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# From Dilemma to Conclusion: Semantic and Pragmatic influences on Deductive Reasoning with Incompatibility.

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## Abstract

Incompatibilities are ever present in our language. Interpreting and reasoning with them is essential for understanding each other and the world, and distinguishing between true and perceived dichotomies is fundamental to critical thinking. Despite all this, inferences from incompatibility statements remain empirically understudied. We present two experiments, that aim to investigate specific semantic and pragmatic influences on human deductive reasoning with incompatibility. In both a child and adult sample, we compared participants with and without an ASD-diagnosis. Systematic differences were found between the adult ASD and non-ASD populations, with the former showing more difficulties identifying the logically valid responses.

**Keywords:** Deductive reasoning, Incompatibility, Autism Spectrum Disorder

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