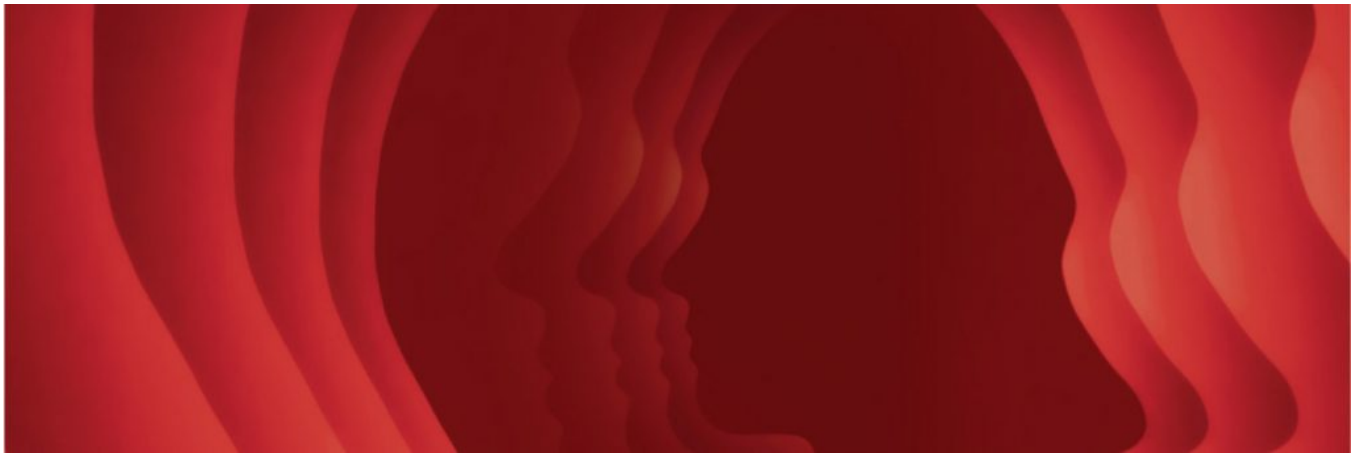
New Research in *Psychological Science*

November 30, 2022



Testing Deprivation and Threat: A Preregistered Network Analysis of the Dimensions of Early Adversity
Sofia Carozza, Joni Holmes, and Duncan E. Astle

How can psychological science enhance efforts to protect children from the effects of adversity? One promising approach involves disentangling threat (which is thought to interfere with emotional regulation) from deprivation (which may constrain cognitive development). To assess how threat and deprivation affect children's development, Carozza and colleagues analyzed the links between childhood adversity and adolescent cognition and emotional functioning and identified the timeline of these effects (i.e., relationships between age of exposure and later outcomes). Their results suggest that deprivation and threat are separate dimensions of adversity and that early experiences of deprivation are linked with cognition and emotional functioning later in life. These links vary by age of exposure. Results did not find specific links between threat and emotional functioning.

Two-Year-Olds' Eye Movements Reflect Confidence in Their Understanding of Words
Isabelle Dautriche, Louise Goupil, Kenny Smith, and Hugh Rabagliati

The capacity of realizing what one knows and does not know might exist before children are old enough to talk about it. In two experiments, 2-year-olds saw two objects and heard the name of one; afterward, Dautrich and colleagues asked the children to look toward the named object. When the children were familiar with the name used (e.g., dog), they looked more persistently after a correct look at the named object than after an incorrect look at the other object—a marker of confidence. They demonstrated less confidence when the named object was unfamiliar (e.g., toma) or the person naming the objects was

unreliable (i.e., someone who named familiar objects using incorrect labels, such as calling a ball a "dog").

Cognitive Change Before Old Age (11 to 70) Predicts Cognitive Change During Old Age (70 to 82)
Federica P. Conte et al.

Conte and colleagues examined how cognitive change from ages 11 to 70 is associated with cognitive change at older ages (from 70 to 82 years). They used data from a large longitudinal study of cognitive, brain, and general aging of participants who were born in 1936 and assessed throughout their lives General cognitive ability (g) accounted for 71.3% of the differences in change between participants. Greater cognitive gain from ages 11 to 70 predicted slower decline in g from 70 to 82 years, independently of cognitive level in childhood and at age 70 and of domain-specific change (i.e., in visuospatial, memory, or processing speed) beyond g.

Flavor Sensing in Utero and Emerging Discriminative Behaviors in the Human Fetus
Beyza Ustun, Nadja Reissland, Judith Covey, Benoist Schaal, and Jacqueline Blissett

Fetuses react with different facial expressions to different flavors of the foods their mothers eat, this research suggests. Ustun and colleagues used 4D ultrasound scans at 32 and 36 weeks' gestation to examine fetuses' reactions after their mothers swallowed a vegetable capsule of either carrot or kale. When the fetuses were exposed to carrot flavor, they were more likely to show "laughter-face" reactions, and when they were exposed to kale flavor, they were more likely to show "cry-face" reactions. The researchers also found that facial responses to flavors became more complex as fetuses matured.

