New Research in *Psychological Science*

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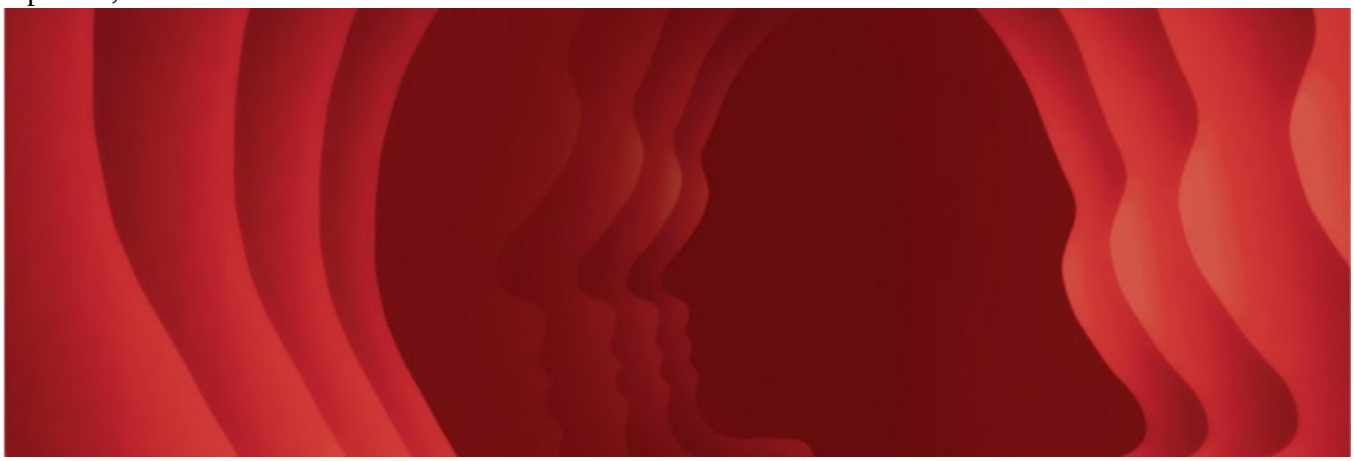

Strength of Belief Guides Information Foraging
David A. Illingworth and Rick P. Thomas

This research suggests that people's beliefs and the strength of those beliefs guide the sources they seek out for additional information when making decisions. While playing a medical-diagnosis game, participants learned about diseases and symptoms via different medical tests. During the learning phase, participants also created disease hypotheses whose strength could later be biased by the symptoms' presentations. Later, they decided which test they wanted to use to diagnose patients. Results indicated that participants' medical test choices were guided by changes in their beliefs about test hypotheses—hypothesis-guided search.

Perturbation of Right Dorsolateral Prefrontal Cortex Makes Power Holders Less Resistant to Tempting Bribes
Yang Hu et al.

Hu and colleagues used transcranial direct-current stimulation (tDCS) to induce perturbation of the right dorsolateral prefrontal cortex (rDLPFC) and investigate how that changed bribe-taking decisions. Participants performed a task in which they were power holders who decided to accept or reject financial offers, including bribes from corrupt individuals. Results indicated that perturbation of the rDLPFC via tDCS made participants more willing to accept bribes as the value of the bribe increased. Further analysis indicated that this neural modulation changed the moral cost of generating profits for oneself by taking bribes, suggesting a possible neurobiological root of corruption.

Moral Frames Are Persuasive and Moralize Attitudes; Nonmoral Frames Are Persuasive and De-Moralize Attitudes
Rabia I. Kodapanakkal, Mark J. Brandt, Christoph Kogler, and Ilja van Beest

In three studies, Kodapanakkal and colleagues used persuasion messages (moral, nonmoral, and control) that opposed new big-data technologies such as crime-surveillance technologies and hiring algorithms. The researchers then measured participants' attitude support, moral conviction, willingness to compromise, compromise behavior, perception and weighing of risks and benefits, and emotional reactions. Moral frames (e.g., "new technologies can cause harm and be used to discriminate against people") increased moralization (i.e., providing a moral basis for attitudes) and lowered willingness to compromise, whereas nonmoral frames were persuasive and demoralized people's attitudes. These findings imply that using moral frames can increase and entrench moral divides instead of bridging them.

