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Title

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Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 45(45)

Authors

Felton, Casey D.

Jasbi, Masoud

Publication Date

2023

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Peer reviewed

Prior Beliefs About the Compatibility of Disjuncts Impact the Exclusivity Implication of Disjunction

Casey Felton

University of California Davis, Davis, California, United States

Masoud Jasbi

UC Davis, Davis, California, United States

Abstract

A positive disjunction (A or B) in natural language typically receives two logical interpretations: inclusive disjunction vs. exclusive disjunction. Within the Gricean paradigm, the inclusive interpretation of disjunction is considered its basic meaning while the exclusive interpretation is caused by Gricean pragmatic reasoning, called exclusivity implicatures. However, pragmatic reasoning is not the only source of exclusivity. In this paper we quantify the role of prior beliefs regarding the compatibility of the two propositions (A, B) in a disjunction (A or B). In two experiments, we tested the impact of prior compatibility on exclusivity implication generation using examples from the literature. Our results show that prior beliefs about compatibility influence the overall exclusivity of a disjunction, but that significant exclusivity remains to be explained by other sources. We conclude that most exclusivity implications are composite implications that feed from minimally two sources: prior beliefs about compatibility and Gricean pragmatic reasoning.