On the combined effects of crosslinguistic similarity, structural complexity, and semantic complexity on word learnability

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Past research has shown that the learnability of a target-language word is affected by the word’s frequency, whether it has a cognate in the learner’s L1, whether it violates the phonotactic constraints of the learner’s L1, how predictable its pronunciation is from its spelling, whether its meaning is lexicalized in the learner’s L1, whether its meaning is concrete and imageable, and so forth. These factors involve structural and semantic complexity, on the one hand, and structural and semantic familiarity, on the other. Research shows that these factors do indeed affect word learnability, but most existing studies have examined these factors only in isolation. The purpose of the present study is to determine how the following four variables might work in tandem: structural familiarity (formally similar to an L1 word), structural viability (structurally possible in the L1), semantic familiarity (directly translatable with an L1 word), and semantic salience (concrete and highly imageable).

The participants in the present study include 80 native English-speaking university students with no prior knowledge of Finnish. Through the use of an online survey instrument, participants were taught 16 two-syllable Finnish nouns and 16 two-syllable pseudo-word nouns that were balanced in relation to all four variables. Four versions of the vocabulary module were created with different form-meaning mappings for the pseudo words. This was done to test the effects of form and meaning separately. The results showed that structural viability had the strongest effect on learners’ ability to recall the meanings of the target words, but each factor contributed to word learnability, and the words with the highest recall tended to be those with the highest number of positive conditions. However, a novelty effect was also found whereby words with highly memorable meanings were among the easiest to remember even in the absence of any other positive condition.

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