# **Research Briefs**

#### June 30, 2022



# Learning About the Self: Motives for Coherence and Positivity Constrain Learning From Self-Relevant Social Feedback



People learn about themselves from social feedback, but desires for coherence and positivity constrain how they incorporate feedback into their self-concepts, this research suggests. Participants evaluated themselves on a network of personality traits while receiving both positive and negative social feedback from other people. Overall, participants adjusted their self-views according to others' feedback but disproportionately incorporated positive feedback more than negative feedback. They also resisted changing their self-views of traits with more perceived implications for the rest of their personality, which may help to preserve one's sense of coherence. However, people with worse mental health and well-being incorporated less positive than negative feedback, indicating that mental health might relate to asymmetrical self-learning.

# <u>A Community-Embedded Implementation Model for Mental-Health</u> Interventions: Reaching the Hardest to Reach

## Eve S. Puffer and David Ayuku

Perspectives on Psychological Science

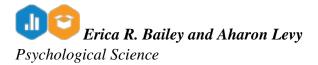
The mental-health-care treatment gap remains large in low-resource communities. Puffer and Ayuku propose an implementation model—the community-embedded model (CEM)—to expand access to care and address the burden of mental-health disorders. Key elements of the CEM include (a) an existing, community-based social setting; (b) prevention and treatment approaches delivered in tandem; (c) multiproblem interventions; (d) treatment by providers within the social setting; and (e) an emphasis on facilitating relationships between community settings and external systems of care. The authors use a case study to illustrate the application of the CEM within the social setting of religious congregations in Kenya.

## Melting Ice With Your Mind: Representational Momentum for Physical States



How does the mind represent changes of state, such as the melting of ice? Hafri and colleagues explored *representational momentum*—how memory extrapolates the spatial positions of moving objects—to investigate mental representations of state. Participants who viewed objects undergoing state changes (e.g., ice melting, logs burning, grapes shriveling) remembered them as more changed (melted, burned, or shriveled) than they actually were. Thus, memory distorted these state changes forward in time, indicating that mental representations of objects actively incorporate how they change—not only in their relation to their environment but also in their essential qualities.

# Are You for Real? Perceptions of Authenticity Are Systematically Biased and Not Accurate



This research suggests that people may not be able to accurately identify who is authentic—defined as someone whose behavior is genuine and reflects their true inner qualities and feelings. Bailey and Levy's findings indicate that laypeople report authenticity as an important attribute in others and appear to believe they can tell who is authentic. However, in two cohorts of adults, self- and other-rated authenticity did not appear to be correlated. Perceived authenticity appeared biased in two ways: Others

rated individuals' authenticity as higher than the individuals had rated it themselves, and authenticity ratings depended on raters' perceptions of their own authenticity. The researchers also found that individuals' beliefs about the visibility of their own authenticity were not accurate.

**Solène Le Bars et al.** Psychological Science

## Motor Coordination and Strategic Cooperation in Joint Action

Le Bars and colleagues investigated the relationships between sense of agency (the experience of control over an action) and the motor and strategic dimensions involved in joint action. Pairs of participants coordinated their actions to move a cursor and reach a target. The collaborative task combined different levels of motor noise (random deviations applied to the cursor's moves) with different levels of strategic noise (three types of economic games). After each trial, participants rated their sense of agency. Self-agency was related to motor dimensions, whereas collective agency was influenced by the strategic dimension. Moreover, participants who exerted dominant motor control over joint action showed less prosocial strategies (i.e., more selfish behaviors).

# <u>When Are Similar Individuals a Group? Early Reasoning About Similarity</u> <u>and In-Group Support</u>

Lin Bian and Renée Baillargeon Psychological Science

This research suggests that young children's interpretation of similarity as marking belongingness is sensitive to context. In two experiments, 12-month-old children's looking behavior indicated that they expected two individuals who wore the same novel outfit to prefer their in-group, but they seemed to dismiss this similarity when the outfits were used to fulfill an instrumental purpose (e.g., wearing something with pockets to store objects). In another experiment, 26-month-old children expected in-group preference between two individuals who uttered the same novel labels to convey categorical information about group belongingness (e.g., "I am a lutak!"), but they dismissed this similarity if the labels were used to convey incidental information (e.g., "I saw a lutak!").

Development of Visual Memory Capacity Following Early-Onset and Extended Blindness

**Priti Gupta et al.** Psychological Science Gupta and colleagues studied whether visual memory capacity can develop in congenitally blind individuals after sight surgery. The researchers used an image-memorization task to longitudinally evaluate the visual memory of 12 congenitally blind individuals ranging in age from 8 to 22 years. Results indicated poor visual memory capacity soon after surgery but significant improvement in subsequent months, with performance 1 year after surgery comparable to that of control participants with matched visual acuity. These findings provide evidence for the plasticity of visual memory mechanisms into late childhood but do not rule out vulnerability to early deprivation of sight.

