

Research Briefs

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[People Reject Algorithms in Uncertain Decision Domains Because They Have Diminishing Sensitivity to Forecasting Error](#)

Berkeley J. Dietvorst and Soham Bharti



Psychological Science

People may be unwilling to use algorithmic decision-makers (e.g., virtual doctors, self-driving cars) in inherently uncertain domains, such as financial investing or medical decision-making. In nine studies, Dietvorst and Bharti showed that people have diminishing sensitivity to forecasting errors—they perceive “relatively large subjective differences between different magnitudes of near-perfect forecasts (the best possible forecasts that produce little to no error) and relatively small subjective differences between forecasts with greater amounts of error.” As a result, they are less likely to choose the best decision-makers in domains that are more unpredictable (e.g., with random outcomes vs. with outcomes determined by an equation) and instead tend to prefer decision-makers based on their perceived

likelihood of producing a near-perfect choice and with high variance in performance. This leads people to favor riskier and often worse-performing decision-makers, such as human judgment, in uncertain domains.

[Using Machine Learning to Generate Novel Hypotheses: Increasing Optimism About COVID-19 Makes People Less Willing to Justify Unethical Behaviors](#)

Abhishek Sheetal, Zhiyu Feng, and Krishna Savani



Psychological Science

Optimism may nudge people to avoid unethical behaviors, such as hoarding potentially scarce resources and violating social distancing during the pandemic. Sheetal and colleagues used machine learning to predict whether individuals perceived unethical behaviors as justifiable, on the basis of their answers to a survey about values. This model identified low optimism about the future of humanity as a top predictor of unethical behavior. This finding was supported by another experiment in which participants who read an optimistic scenario about COVID-19 were less willing to justify hoarding and violating social distancing than participants who read a pessimistic scenario.

[Behavioral Immune Trade-Offs: Interpersonal Value Relaxes Social Pathogen Avoidance](#)

Joshua M. Tybur, Debra Lieberman, Lei Fan, Tom R. Kupfer, and Reinout E. de Vries



Psychological Science

People may engage in infection-prone acts with people they value, such as friends and likable strangers. Three studies indicate that individuals are more comfortable with acts that can expose them to infection (e.g., touching a handkerchief someone used to blow their nose) when interacting with someone they know and like or someone they don't know but perceive as honest and agreeable than with someone they know and dislike or a stranger they perceive as dishonest or disagreeable. These findings suggest that individuals are more comfortable with exposure to pathogens from people they value, potentially leading to behavior that can help to spread infections.

[Persons as Effect Sizes](#)

James W. Grice, Eliwid Medellin, Ian Jones, et al.

Advances in Methods and Practices in Psychological Science

Grice and colleagues show how to compute and report the answer to the question “What percentage of

people in my study behaved or responded in a manner consistent with theoretical expectation?” For many studies, they show, researchers can calculate the percentage of participants who matched the theoretical expectation. This percentage essentially treats people as effect sizes, a concept that scientists, professionals, and laypersons can understand. This percentage can reveal novel patterns of data that further advance theories in psychological science.

[Cultural Dynamics for Sustainability: How Can Humanity Craft Cultures of Sustainability?](#)

Yoshihisa Kashima

Current Directions in Psychological Science

Kashima suggests that humanity faces two types of adaptation problems related to achieving sustainable development: environmental challenges of climate change and humanitarian challenges of ensuring well-being for all. As a response, Kashima proposes the development of cultures of sustainability that encourage sustainable lifestyles. One of the critical ingredients of these cultures is conversations about sustainability norms. Participation by individual citizens, along with the necessary institutional responses and multidisciplinary approaches, can drive the changes necessary to craft cultures of sustainability.

[Probabilistic Biases Meet the Bayesian Brain](#)

Nick Chater, Jian-Qiao Zhu, Jake Spicer, Joakim Sundh, Pablo León-Villagr , and Adam Sanborn

Current Directions in Psychological Science

Chater and colleagues propose that the brain does not calculate probabilities but rather approximates probabilistic calculations by drawing samples from memory or mental simulation. The sampling models suggested by Chater and colleagues can explain many classic judgment and decision-making findings, including heuristics and biases such as availability, representativeness, and anchoring and adjustment. The idea that humans have a probabilistic mind based on sampling may allow for a reconciliation between the rational models of Bayesian cognitive science (suggesting that the brain can represent and perform perfect probabilistic calculations) and the apparently nonrational findings of judgment and decision-making research.

[Trait Negative Affect Interacts With Ovarian Hormones to Predict Risk for Emotional Eating](#)

Megan E. Mikhail, Pamela K. Keel, S. Alexandra Burt, et al.

Clinical Psychological Science

High trait negative affect (NA) and specific ovarian hormone levels (low estradiol and high progesterone) increase the risk for emotional eating, this research suggests. Women provided saliva samples for hormone measurement and rated their NA and emotional eating daily for 45 days. Mikhail and colleagues found that women who reported NA regardless of the situation (i.e., trait NA) and had low estradiol and high progesterone were more likely to report emotional eating than others. Women

with a clinical history of binge-eating episodes saw these effects amplified.

[Does Distanced Self-Talk Facilitate Emotion Regulation Across a Range of Emotionally Intense Experiences?](#)

Ariana Orvell, Brian D. Vickers, Brittany Drake, et al.

Clinical Psychological Science

Distanced self-talk—using one’s name and non-first-person singular pronouns—appears to promote emotion regulation when people reflect on past and future negative experiences that vary in emotional intensity. Participants reflected on negative experiences using distanced self-talk (e.g., “Why are you feeling this way, [Name]?”) or immersed talk (e.g., “Why am I feeling this way?”). Compared to participants who used immersed talk, those who used distanced self-talk felt less negatively regardless of the type of negative experience (e.g., health, financial issues), the emotion involved (e.g., anger, frustration), and whether the experience had already occurred or could occur in the future.

[Shifting Minds: A Quantitative Reappraisal of Cognitive-Intervention Research](#)

David Moreau

Perspectives on Psychological Science

Moreau shows that cognitive interventions in the areas of brain training, video gaming, mindset, and stereotype threat might not effectively improve individual performance. He provides a quantitative reappraisal of the findings summarized in recent meta-analyses and shows that the effect-size distributions in these areas are best explained by multimodal characteristics that are not common in psychology. As a result, the characteristics of the effect sizes in cognitive-intervention research are largely unexplained by current theoretical frameworks. Thus, he argues for constructive skepticism in evaluating claims of cognitive improvement after cognitive interventions and for caution when this research influences large-scale policies.