Attention Allocation in L2 Phonetic Imitation

Fujie Yin, Jiexuan Lin, Rendong Cai

Guangdong University of Foreign Studies (China)

Research has shown that phonetic imitation, supported by the perception-production link, may not be entirely automatic, particularly for phonetic imitation in the L2 [1,2]. While initial evidence showed that greater imitation was associated with increased attention to detail and stronger inhibition ability, few studies had directly manipulated attention allocation to investigate its specific role in the process of imitation. The potential effect of attention allocation could better manifest itself when the task imposes a high cognitive load, particularly for L2 speakers. Therefore, the present study aimed to answer two research questions: 1) *How does attention allocation affect L2 phonetic imitation*, and 2) *Are the effects of attention allocation modulated by the availability of cognitive resources?*

We employed a "pre-test—exposure—post-test" paradigm with 100 female Chinese-English bilinguals as participants. Stimulus consisted of 48 mid-frequency monosyllable words embedded with the target vowels /ɛ/, /æ/, /ɪ/ and /i/. Participants read aloud these words in the pre-test and the post-test. During the exposure, participants heard a word read by the model talker, a native speaker of British English, and judged whether the word was a rhyme/hyponym (form-focused vs meaning-focused) of two visually presented alternatives. Half of the participants performed the judgment task alone (the unloaded condition), and half performed it in parallel with a dot memorization task (the loaded condition).

The F1 and F2 values of participants' vowel productions were extracted, and the degree of imitation was measured by examining the extent to which the post-test productions were influenced by the model talker's productions, controlling for participants' pre-test productions. Results of mixed-effects modelling showed that attention allocation influenced L2 phonetic imitation such that attending to form promoted imitation (Fig. 1). Additionally, for the vowel /ɛ/, attending to form elicited a greater degree of phonetic convergence ($\beta = 0.482$, $t = 27.585$, $p < .001$), and this was more pronounced under the loaded than the unloaded condition ($\beta = 0.032$, $t = 2.760$, $p < .05$). The results contribute to specifying the role of attention in L2 phonetic imitation and offer implications for L2 phonetic teaching.
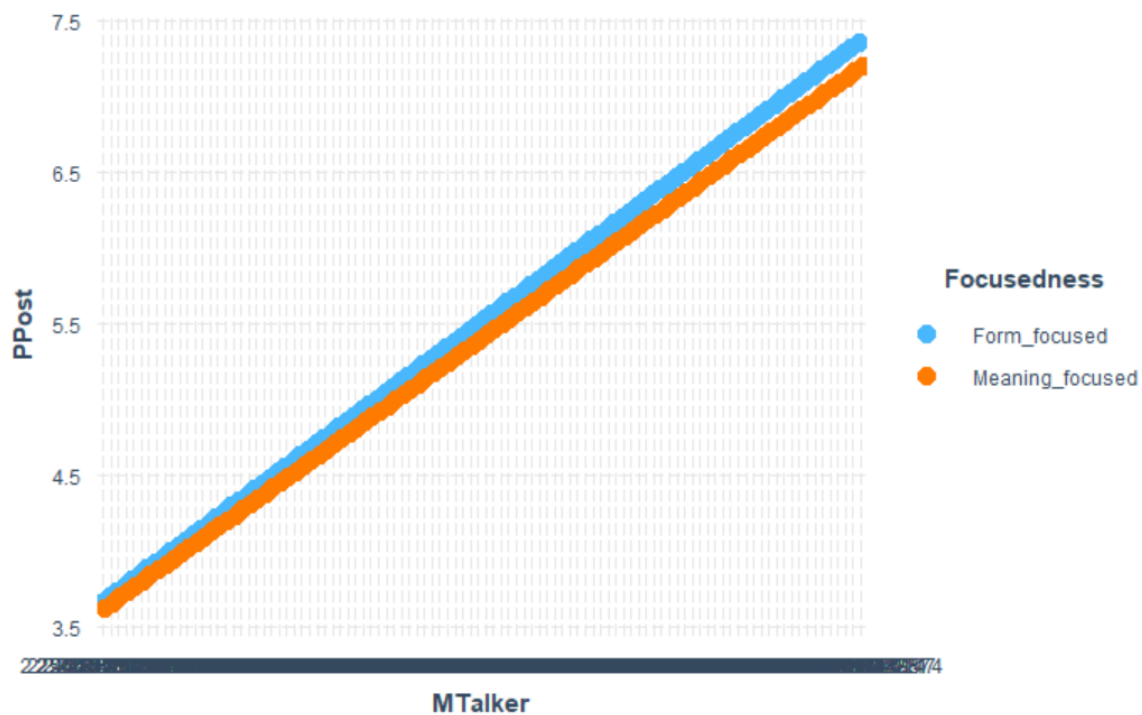
Fig. 1. Phonetic imitation (i.e., the degree of post-test production of participants (PPost) impacted by the model talker (MTalker)) as a function of attention allocation (Focusedness: form-focused vs meaning-focused)

References

[1] Coles-Harris, E. (2017). Perspectives on the motivations for phonetic convergence. *Language and Linguistics Compass*, *11*, e12268.

[2] Llompart, M., & Reinisch, E. (2019). Imitation in a Second Language Relies on Phonological Categories but Does Not Reflect the Productive Usage of Difficult Sound Contrasts. *Language and Speech*, 62(3), 594–622.