

# New Content From *Current Directions in Psychological Science*

September 27, 2021



## [Decomposing the Motivation to Exert Mental Effort](#)

*Amitai Shenhav, Mahalia Prater Fahey, and Ivan Grahek*

Achieving goals and completing tasks tend to require mental effort, something that people have varying motivation to exert. Shenhav and colleagues describe efforts to understand what determines motivation using the expected-value-of-control (EVC) model. This model simulates the process people use to weigh the costs and benefits of exerting mental effort, which, in turn, informs their motivation to exert a certain amount of mental effort. The EVC can predict different sources of variability in motivation, such as past experiences or perceptions of performance efficacy shaped by one's environment, among others.

## [Influences of Caregiving on Development: A Sensitive Period for Biological Embedding of Predictability and Safety Cues](#)

*Dylan G. Gee and Emily M. Cohodes*

Gee and Cohodes present evidence for a sensitive period during infancy and toddlerhood when caregiver inputs that are predictable and associated with safety may become biologically embedded, influencing the developing children's corticolimbic circuit involved in emotion regulation. The researchers propose that these early caregiver inputs make the corticolimbic circuit more receptive to later caregiver influences, including caregivers' external regulation of the child's emotions. When children experience early adversity that disrupts the predictability and safety associated with caregivers during the sensitive period, caregivers' influence on their neural and behavioral development might be diminished.

## [Neuroticism and Disorders of Emotion: A New Synthesis](#)

*David H. Barlow, Andrew J. Curreri, and Lauren S. Woodard*

Barlow and colleagues conceptualize anxiety, depressive, trauma-related, and other disorders (e.g., sexual dysfunction, borderline personality disorder) as "emotional disorders." The researchers suggest that these disorders all have dimensions related to traits and temperaments and thus propose a functional

model of emotional disorders based largely on neuroticism—the frequent negative emotionality of stressful events, a sense of uncontrollability and unpredictability. This model describes the common factors that contribute to the emergence and maintenance of emotional disorders. Barlow and colleagues describe the evidence supporting the model and suggest a treatment of emotional disorders that targets neuroticism.

### [Perception, Action, and Intrinsic Motivation in Infants' Motor-Skill Development](#)

*Daniela Corbetta*

Corbetta uses the example of infants reaching for objects to illustrate how goal-directed actions emerge from the intersection of visual and proprioceptive-tactile-motor spaces in the first months of life. This intersection begins with a casual connection between vision and action, when the infant's hand happens to contact an object (i.e., the onset of reaching). This reinforces the motor action and motivates infants to reproduce the behavior. The repetition of cycles of perception and action leads to the exploration of diverse actions and the alignment of the visual and proprioceptive-tactile-motor spaces, ultimately resulting in refined reaching patterns.

### [The Predictive Brain Must Have a Limitation in Short-Term Memory Capacity](#)

*Sabrina Trapp, Thomas Parr, Karl Friston, and Erich Schröger*

Trapp and colleagues explain how the traditional tasks used to assess short-term memory might conceal the function of short-term memory and the reason for its limited capacity. Specifically, they suggest that asking participants to retrospectively remember sensory input (words, images, or numbers) obscures the role of short-term memory in prospectively predicting future sensory input. Trapp and colleagues suggest that short-term memory's capacity is limited because humans can predict more accurately by focusing on sequences of events that are long enough to allow them to adjust their behavior but short enough to avoid requiring them to compute too many possibilities.

### [Why Empathy Is Not a Reliable Source of Information in Moral Decision Making](#)

*Jean Decety*

Empathy—the affective response that stems from the comprehension of another person's emotional state—increases the likelihood of showing compassion for other people but might not be a good guide for moral judgment. Decety integrates psychology, evolution theory, behavioral economics, and social neuroscience to explain how social and situational factors can affect empathy, potentially undermining the reliability of empathy-based decision making. For example, empathy can encourage overvaluing some people and ignoring others. Thus, reasoning and perspective-taking might be essential for evaluating emotional responses that may guide moral decisions.

### [Individual Differences in the Intensity and Consistency of Attention](#)

*Nash Unsworth and Ashley L. Miller*

Unsworth and Miller suggest that attention intensity (the amount of attention allocated to a task) and attention consistency (how consistently attention is allocated to a task) are important aspects for how attentional abilities vary among people. They review evidence for how intensity and consistency are related to each other and influence task performance. They also show how several factors, such as

arousal or motivation, can lead to variations in intensity and consistency, which, in turn, help to explain variation in working memory, learning, and control.