

Multiple Causal Explanations: When Do We Discount and When Do We Integrate?

Edward Munnich

University of San Francisco

Melissa Latham

University of San Francisco

Jennifer Milazzo

University of San Francisco

Jennifer Zisa

University of San Francisco

Saera Khan

University of San Francisco

Abstract: Numerical reasoning research points to the value of considering multiple causal mechanisms that give rise to a statistic. However, much evidence suggests that people prefer simple causal explanations, and discount one causal explanation when another is salient. This led us to ask when and how people integrate causal alternatives. We presented causal reasons for changes in statistics (e.g., traffic fatalities) that were either directly relevant or irrelevant to an action, and asked participants how willing they were to take each action. By presenting two causal reasons in counterbalanced order, we were able to consider the extent to which participants integrated causes in their action decision. We found broad support for discounting but also some evidence for integration of explanations, and will discuss circumstances that lead people to integrate multiple explanations rather than discount.