With above 90% of all characters in a Chinese dictionary belonging to the semantic-phonetic compound category, Chinese orthography is really more phonetic than logographic. Previous studies have shown that regularity and consistency in the phonetic radical facilitate lexical access of phonetic compound characters. These findings are in line with the literature on lexical access of alphabetic languages, suggesting that phonology plays a common role in the process of visual word recognition across orthographies. The contradictory orthographic neighborhood density effects found in Chinese and English studies, however, challenge the universal applicability of current models of lexical access.

This paper reports an empirical study which investigates regularity, consistency and orthographic neighborhood density effects on the reading and naming of traditional Chinese phonetic compound characters based on Cantonese phonology. Results showed that by manipulating regularity and consistency at the body rime level, a facilitatory orthographic neighborhood density effect could be found in lexical decision but not naming. The implication is that regularity and consistency at the level of rime (in addition to the syllable level) is functional in Chinese reading. It also suggests that the body rime might have a general role in lexical access across languages. These findings are interpreted within the connectionist and dual-route models of lexical access.

Keywords: Chinese phonetic compounds; neighborhood density; lexical decision; naming; consistency; regularity; body rime; Cantonese