## <u>Connectivity Patterns Evoked by Fearful Faces Demonstrate Reduced</u> <u>Flexibility Across a Shared Dimension of Adolescent Anxiety and Depression</u>

## Nicholas A. Hubbard et al.

#### Clinical Psychological Science

Hubbard and colleagues used functional MRI to investigate the neurobiological processes underlying how people with anxiety and depression prioritize processing negative emotional information. Adolescents with or without symptoms of depression or anxiety were cued to attend to or ignore emotional faces. In participants with anxious and depressive symptoms, the connectivity patterns did not change much from conditions in which they needed to ignore fearful faces to conditions in which they needed to attend to them. The patterns changed when they were ignoring or attending to happy, sad, or neutral faces. These findings suggest a failure to flexibly adapt in the presence of negative emotional information, which may reflect a common neurobiological mechanism in anxiety and depression.

## Does Objectively Measured Social-Media or Smartphone Use Predict Depression, Anxiety, or Social Isolation Among Young Adults?

#### Craig J. R. Sewall, Tina R. Goldstein, Aidan G. C. Wright, and Daniel Rosen Clinical Psychological Science

Sewall and colleagues examined the associations between three aspects of digital-technology use (duration and frequency of smartphone use, duration of social-media use) and three aspects of psychological distress (depression, anxiety, and social isolation) among a sample of young adults. They found that most relationships between digital-technology use and psychological distress were statistically nonsignificant, and all effects were very small and unlikely to register a meaningful impact on a person's psychological distress. In post hoc subgroup analyses, the researchers found scant evidence for common claims that digital-technology use is more harmful to women and younger people.

## Systemic Challenges in Internship Training for Health-Service-Psychology: A Call to Action From Trainee Stakeholders

#### **R. Palitsky et al.** Clinical Psychological Science

In this article, 23 trainees across different sites and specializations use lessons learned from COVID-19 as a call to action in health-service-psychology (HSP) training. The training challenges they observed during COVID-19 made existing systemic and philosophical issues even more salient. Historically, trainee voices have been absent from the literature on clinical training, Palitsky and colleagues report. The authors describe long-standing dilemmas in HSP training that will continue to require resolution after the pandemic has subsided, and they recommend systems-level changes that would advance equity and sustainability in HSP training.

# Gray-Matter Morphometry of Internalizing-Symptom Dimensions During Adolescence

## Harry R. Smolker, Hannah R. Snyder, Benjamin L. Hankin, and Marie T. Banich Clinical Psychological Science

Smolker and colleagues used structural MRI to identify the neuroanatomical correlates of four dimensions of internalizing psychopathology symptoms in adolescents: a common internalizing dimension capturing symptoms across internalizing disorders, a low-positive-affect-specific dimension, an anxious-arousal-specific dimension, and an anxious-apprehension-specific dimension. Results suggested that these dimensions are associated with neuroanatomy across much of the brain, including in the prefrontal and limbic regions and regions supporting visual processing. The results differed between males and females in regions that are sexually dimorphic in adulthood. These findings may shed light on neurodevelopmental processes that make adolescence a critical period for the trajectory of mental illness.

## Formal Innovations in Clinical Cognitive Science and Assessment

## Richard W. J. Neufeld and Matthew J. Shanahan

Current Directions in Psychological Science

Neufeld and Shanahan describe the innovations that mathematical modeling can bring to clinical cognitive science. They argue that mathematical modeling is essential for detecting certain effects of psychopathology through understanding cognitive variables (e.g., workload capacity) and the differences among these variables. The authors use the example of a cognitive abnormality in schizophrenia—taking longer to cognitively represent encountered stimuli—to illustrate a general quantitative framework for studying intricate phenomena that impair mental health. They also suggest that developments in mathematical modeling will improve symptom description and prediction and help to develop new methods of clinical assessment.

# Models of Identity Signaling

## Paul E. Smaldino

#### Current Directions in Psychological Science

Identity signals inform receivers of a signaler's group belongingness, and in doing so shape cooperation, conflict, and social learning. Smaldino argues that formal mathematical and computational models can aid in understanding the use and consequences of identity signaling. The author reviews some formal models of identity signaling and divides them into two categories: (a) models used to study how identity functions as a signal, with a focus on public-health-related behavior and disease transmission, and (b) models used to understand how identity signals operate strategically in different social environments, with a focus on covert, or encrypted, communication.

## Gender Prototypes Shape Perceptions of and Responses to Sexual Harassment

## Cheryl R. Kaiser, Bryn Bandt-Law, Nathan N. Cheek, and Rebecca Schachtman Current Directions in Psychological Science

Kaiser and colleagues provide a model describing how the narrow prototype of women as having conventionally feminine attributes and identities serves as a barrier to perceiving sexual harassment and appropriately responding to sexual-harassment claims among victims who do not resemble this prototype. They review research documenting that the conventional prototype overlaps with mental representations of sexual-harassment targets and harms women who diverge from it. When these women experience harassment, they are less likely to be perceived as victims and tend to experience more negative interpersonal, organizational, and legal consequences.

