New Research From Psychological Science

November 22, 2017



Read about the latest research published in *Psychological Science*:

Eye-Tracking Causality

Tobias Gerstenberg, Matthew F. Peterson, Noah D. Goodman, David A. Lagnado, and Joshua B. Tenenbaum

How do people make causal judgments? *Counterfactual theories* of causal judgments suggest that people determine causation based on whether an action would have occurred without the candidate cause. *Process theories*, in contrast, suggest that people base their causal decisions only on what actually happened — not what might have been. In this study, the researchers examined how people make causal judgments about physical interactions by tracking the eye movements of participants as they watched video clips in which two balls (A and B) collided on a field with a gate at one end. The clips differed in whether Ball B clearly missed the gate, clearly went through the gate, or barely missed or went through the gate. The clips also differed in what would have happened to Ball B if Ball A had not been present. Eye tracking indicated that participants extrapolated the target ball's counterfactual motion path to determine whether the candidate made a difference to the outcome. The more certain participants were that the counterfactual outcome would have been altered from the actual outcome, the more they agreed with statements indicating that one ball made the other go through — or miss — the gate. This study is one of the first to demonstrate the close relationship between counterfactual reasoning and causal judgments.

The Empirical Case for Acquiescing to Intuition

Daniel K. Walco and Jane L. Risen

People sometimes recognize that their intuitive judgments are wrong while still maintaining those judgments — a phenomenon termed *acquiescence*. Although researchers have previously argued for the existence of acquiescence, a convincing empirical demonstration has been lacking. The authors remedy this in a series of four studies. In the first study, participants completed a ratio-based paradigm. In the second study, participants guessed which of three envelopes contained money. They were then given the

chance to trade their one envelope for the other two envelopes. In a third study, participants played hands of blackjack, and in a fourth study, participants indicated whether a football team should punt or "go for it" on a fourth down. Participants were provided with information indicating the optimal strategy in each decision-making task. The researchers found that one third to one half of participants stuck to their intuitive strategy, even when they knew it was not strategically optimal. The researchers indicate that their findings demonstrate the presence of acquiescence and that acquiescence should be considered in dual-process models of judgment and decision making.

Healthy Out-Group Members Are Represented Psychologically as Infected In-Group Members

Michael Bang Petersen

Past research has indicated that people implicitly treat members of outgroups as if they are carrying pathogens — something that may drive prejudice toward these groups. In two studies, the researcher examined whether this link results from an evolutionary adaptation or whether it is a behavioral byproduct. In each study, participants completed a memory-confusion protocol (the "who said what?") in which they saw images of four White Americans and four people with an East Indian background. A neutral statement was paired with each pictured individual. Participants then engaged in a distractor task before completing a surprise recall test in which they had to match each statement to the person it was originally paired with. In one condition (control), all pictured individuals appeared healthy and in the other (treatment), in-group members were presented with significant facial rashes. The pattern of results indicated that healthy out-group members were represented using the same psychological category as infected in-group members — a finding that supports the view that the association between pathogens and out-group members is a by-product and not an adaptation.

Preschool Intervention Can Promote Sustained Growth in the Executive-Function Skills of Children Exhibiting Early Deficits

Tyler R. Sasser, Karen L. Bierman, Brenda Heinrichs, and Robert L. Nix

Delays and impairments in executive-functioning (EF) skills have been found to undermine school readiness, adjustment, and learning. Although preschool interventions have been shown to improve EF skills at end-of-intervention-year assessments, few studies have looked at the sustained effect of these interventions on EF development. In this study, Head Start centers were randomly assigned to provide the Head Start Research-Based, Developmentally Informed (REDI) preschool intervention or a "usual practice" control curriculum. The REDI intervention focused on teaching children how to identify and manage strong emotions and how to employ self-regulation techniques. The researchers followed the children from preschool through the third grade and assessed them for components of EF (inhibitory control, attention shifting, and working memory) and academic outcomes. The intervention had the greatest impact on children who had low levels of EF skills at the baseline assessment. The intervention helped these children maintain their EF skills through the third grade. In contrast, children with low EF skills who received the control curriculum showed marked decreases in EF after entry into kindergarten and had poorer academic outcomes than their counterparts who received the intervention.