A Cantonese sound change in a Cantonese-English bilingual lexicon

Rachel Soo & Molly Babel

A sound change is present in Cantonese wherein word-initial /n/ (historical variant) becomes /l/ (innovative variant), which produces homophony (e.g., /naam4/ “boy" → /laam4/ “blue"~”boy”; Cheng, 2017).While dialect variants are represented in the lexicon (Sumner and Samuel, 2009), it is unclear whether this holds for sound changes-in-progress and how a bilingual population may lexically encode these variants. We investigate how /n/ and /l/ are processed by early Cantonese-English bilinguals in an immediate priming experiment. 40 participants made lexical decisions on /l/-initial target words (/laam4/ “boy") preceded by identity (/laam4/ “boy"), historical (/naam4/ “blue"), or rhyme (/taam4/ “phlegm") prime types. A linear mixed effects model predicting reaction times revealed no significant difference between identity and historical trials (β = -45.59, p = 0.123), suggesting that the /n/-initial primes facilitated recognition of the /l/-initial targets no differently from /l/-initial primes. Crucially, this was not simply due to shared rhymes, as the difference between historical and rhyme trials was significant (β = 68.81, p = 0.009). These data suggest that regular exposure to sound change variants supports perceptual flexibility to multiple phonetic forms. The consequence of this is a dual-mapping of /n/ and /l/ to a single lexical representation (Samuel and Larraza, 2015). To examine this dual-mapping more closely, we also present data from a long-term priming experiment (n=14, data collection ongoing), where priming across longer distances is expected if /n/ and /l/ are variants of one underlying form. Furthermore, the outcome of this sound change is not just the mapping of multiple phonetic forms to the same lexical representation, but also the mapping of the same phonological form to two separate semantic concepts. Thus, we present data from a cross-modal translation priming experiment (n=12, data collection ongoing) examining how this sound change is encoded at a representational level cross-linguistically.