The Impact of Individual Learner Differences and Learned Attention on the Development of Formulaic Chunks

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Developing advanced language abilities presents a particular challenge to second language (L2) learners because of the formulaic nature of language (e.g., Howarth, 1998). In fact, formulaic language use is a 92% predictor of language proficiency (Crossley et al., 2011). While some restrictions about which words can be combined are semantically motivated (e.g., *drive a car*), many others appear arbitrary to learners (e.g., *ride a bike* vs. *drive a bike). Naturally, noticing (Peters, 2012) a formula in the input and identifying its boundaries and components is the first step to establishing a formulaic form-meaning connection (FFMC). Yet, studies have shown that learner are not aware of formulaic chunks (e.g., Arnaud & Savignon, 1997). The current investigation integrated three research areas: corpus linguistics which has established that much of language is formulaic; memory research which has shown that declarative and procedural memory contribute individual differences in L2 development (e.g., Morgan-Short et al., 2022); and cognitive linguistics inspired teaching materials which have explored explanations of polysemy and metaphorical extensions to reduce the apparent arbitrariness of language use (e.g., Bui et al., 2020; Elgort et al., 2020). study assessed whether raising learners' awareness of formulaic chunks through explicit instruction on polysemy and metaphorical extension affects a) noticing, b) the ability to identify the correct boundaries and formulaic components, and c) the ability to use formulaic chunks in writing. One hundred twenty-three A.2 and B.1 level learners of German wrote two essays. The experimental condition received instruction on polysemy and practiced noticing the motivation behind formulaic chunks. The control condition did not receive any instruction. The note-taking page was analyzed for the quantity, the completeness (semantic meaning) and the correct components (form) of chunks. Final essays were analyzed for the correct use of chunks students took notes of and chunks they had not taken notes of. All learners filled out a background questionnaire on their personal study habits and participated in a digit span test to assess working memory. Results showed that instruction on polysemy had a significant impact on note taking and on the correct use of formulaic language. The control group took mostly notes of individual words or chunks using L1 inspired translations. The experimental group took notes in form of multi-word chunks and exhibited multiple patterns: learners used formulaic chunks with an awareness of polysemy and metaphorical extensions. However, they omitted grammatical components of chunks (prepositions, reflexive adjectives), or copied components inaccurately from the input passage. These patterns were also reflected in the final essay. In addition, the impact of instruction was also significantly more effective for L2 learners who performed better on the digit span test. This finding is further explored in the context of learners' background questionnaire. These results will be discussed in light of developing an advanced bilingual lexicon and usage-based approaches to second language learning and teaching.

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