New Content From Current Directions in Psychological Science



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COVID-19 Prevention via the Science of Habit Formation

Allison G. Harvey, Courtney C. Armstrong, Catherine A. Callaway, Nicole B. Gumport, and Caitlin E. Gasperetti

Harvey and colleagues describe a set of strategies for forming new habits and eliminating existing habits to contain the spread of COVID-19. They highlight eight elements of habit formation that are connected to behavior-changing techniques and are important to understand and implement strategies for habit modification. These elements include: addressing incorrect beliefs, setting goals, devising an action plan, establishing contextual cues for the desirable habits, reinforcing desirable habits, repeating desirable habits, aiming for automatic repetition of the behaviors, and recognizing that change is difficult. Strategies to form new habits and eliminate existing habits can be part of a behavioral intervention to promote habit formation for preventing COVID-19.

From Objects to Unified Minds

Moshe Bar

Bar presents a framework to describe the human experience. The framework connects objects, associations, contexts, predictions, and affect via an ongoing balance between top-down and bottom-up processes (i.e., higher-order cognitive processes influencing sensorial perception and sensorial perception influencing higher-order cognitive processes, respectively). He proposes that this state of mind, influenced by the balance of top-down and bottom-up processes, orients individuals to the optimal state to meet the needs of the moment. Bar argues that dynamic yet unifying states of mind influence one's mental world to orient dispositions, tendencies, and sensitivities to the demands of specific circumstances.

Learning About the World by Learning About Images Katherine R. Storrs and Roland W. Fleming The idea that the visual system learns regularities and uses them to encode scenes and make predictions is not new, but the ability to create models reflecting that learning in the early stages of visual processing developed only recently. Neural networks can be taught to compress images and make predictions in space and time—unsupervised deep learning—and thus learn statistical regularities of the images, which reflect processes in the complex real world. Unsupervised deep learning can provide a framework for how the world is processed in the visual cortex, Storrs and Fleming suggest.

Reconciling Loss Aversion and Gain Seeking in Judged Emotions Barbara A. Mellers, Siyuan Yin, and Jonathan Z. Berman

Mellers and colleagues propose a new approach to reconcile loss aversion and gain seeking. By using emotional reactions to a reference point, a positive change, and a negative change, this approach identifies when loss aversion and gain seeking might occur. When the reference point is pleasurable, loss aversion is more likely to occur, but when the reference point is painful, gain seeking is more likely. These results can be explained by a reference-dependent version of prospect theory—a model for how people's decisions are based on expected utility rather than absolute outcomes.

The Fetal Origins of Human Psychological Development

Vincent M. Reid and Kirsty Dunn

New developments in obstetrics, medical physics, and psychology may lead to more opportunities to study the human fetus. Fetal capacity historically has been difficult to assess, and fetal behavior has been difficult to experimentally manipulate. Reid and Dunn review new approaches that allow for the study of the development of cognitive and perceptual human abilities as early as in the fetal state. These approaches include experimental ultrasounds to measure the effects of experimental manipulation, magnetoencephalography to study perception, eye movements to measure attention, heart rate to test discrimination of changes in the environment, and postnatal assessment of prenatal learning.

<u>Guiding the Emotion in Emotional Memories: The Role of the Dorsomedial Prefrontal Cortex</u> Elizabeth A. Kensinger and Jaclyn H. Ford

Kensinger and Ford propose that the dorsomedial prefrontal cortex (dmPFC), a brain region associated with both socio-affective and cognitive domains, plays a key role in the distinction of the affective tone and framing of emotional memories. The researchers review the role the dmPFC plays in controlling behaviors, abstracting meaning from events, and controlling emotional memories. The dmPFC appears to be involved in the encoding, stabilization, and retrieval of emotional experiences, contributing to the integration of affective and cognitive components of memories and framing memories in ways that emphasize or de-emphasize the emotional content.

<u>The Privacy Mismatch: Evolved Intuitions in a Digital World</u> *Azim Shariff, Joe Green, and William Jettinghoff*

People tend to be very concerned about their online privacy but do little to protect it. Shariff and colleagues propose that this privacy paradox is in part a consequence of an evolutionary mismatch: Human privacy intuitions evolved in a world fundamentally different from the digital world. This mismatch leaves people disconnected from the consequences of online privacy threats. Specifically, the

switch from face-to-face to digital interactions stripped the environment of many of the cues required to trigger people's intuitions about privacy violations. Shariff and colleagues outline a functionalist approach to privacy that may foster more psychological research about this important topic.

<u>The Role of Parent Educational Attainment in Parenting and Children's Development</u> Pamela E. Davis-Kean, Lauren A. Tighe, and Nicholas E. Waters

Davis-Kean and colleagues provide a model that has guided their approach to studying the influences of parents' socioeconomic status on children's academic outcomes and educational inequalities across generations. The authors posit that parents' educational attainment provides a foundation that supports children's academic success through beliefs about and expectations for their children, as well as cognitive stimulation that parents provide in and outside of the home environment. The researchers also consider the relationship between parents' education and family income and how interventions that focus on both parents' educational attainment and social and financial support might improve families' long-term outcomes.

Shared Reality: From Sharing-Is-Believing to Merging Minds E. Tory Higgins, Maya Rossignac-Milon, and Gerald Echterhoff

Shared reality—the perceived commonality of feelings, beliefs, and concerns about the world between yourself and other people—establishes a sense of social connection and understanding of the world. Higgins and colleagues review evidence for sharing-is-believing, a building block for shared reality, and for a generalized shared reality about the world at large. Sharing-is-believing allows communicators to align their descriptions and attitudes, which shapes their memory, and generalized shared reality promotes interpersonal closeness and certainty about beliefs about knowing. Higgins and colleagues also discuss the potential for shared relevance, another form of shared reality that bridges contrasting realities.