What You See Is What You Hear: Sounds Alter the Contents of Visual Perception
Jamal R. Williams, Yuri A. Markov, Natalia A. Tiurina, and Viola S. Störmer

What people hear impacts how they perceive the visual world, this research suggests. Using a task in which ambiguous images (e.g., an image that could be a cat or a kettle) were paired with naturalistic sounds, Williams and colleagues found that participants' representations of the images shifted toward the visual features of the object related to the sound (e.g., they were more likely to perceive the same image as a cat if they heard a meow or as a kettle if they heard a whistle). These effects were driven by continuous integration of audiovisual inputs during perception itself rather than decision or response biases or expectations.

Parents' Political Ideology Predicts How Their Children Punish
Rachel A. Leshin, Daniel A. Yudkin, Jay J. Van Bavel, Lily Kunkel, and Marjorie Rhodes

Parents' political ideology appears to predict their children's punishment behavior—that is, their

willingness to pay a personal cost to punish others for violations that do not affect them directly. In a study of American children ages 3?8, Leshin and colleagues found that punishment behavior varied according to their parents' political ideology—a possible proxy for the value systems transmitted to children intergenerationally. Children of conservative parents tended to punish more members of different groups and to express anger at perpetrators, whereas children of liberal parents tended to punish more members of their own group to enforce cooperative norms.

Stepping Up to the Mic: Gender Gaps in Participation in Live Question-and-Answer Sessions at Academic Conferences
Shoshana N. Jarvis, Charles R. Ebersole, Christine Q. Nguyen, Minwan Zhu, and Laura J. Kray

How does the gender difference in academia, where women are underrepresented, translate to participation in face-to-face question-and-answer (Q&A) sessions? Jarvis and colleagues examined participation in filmed conferences and found that men disproportionately participated, whereas women were less comfortable participating and more likely to fear backlash for their participation. As to why students were more likely to hold back, women cited anxiety, whereas men said they wanted to make space for others to participate. Understanding the psychological barriers impacting women's participation in Q&A might foster work toward structural changes to create a more equitable space for scientific discourse.

Placebo Analgesia Reduces Costly Prosocial Helping to Lower Another Person's Pain
Helena Hartmann, Paul A. G. Forbes, Markus Rütgen, and Claus Lamm

Taking painkillers lowers both pain empathy and helping behavior, this research suggests. Hartmann and colleagues administered a placebo painkiller to a group of participants. Compared to participants who did not take the placebo, members of this group went on to show less willingness to exert physical effort to reduce the pain of a person allegedly receiving shocks. They also used less physical effort when helping. These detrimental effects of analgesia on prosociality may have implications for social cohesion in societies in which analgesics are regularly consumed.

Walking in Her Shoes: Pretending to Be a Female Role Model Increases Young Girls' Persistence in Science
Reut Shachnai, Tamar Kushnir, and Lin Bian

Pretend play might be an effective tool to engage girls in science, this research suggests. Girls and boys ages 4 to 7 years played a challenging science activity in three different conditions. In the exposure condition, the children heard about a successful scientist who matched their gender. Children in the roleplay condition pretended to be that scientist. And children in the baseline condition did not receive

information about a scientist. Boys were highly motivated across all three conditions, completing an average of 14 rounds of the game without any intervention. Among girls, only those in the roleplay condition persisted longer in the science activity than girls in the baseline condition. Thus, pretend play as role models might motivate young girls in science and even help reduce gender gaps. (**See a related article from APS.**)

No Subliminal Memory for Spaced Repeated Images in Rapid-Serial-Visual-Presentation Streams
Howard Bowman, and Alberto Avilés

Thunell and Thorpe (2019) reported that participants could detect repetition in rapidly presented visual streams of images and later remember the repeated images. Because these effects occurred when images were presented very rapidly, they appear to suggest that the processes underlying detection of repetitions, and by extension also statistical learning, operate unconsciously. In this commentary, Bowman and Avilés analyze whether Thunell and Thorpe's findings imply that stimuli representations may last even when they do not reach awareness. They reanalyzed the original study's results and found that learning can occur only when stimuli that are not consciously perceived are repeated very rapidly. That is, when the repetitions are more spaced, representations do not accumulate unconsciously and thus do not cause learning. These findings suggest that in a real-world setting, conscious awareness is needed to learn episodic, incidental information.

Opportunity Neglect: An Aversion to Low-Probability Gains
Emily Prinsloo, Kate Barasz, Leslie K. John, and Michael I. Norton

Opportunity neglect may occur when people forgo low-probability opportunities (e.g., applying to a highly prestigious company or university) even in the absence of objective costs (e.g., free and quick applications). Prinsloo and colleagues show opportunity neglect in naturalistic situations, including applying for jobs and winning consumer products, and in gambles for both goods and money with positive expected value, even with no possibility of monetary loss and nontrivial rewards (e.g., a 1% chance at $99). One way to reduce opportunity neglect is to remind people that they have nothing to lose—highlighting that rejecting an opportunity is equivalent to choosing a zero probability of success.

Feedback on this article? Email apsobserver@psychologicalscience.org or login to comment.
Interested in writing for us? Read our contributor guidelines.