The Influence of the L1 on L2 Collocation Processing in Tamil-English Bilingual Children

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This study examines the activation of the L1 during the processing of L2 collocations in bilingual children, an underrepresented population in collocation studies. Models of bilingual lexical representation and access, such as the Bilingual Activation Model (Dijkstra & Van Heuven, 2002) and the Multilink Model Dijkstra and Rekke (2010), posit that bilingual lexical processing involves nonselective, cross-linguistic activation. As these models are largely based on studies into processing of single words, and on studies involving languages which shared writing systems, it is crucially important for evidence from processing of formulaic language (fixed multiword expressions of different kinds) to inform these theories. This study therefore uses online processing measures to investigate whether crosslinguistic influence can be extended beyond single lexical items to collocations during reading, among bilinguals speaking languages with different scripts.

A self-paced reading (Study 1) and an eye tracking (Study 2) experiment were conducted with Tamil-speaking children (age 8-11). In both studies, we measured reading times on English collocations embedded in sentences. All collocations were congruent or incongruent with collocations in Tamil. Study 1 (N = 58) was conducted in India and Study 2 (N = 80) was conducted in the UK. Participants across the two studies varied substantially in their English and Tamil vocabulary knowledge and a general English proficiency scores: the ones in India had a lower proficiency in English and those in the UK a lower proficiency in Tamil. All results showed shorter reading times on congruent than incongruent collocations, both for reading times on the entire collocation and for reading times on individual words. There also appeared to be a priming effect for congruent collocations, in that the second word was read faster. However, the reverse was true for incongruent collocations.

Results clearly show that children rely on their vocabulary knowledge in L1 to aid their processing of collocations in L2 and that this cross-linguistic activation is immediate and can be captured in real time. Furthermore, cross-study comparisons suggest that the frequency and immediacy with which this occurs differs as a function of proficiency and vocabulary knowledge in both languages. While the study lends support to the assumption that nonselective, cross-linguistic activation also applies to collocations, only partial support for the BIA+ and the Multilink models was found. The data support assumptions derived from the BIA+ model, that the cross-linguistic effect would be larger from the L1 to the L2 than for the L2 to L1, because it is likely that L1 codes are activated slightly before L2 codes. The Multilink model considers word association links to play an important role in priming, which would explain the priming effects in congruent collocations.

References

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