

Perceptual Consequences of Speech Cues in French-speaking Children With Dysarthria

E. Levy, G. Moya-Gale, L. Romero-Gomez, Y. Hwa Chang, A. MacLeod,
S. Majdalani, N. Della-Posta, C. Maillart

Articulatory working space and vocal intensity are reduced in many children with dysarthria due to cerebral palsy, but little is known about effects of treatment cues that target these underlying impairments on intelligibility, especially for speakers of languages other than English. This study examined perceived changes in the speech of 11 Belgian-French-speaking children with dysarthria who were provided with models and cues targeting enhanced articulatory-working space (“parle avec ta grande bouche” [“speak with your big mouth”]) and greater vocal intensity (“parle avec ta grosse voix” [“speak with your strong voice”]). Sixty-six Belgian-French listeners transcribed the children’s utterances orthographically and rated their ease of understanding on a visual analogue scale (VAS) at word level and at sentence level. Word transcription accuracy scores increased in both “big mouth” and “strong voice” relative to the habitual speaking style. Scaled intelligibility increased in the two speaking conditions relative to the habitual condition at both the word-level and the sentence-level. Findings further revealed individual variability in perceptual outcomes across children. Comparisons of French results to a previous English stimulability study may reveal language-specific and language-independent effects of such behavioral cues.