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A comparison of transposed-character effect between Chinese and Japanese speakers: Are they equally strict in processing position information of Hanzi/Kanji characters?

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Abstract

Transposed-letter (TL) effect means that TL pseudowords (e.g., mnokey) are more likely recognized as their base words (monkey) than substituted-letter nonwords (markey). Compared to TL effect studies, transposed-character (TC) effect studies on logograms, such as Chinese Hanzi and Japanese Kanji, remain limited. This study compared the TC effect between Chinese and Japanese speakers using a lexical decision task. Twenty Chinese and 21 Japanese speakers were presented the same two-character stimuli including TC pseudowords (□□-□□), control nonwords with a substituted character (□□) and real filler words. Chinese participants exhibited a TC effect: they took longer to reject TC pseudowords and misidentified them more frequently than control nonwords. Conversely, Japanese participants showed no TC effect: their reaction times and error rates showed no significant differences across two conditions. These findings suggest that Chinese speakers process Hanzi/Kanji character-position more flexibly than do Japanese speakers.

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