

*The Cross-Script Phonological Priming Effect from L2 to L1 with English-Speaking Learners of Mandarin in Visual Word Recognition*

Differ from the Bilingual Interactive Activation model (Dijkstra & Van Heuven, 1998), which only highlights orthographic overlap among alphabetic languages, the Bilingual Interactive Activation Plus model (Dijkstra & Van Heuven, 2002) incorporates the phonology layer of both sublexical and lexical, which enables it to account for interactions between languages with different scripts, particularly those with non-alphabetic scripts (e.g., Chinese characters). Hence, more studies attempted to further explore the construction of the bilingual lexicon by including languages with distinct writing systems and by working with late bilinguals (e.g., Zhou et al., 2010). The findings from these studies not only demonstrated the phonological coactivations but also observed the facilitative phonological priming effect.

However, most of these studies examined the direction from L1 to L2 (e.g., Ando et al. 2014). Among the few that investigated priming from L2 to L1, almost all employed English as the L2 (e.g., Zhou et al., 2010). To the best of my knowledge, no study has researched the L2 to L1 direction with English-Chinese bilinguals. Thus, my first research question is whether priming from L2, a non-alphabetic language, to L1, an alphabetic language, works in the same way as L1 to L2 in the documented findings. In addition, regarding the L2 proficiency effect, none of the reviewed studies has observed a significant interaction between L2 proficiency and the phonological priming effect. However, they all used L2 proficiency as a categorical variable in their analyses, which may not be the most appropriate method, as pointed out by Hell and Tanner (2012). Thus, my second research question is whether an L2 proficiency effect will be observed when it is applied as a continuous variable in the regression-based approach.

A masked priming lexical decision task (LDT) in visual word recognition will be conducted in the current study. The participants include English-Chinese unbalanced bilinguals differing in their L2 proficiency (novice, intermediate, and advanced) and English native speakers without any Chinese background. The L2 proficiency will be measured by the results of a battery of tests and a language background questionnaire. The stimuli consist of Chinese characters as primes and English words as targets. All the participants will perform an LDT, deciding whether a presented letter string is an English word or not as quickly and accurately as possible. Both accuracy and response latency will be analyzed. An additional Chinese character naming task will be conducted with the English-Chinese bilinguals immediately after the LDT, using the same stimuli to ensure that they are familiar with the Chinese characters used as primes.

The findings of this study will provide more evidence for the cross-language phonological priming effect and may further unveil its mechanisms and the organization of the bilingual mental lexicon. Additionally, it may also offer insights for Chinese language pedagogy by analyzing individual differences and the L2 proficiency effect.