

The acoustics of /l/ in Australian English

Past research has shown that the alveolar lateral approximant /l/ exhibits considerable acoustic variation, but there has been little study of this variation in Australian English (AusE). Here we aim to address this gap in the phonetic literature with three studies designed to provide an acoustic description of /l/ in this variety. The first study examines the speech of 149 teenage Australians from different heritage language backgrounds (English, Arabic, Chinese, South East Asian, South Asian) extracted from the Multicultural Australian English Voices of Sydney (MAE-VoiS) corpus (Cox & Penney 2024). /l/ was sampled from both word list and conversational data using F2-F1 as an index of /l/ darkness (Kirkham 2017). Results showed, unsurprisingly, that onset /l/ is clearer than coda /l/, but more intriguingly, that monolingual English speakers differ from the other heritage language groups by producing distinctly dark onset laterals. The second study describes real-time change to the acoustic realisation of /l/ in AusE by comparing two corpora of teenage speech collected approximately 30 years apart from the same location in Sydney. Results show that /l/ has darkened in both onset and coda positions over the 30 year time period, and that the effect is much greater for female speakers than male speakers. Lastly, the third study reports on /l/ vocalisation in this variety for monolingual English speakers and speakers with Arabic language heritage. A range of acoustic metrics tested (such as F3, Intensity, HNR) were inconclusive in disambiguating perceptually vocalised versus non-vocalised tokens, in part because of the relatively small number of non-vocalised tokens, but also due to the monolingual and Arabic-heritage speakers utilising different strategies in achieving the percept of vocalisation. The characteristics of speakers' strategies are discussed, highlighting a unique process found amongst some of the Arabic-heritage speakers in the production of syllables containing coda /l/ that has not been previously described for AusE.

Cox, F. & Penney, J. (2024). Multicultural Australian English – The new voice of Sydney. *Australian Journal of Linguistics*, 44 (2-3), 200-219.

Kirkham, S. (2017). Ethnicity and phonetic variation in Sheffield English liquids. *Journal of the International Phonetic Association*, 47(1), 17-35.