Does sentence structure boost word learning? 
Evidence from an artificial language learning study

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Language learners use both the visual and linguistic context to learn new words. The first is used in cross-situational word learning, where co-occurrences between unknown words and visual referents across situations help to deduce their meanings. The linguistic context refers to the syntactic bootstrapping hypothesis: knowledge of the structure of sentences facilitates learning new words. The current study investigates the interaction between learning word meaning and sentence structure in an artificial language learning experiment with eye-movement recordings. Participants (N=50) watched animations with unfamiliar objects and actions while listening to sentences with either a fixed structure (VSO order) or no structure (random word order). Their knowledge of the language was tested in multiple-choice tests for both the words (4 verbs, 12 nouns) and sentences (12). This training-test sequence was performed twice. Our preliminary results show that some, but not all participants were able to uncover the underlying structure and that knowledge of the structure may start to boost vocabulary learning in a later learning phase, which would be in line with the syntactic bootstrapping hypothesis. In the future we will corroborate the latter finding and investigate the effects of other structural phenomena on word learning, such as morphology and skewed distributions.

References


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