The 'know-what' and the 'know-how': importance of declarative and procedural memory systems in the L2 learning of morphology, syntax and semantics

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Abstract

Dividing attention by loading working memory is an effective method of probing the declarative and procedural underpinnings of linguistic knowledge. The current study explores WM/DA effects on four specific L2 domains: morphology (aspect versus case), syntax and semantics (collocations). We contrast performance of 68 learners of Polish as a foreign language (L1 Chinese) in a grammaticality judgement task in baseline and divided attention conditions. We found corroborating evidence for heightened dependency on declarative memory in early (A2) L2 learners across all linguistic categories and in both experimental conditions. While the lexical judgement of more advanced (B1) learners also proved vulnerable to secondary-task interference, introduction of additional cognitive load had a positive effect on participants' grammatical judgement, yielding more accurate responses in the aspect category. These results point towards the need for pursuing a new line of inquiry into a potentially facilitative role of cognitive load on L2 learners' grammatical processing.