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Learning Unnatural Language Quantifiers

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Abstract

The fact that all natural language quantifiers are conservative raises the question of whether people could hypothetically learn the conservative quantifiers more easily than the non-conservative ones. Some developmental studies attempted to answer this question, yet they did not reach any consistent results. This study offers an insight into this debate by investigating the learning of four unnatural language quantifiers with an eye-tracking experiment. This experiment employs the occluded referent paradigm, allowing us to identify which referents, hypothetical parts of the sets that the quantifiers relate to, the participants address when discovering the meanings of the quantifiers. The results show that when figuring out the quantifiers' meanings, people refer to the lexically-related referents instead of limiting their hypothesis space based on conservativity. This implies that difficulty of learning is associated with the number and lexical-relatedness of referents that the quantifier is related to, rather than conservativity.