

THE ROLES OF L2 NATIVELIKENESS AND COGNITIVE RESOURCES IN THE GENERALIZATION OF L2 PHONETIC CONVERGENCE

Yumin Yang (Zhejiang University), Rendong Cai (Guangdong University of Foreign Studies),

Jiexuan Lin (Guangdong University of Foreign Studies)

Email: lin_jx28@gdufs.edu.cn

Phonetic convergence is the process whereby speakers' phonetic features become more similar to those of their conversation partners. While some studies propose that phonetic convergence is largely automatic, achieving nativelike pronunciation in a second language (L2) is challenging. To explore how phonetic convergence relates to L2 phonetic learning, this study examined the generalization of convergence and the extent to which nativelikeness in L2 pronunciation and cognitive resources influenced the degree of generalization.

We recruited 88 Chinese-English bilinguals who underwent a "pretest-exposure-posttest" paradigm. They read aloud two English word lists (i.e., an exposure list and a new list) in the pretest, listened to a native English speaker producing the exposure list during the exposure phase, and read both lists again in the posttest. The target vowels /ɪ/ and /ɒ/ were present in words from both lists (i.e., for each vowel, 20 words were selected in the exposure list and 10 in the new list). Phonetic convergence was measured by comparing participants' posttest vowel production to that of the native speaker, while controlling for their pretest production. L2 nativelikeness was determined by the acoustic distances between participants' pretest vowel productions and those of the native speaker, while cognitive resources were assessed using participants' phonological memory span.

The first and second formants (F1 and F2) of the target vowels in participants' productions were extracted and analyzed using linear mixed-effects modeling. The results showed that participants converged towards the native speaker in both formant values during the posttest. Furthermore, the converged features generalized to new words containing the target vowels in the F2, even though these words were not presented during the exposure phase. The extent of generalization in the F2 was influenced by both L2 nativelikeness and phonological memory span. Specifically, participants with less nativelike L2 production exhibited greater generalization; individuals with larger memory spans demonstrated stronger phonetic convergence, particularly among those with less nativelike production compared to those with more nativelike production.

This study contributes to the understanding of the generalization of L2 phonetic convergence. It supports the claim that L2 phonetic convergence is less automatic than L1 convergence and highlights the role of cognitive resources for L2 speakers with less nativelike production. The findings have implications for L2 pronunciation training.