Shuffle the Decks: Children Are Sensitive to Incidental Nonrandom Structure in a Sequential-Choice Task
Alexander D. S. Breslav et al.

Breslav and colleagues tested children (4–13 years old) in the Children's Gambling Task, an age-appropriate variant of the Iowa Gambling Task, used to understand variation in risky decision-making. They found that, contrary to what would be expected, older children performed worse than younger children—but not because they failed to learn the task structure. Instead, a subgroup of the older children identified the hidden nonrandom structure in the game, leading to sophisticated patterns of decision-making. These results illustrate that changes in decision-making across early childhood reflect, in part, increasing sensitivity to environmental structure.

Computational Methods for Predicting and Understanding Food Judgment
Natasha Gandhi, Wanling Zou, Caroline Meyer, Sudeep Bhatia, and Lukasz Walasek

Every day, people make judgments on the healthiness of different foods that influence their dietary choices and health outcomes. Gandhi and colleagues studied how food names tend to co-occur with other words and used those data to create a computational model that can predict how both lay decision-makers (the general population) and experts (dietitians) judge food healthiness. Across several studies, the researchers found that their model could predict the impact of behavioral interventions, such as the provision of nutrient and calorie information on food packaging, more accurately than models based on factual nutritional content.

Evaluating Benefits, Costs, and Social Value as Predictors of Gratitude
Daniel E. Forster, Eric J. Pedersen, Michael E. McCullough, and Debra Lieberman

Forster and colleagues examined which variables (inputs and internal representations) best account for the intensity with which people report experiencing gratitude. They tested 10 models that considered multiple variables, including the magnitude of benefits to beneficiaries, the magnitude of costs incurred by benefactors, the degree to which beneficiaries perceive that benefactors value their welfare, and beneficiaries' valuation of the welfare of their benefactors. Across two studies, the only consistent

predictor of gratitude was the last variable, specifically: the degree to which beneficiaries changed in how they valued benefactors because of the benefactors' actions. The researchers suggest that this link between social valuation and gratitude might set the stage for cooperation.

Who's the "Real" Victim? How Victim Framing Shapes Attitudes Toward Sexual Assault
Stephen J. Flusberg, James van der Vord, Sarah Q. Husney, and Kevin J. Holmes

Flusberg and colleagues investigated the effects of "victim framing" across four experiments. Participants read a report about an alleged sexual assault that either framed the female accuser as the victim of the assault, framed the male alleged perpetrator as the victim of false accusations, or was neutral about victimhood (baseline). Relative to those in the baseline condition, participants in the assault- and allegation-victim conditions generally expressed more support for either the female or male victim-framed protagonist, especially when they reported that victim-related language influenced their evaluations. These findings suggest that the way people talk about sexual assault can shape how others view it.

The Cognition/Metacognition Trade-off
David Rosenbaum, Moshe Glickman, Stephen M. Fleming, and Marius Usher

Rosenbaum and colleagues examined how decision strategy affects confidence, an aspect of metacognition (i.e., the process of monitoring and controlling one's own cognition). Participants saw a sequence of evidence and reported their choice regarding which of two distributions generated the evidence, along with their confidence in their choice, in both a free-response session (the participant's response terminated the evidence presentation) and an interrogation session (fixed number of evidence samples). Interrogation sessions prevented integration to boundary—an optimal decision algorithm that accumulates evidence until a decision boundary (i.e., a criterion for choice). Although this strategy cost more in performance, it resulted in enhanced metacognitive accuracy. Free-response sessions resulted in integration to boundary, optimizing performance but resulting in a trade-off between cognitive and metacognitive performance.

An Emphasis on Brilliance Fosters Masculinity-Contest Cultures
Andrea C. Vial, Melis Muradoglu, George E. Newman, and Andrei Cimpian

Across three studies involving lay participants online and academics from more than 30 disciplines, Vial and colleagues found that the perception that a field or an organization values brilliance is associated with the perception that this field or organization is characterized by a masculinity-contest culture (i.e., an organizational environment of ruthless competition). In turn, perceiving a masculinity-contest culture predicted lower interest and sense of belonging as well as stronger impostor feelings among women. Experimentally reducing the perception of a masculinity-contest culture eliminated gender gaps in interest and belonging to a brilliance-oriented organization, suggesting possible avenues for intervention.

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