The Effects of Causal Structure on Causal Attribution Judgements

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Abstract

We report two within-subjects experiments exploring the relationship between causal structure and causal attribution judgments. Both experiments comprised scenarios instantiating five unique causal structures: (a) causal chain, (b) positive feedback loop, (c) negative feedback loop, (d) common cause, and (e) common effect. Each scenario involved various causal and outcome events occurring in a sequence (e.g., Events 1 and 2 caused Event 3) and subjects were asked to make judgments about the impact that each causal event had on the outcome event. Experiment 1 lacked domain information, whereas this information was included in Experiment 2. We find evidence of recency and primacy effects, but these effects differed based on the scenarios' causal structure. Recency effects occurred for scenarios with causal chains and positive and negative feedback loops, whereas primacy effects were found for common cause scenarios. We thus demonstrate that causal attribution judgments indeed vary as a function of causal structure.

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