

# **Bilingual Proficiency Affects Inhibitory Control: A study of Stroop Performance in 8-year-old English-Chinese Singaporean Children**

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**Abstract:** Inconsistent results in the field of bilingualism and cognition may be largely influenced by variation in the nature of bilingual language proficiency. Here we explore the relationship between inhibitory control and bilingual proficiency in 43 8-year-old English-Chinese children in Singapore where bilingualism is prolific. Proficiency estimates are based on Oral and Written exam scores and caretaker estimates (including use and exposure). Children completed English and Chinese Stroop, where each task comprised 75% incongruent trials. Stroop effects were calculated for both languages. Higher English scores (written and oral) and English use predicted smaller English Stroop interference. Conversely, higher Chinese exposure and use predicted smaller Chinese Stroop interference. Thus, language proficiency, use and exposure influence inhibitory control, reiterating the need to consider bilingual proficiency when studying the relationship between bilingualism and attention. Since Stroop effects differ depending on language, bilinguals should be tested in both languages for verbal EF tasks.