New Content From Current Directions in Psychological Science

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<u>A Developmental-Science Perspective on Social Inequality</u> Laura Elenbaas, Michael T. Rizzo, and Melanie Killen

What do we know about children's and adolescents' awareness, beliefs, and behavior regarding social inequalities? Elenbaas and colleagues use a social reasoning developmental (SRD) model to describe when, in our development, we become aware of social inequalities, how children and adolescents generate explanations for those inequalities, and how that reasoning informs what they think should be done to address inequality. Research indicates that children's concerns for fairness emerge early and allow them to identify and try to correct inequality. Elenbaas and colleagues suggest that continued investigation in this area may help to foster a more just society.

How Can Cognitive-Science Research Help Improve Education? The Case of Comparing Multiple Strategies to Improve Mathematics Learning and Teaching Bethany Rittle-Johnson, Jon R. Star, and Kelley Durkin

Comparing different strategies for solving similar problems appears to improve mathematics learning. Rittle-Johnson and colleagues identify what, when, and how comparisons might be the most efficient to foster learning. Students can compare multiple correct strategies, confusable problems, and correct and incorrect strategies. Comparisons used early in the learning process might be challenging, but delaying their use might not produce the desired procedure flexibility. Comparisons can be more beneficial when they are supported (e.g., with side-by-side visual presentation). The authors developed materials based on these findings and disseminated them among teachers and policymakers to help to apply science to practice.

Examining the Role of General Cognitive Skills in Language Processing: A Window Into Complex Cognition

Kara D. Federmeier, Suzanne R. Jongman, and Jakub M. Szewczy

Federmeier and colleagues discuss the relationship between general cognitive skills and the ability to produce and comprehend language. Research has linked domain-general processes such as attentional allocation, conflict monitoring, inhibition, long-term memory access, and working memory updating to language tasks such as picture naming or sentence reading. Behavioral and neuropsychological evidence supports this connection, as language processing requires the ability to plan ahead, activate information, select relevant information, and continuously monitor and update incoming information (i.e., from sounds to sentences). Thus, it may be possible to establish links between language and other complex cognitive domains.

Why Facts Are Not Enough: Understanding and Managing the Motivated Rejection of Science Matthew J. Hornsey

The public in general can deny the validity of scientific findings (e.g., climate change, vaccination). Hornsey suggests that motivated reasoning might explain why it is so difficult to change scienceskeptical attitudes—that is, if people are motivated to hold a belief, they selectively interpret evidence that reinforces their belief. He proposes that scientific communication might be more effective if it relies on understanding six reasons and motivations for science-skepticism: ideologies, vested interests, conspiracist worldviews, fears and phobias, personal-identity expression, and social-identity needs.

Improving Eyewitness-Identification Evidence Through Double-Blind Lineup Administration Margaret Bull Kovera and Andrew J. Evelo

The best practice for presenting lineups and photo arrays to witnesses is having a police officer who does not know the identity of the suspect. This double-blind administration, in contrast to the usual single-blind administration in which the officer knows who the suspect is, appears to diminish biases against suspects and reduce the wrong identification of innocent suspects. Research has shown that nonblind officers are more likely than blind officers to give away cues that guide witnesses to choose actual suspects and to give confirmatory feedback to witnesses who choose the suspect, inflating their confidence.

From Stress to Depression: Bringing Together Cognitive and Biological Science Joelle LeMoult

LeMoult proposes that examining how cognitive and biological responses to stressors influence each other can contribute to the understanding of depression and help to reduce its prevalence and costs. LeMoult suggests an integrated approach that takes into account cognitive reactivity (i.e., cognitive control, cognitive biases, and emotion regulation) and biological reactivity (neural, neuroendocrine, autonomic, and inflammatory) and how these responses to stress exposure contribute to depression. These responses are also associated with one another, which can create a downward spiral of increasingly maladaptive responses to stress and greater depression.