronunciations in CCV at a random level; in CV, 30% of both mispronunciation directions were detected, pointing that liquids in CCV and CV are not fully represented in this group. In Swap_Group an asymmetry is observed: liquid substitutions were productively detected in CV, but only partially detected on CCV. Regarding the mispronunciation direction, /r/→[l] substitutions were detected significantly more than /l/→[r] in CCV. Therefore, this group shows that the same consonants can be detected as mispronounced in simple onsets, but not in branching onsets. We argue that in Swap_Group the liquids occupying the branching onset are not fully specified on the phonological representation of words, leading to no contrast between /l/ and /r/ in this position both in production and perception tasks. The liquid detection asymmetry is accounted by assuming /l/ as the default liquid consonant, which predicts mismatches on the detection of /r/→[l] substitutions, but not on /l/→[r] substitutions. We conclude that syllable development plays a role on the specification of segmental properties in lexical representations.