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Implicit versus explicit language learning: Differential effects of working memory and learning styles

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Abstract: Understanding the process of adult language learning has recently undergone advances due to the consideration of how individual differences (IDs) in cognitive processing, such as working memory (WM), affect acquisition. We know that implicit versus explicit learning conditions also influence learning, however, the potential interactions between IDs, the efficacy of implicit versus explicit learning, and different types of linguistic information are largely unknown. In this study, we tested learning of syntax and grammatical case under two conditions: incidental and explicit rule-provision (“instructed”). We also assessed individuals’ WM, phonological working memory (PWM), and learning styles. Significant learning effects were found for word order and case in both learning conditions. For case, but not for word order, the instructed group outperformed the incidental group. Regarding IDs, incidental learning of case was marginally related to individuals’ WM; instructed learning of case was related to PWM. For learning styles, there was a negative relationship between learning of word order in the instructed condition and a deductive learning style. These results reveal the complex relationships among cognitive processes in explicit and implicit language learning across different aspects of language structure, and in relation to cognitive IDs.