

**SEMANTIC AND PHONOLOGICAL ACTIVATION IN FIRST AND SECOND
LANGUAGE READING**

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ABSTRACT

No consensus has been reached on whether phonological information is activated in reading Chinese. Further, semantic activation has not been well-studied in the context of orthographic depth. To contribute to these issues, this dissertation investigated semantic and phonological activation in reading Chinese and English. This dissertation also examined semantic and phonological activation in reading English as a second language, in order to shed light on how first language (L1) literacy experiences influence second language (L2) reading.

A priming study was carried out with native Chinese speakers and native English speakers reading their L1. Semantic priming and phonological inhibition were both found in the two language groups, suggesting a reading universal: any linguistic information encoded in orthographies will be activated in the reading process regardless the manners

in which it is encoded. Results also showed some language specific properties. Semantic priming occurred in the sentence-based priming paradigm in Chinese reading, but in the single-word priming paradigm in English reading, implying different semantic processes in reading these two orthographies. Phonological inhibition appeared for only low frequency Chinese targets, but for both high and low frequency English targets, showing that phonology plays a more important role in reading English than in reading Chinese.

A repetition blindness (RB) study was conducted with the same Chinese and English groups reading their L1. One major finding is that semantic RB was observed in English word pairs. The other notable finding is that phonological RB was significantly larger in English reading than in Chinese reading, indicating stronger phonological activation in the former than in the latter.

Native Chinese speakers and native Spanish speakers who were advanced learners of English also performed a priming study and an RB study in their L2, English. In the priming study, semantic priming was found only in the Chinese group, whereas phonological inhibition was found only in the Spanish group. In the RB study, semantic RB was found only in native Chinese speakers. Phonological RB, though found in both group, was significantly larger in the Spanish group than in the Chinese group. These results clearly demonstrate orthographic transfer.