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# Schematic Diagrams and Semantic Processing of English Prepositional Polysemy

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## Abstract

The paper investigates whether English native speakers (NSs)' and non-native speakers (NNSs)' online processing of prepositional phrases were primed by schematic diagrams and whether the priming effects were modulated by different prepositions and senses. 125 adult NS and NNS participants judged on over and in phrases that encode spatial and extended senses in a semantic priming task. Results showed an inhibitory effect of diagrams on NNSs' processing but a marginal facilitatory effect on NSs' processing. In addition, the inhibitory effect of diagrams only applied to the processing of extended senses, but not spatial senses. The current findings indicate that NNSs' processing of English PPs could be negatively influenced by schematic diagrams particularly when the target phrases are more complex (Boers, 2011), presumably due to NNSs' more limited cognitive capacity of processing complex second language expressions under time pressure than NSs.