# Are We in Time? How Predictive Coding and Dynamical Systems Explain Musical Synchrony

### Caroline Palmer and Alexander P. Demos

Current Directions in Psychological Science

Humans tend to anticipate events when they synchronize their actions with sound (e.g., when they clap to music). Palmer and Demos review two theoretical mechanisms for synchrony: predictive coding (PC) and dynamical systems (DS). Both theories rely on the interconnection between excitatory and inhibitory neurons, but they differ in their organizational architecture and in the role they attribute to time. Palmer and Demos contrast assumptions, computations, and musical applications to anticipatory synchronization in PC and DS models.

## Taking Stock and Moving Forward: A Personalized Perspective on Mixed Emotions

## Melody M. Moore and Elizabeth A. Martin

#### Perspectives on Psychological Science

Moore and Martin provide an overview of the literature on mixed emotions and discuss factors contributing to the lack of integration within and between fields. They propose an organizing framework for the literature on the basis of two goals: solving the bipolar–bivariate debate (identifying whether positive and negative emotion are bipolar endpoints of a single-valence dimension or separate dimensions) and understanding the subjective experience of mixed emotions. They present an individual-focused, personalized perspective that can be used when studying the subjective experience of mixed emotions and emphasize the importance of assessing both state and trait emotions as well as contexts.

# Toward a New Science of Psychedelic Social Psychology: The Effects of MDMA (Ecstasy) on Social Connection

### Sonja Lyubomirsky

Perspectives on Psychological Science

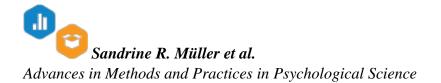
Lyubomirsky proposes that social psychologists have much to gain by incorporating psychoactive substances into their research programs. She uses MDMA, a manmade stimulant and psychedelic drug that is currently illegal, as an example. MDMA allows investigators to isolate the psychological mechanisms—and brain pathways—underlying felt social connection and thus to reveal what should be targeted in future (nondrug) studies. Lyubomirsky introduces a conceptual model that presents psychological mechanisms that MDMA stimulates (lowered fear, increased sociability, more chemistry), as well as its potential long-term impacts (improved relationships, reduced loneliness, stronger therapeutic alliances). She discusses promising research areas for building a new science of psychedelic social psychology that ultimately might inform interventions to directly improve people's lives.

## Well-Being Science for Teaching and the General Public

### William Tov, Derrick Wirtz, Kostadin Kushlev, Robert Biswas-Diener, and Ed Diener Perspectives on Psychological Science

Tov and colleagues present an overview of eight findings from well-being research that they believe teachers and authors should consider when covering well-being in the classroom and in material for the public in general. These findings include the benefits of well-being, cultural and societal diversity in well-being, processes such as adaptation, and influences such as income. They also explore the prevalence of these topics in 15 of the most popular introductory psychology textbooks. Nearly all discussed some of these topics, such as social relationships and well-being, but there was less frequent coverage of other topics, including the impact of culture and society.

## Analyzing GPS Data for Psychological Research: A Tutorial



In this tutorial, Müller and colleagues provide a practical guide to analyzing GPS data in R and introduce researchers to key procedures and resources for conducting spatial analytics. They show readers how to clean GPS data, compute mobility features (e.g., time spent at home, number of unique places visited), and visualize locations and movement patterns. They also discuss the challenges of ensuring participant privacy and interpreting the psychological implications of mobility behaviors. The tutorial is accompanied by an R Markdown script and a simulated GPS data set available at https://osf.io/2d5ep.

Four Internal Inconsistencies in Tversky and Kahneman's (1992) Cumulative Prospect Theory Article: A Case Study in Ambiguous Theoretical Scope and Ambiguous Parsimony

# *Michel Regenwetter, Maria M. Robinson, and Cihang Wang* Advances in Methods and Practices in Psychological Science

Regenwetter and colleagues advocate for accelerating scientific discovery by investing more effort in overtly specifying and painstakingly delineating the intended purview of any proposed new theory at the time of its inception. They consider Tversky and Kahneman (1992) as a case study, indicating that the reported findings provide evidence that at least half of their participants violated the authors' proposed cumulative prospect theory. Regenwetter and colleagues highlight conflicting findings in the original article that make it difficult to evaluate the scope and parsimony of cumulative prospect theory using the authors' own evidence. They suggest that this is illustrative of a social and behavioral research culture in which the role of theoretical scope is mostly to call existing theory into question and motivate surrogate proposals.

Feedback on this article? Email apsobserver@psychologicalscience.org or login to comment.