

Mental representations of L2 sounds and words

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Research on second language (L2) speech perception and production shows that the processing of L2 sounds continues to be influenced by the phonological system of the native language (L1). In particular, L2 phonemic contrasts can be difficult to differentiate when the two contrasting sounds correspond to a single L1 category (e.g., English /l-/r/ for L1 speakers of Japanese). However, L2 speakers do learn words containing such contrasts and many also learn to differentiate them in perception and production to various degrees. What do the phonological representations of these words look like in the mental lexicon of an L2 speaker? Is it possible that at some level, words that differ by a non-native contrast are encoded as if they are homophones? And does this type of indeterminacy persist even when the auditory perception of the sounds is bypassed (for instance in orthographic words) or acquired to a fairly reliable level?

In this talk, I address these questions by discussing the results of a series of experiments that involve the recognition of familiar printed words or the learning of novel words by experienced L2 English speakers with an L1 background in Arabic, Greek, Japanese, or Spanish. The outcomes indicate that phonologically distinct L2 words can indeed be homophonous at some abstract level in the mental lexicon, and their phonological representations hold a complex relationship with the L2 speakers' phonetic processing ability of the relevant contrasts.