

New Research in *Psychological Science*

September 17, 2020



[Reward Enhances Pain Discrimination in Humans](#)

Susanne Becker, Martin Löffler, and Ben Seymour

Monetary rewards may boost individuals' ability to discern changes in pain levels. Participants received painful thermal stimulation to their thumbs and indicated whether they felt changes throughout different periods of stimulation. Immediately or shortly after a correct response, participants either received a monetary reward or no reward at all. Rewards enhanced participants' ability to discriminate increases in the painful stimulus, especially when the rewards came immediately after their responses (i.e., when reward was contingent on performance). Thus, although rewards might inhibit pain in some circumstances, they can also facilitate pain discrimination when important.

[Delay of Gratification as Reputation Management](#)

Fengling Ma, Dan Zeng, Fen Xu, Brian J. Compton, and Gail D. Heyman



Consequences for one's reputation and the identity of potential evaluators may influence how long one decides to wait for a large reward—delay of gratification. In two studies, 3- and 4-year-old children chose between receiving one sticker immediately or two stickers if they waited 15 minutes without playing with the stickers. Children waited the longest when they were told a teacher would find out how long they waited, followed by when they were told a peer would find out how long they waited. They waited the shortest time when only the experimenter would know how long they waited.

[Disentangling Social-Genetic From Rearing-Environment Effects for Alcohol Use Disorder Using Swedish National Data](#)

Jessica E. Salvatore, Sara Larsson Lönn, Jan Sundquist, Kristina Sundquist, and Kenneth S. Kendler

A spouse's rearing environment may impact one's risk of developing alcohol use disorder (AUD). Salvatore and colleagues analyzed data from more than 300,000 couples in Sweden and found that those

married to a spouse with a parental history of AUD were more likely to develop AUD. This increased risk was not explained by the couple's socioeconomic status, the spouse's AUD status, or contact with the spouse's parents. Instead, it reflected the psychological consequences of the spouse having grown up with an AUD-affected parent.

[Changing Social Contexts to Foster Equity in College Science Courses: An Ecological-Belonging Intervention](#)

Kevin R. Binning, Nancy Kaufmann, Erica M. McGreevy, et al.



Interventions to make stereotypes irrelevant in the classroom might contribute to student success. Students who participated in classroom interventions in which they discussed the idea that social and academic diversity is normative had higher attendance and grades and were more likely to remain in college after the first year than students in classrooms that did not go through the interventions. The interventions had particularly positive effects among historically underperforming groups of students, such as ethnic minorities in introductory biology and women in introductory physics.

[General Enhancement of Spatial Hearing in Congenitally Blind People](#)

Ceren Battal, Valeria Occelli, Giorgia Bertonati, Federica Falagiarda, and Olivier Collignon



People with congenital blindness may have enhanced spatial hearing (i.e., the ability to localize sound sources). Participants who had lost their sight at birth or before 3 years of age were more accurate at comparing the relative position of two sound sources than participants with normal sight. These findings indicate that vision is not necessary for developing optimal spatial-hearing abilities. In contrast, a lack of vision might help to develop the ability to use auditory cues to localize sound sources.

[Finding the Pattern: On-Line Extraction of Spatial Structure During Virtual Navigation](#)

Kathryn N. Graves, James W. Antony, and Nicholas B. Turk-Browne



How quickly do we learn the spatial structure of our environments? Participants navigated a virtual water maze searching for turtle eggs whose locations followed a statistical distribution applied to the space. Within a single session, participants became increasingly successful in navigating through the places where platform locations were more likely, indicating that they rapidly summarized the spatial distribution and used this statistical knowledge to guide navigation rather than relying on their memory of the individual platform locations. Humans appear to quickly learn spatial structures, which may explain our ability to rapidly adapt to new environments.

[The Effect of Repetition on Truth Judgments Across Development](#)

Lisa K. Fazio and Carrie L. Sherry



Children and adults are both more likely to think a statement is true when they hear it repeatedly than when they hear it only once. Fazio and Sherry showed that 5-year-old children were more likely to judge false statements as true if they had heard them once before (e.g., a calf is a baby horse) than if they heard

false statements for the first time. These findings suggest that this illusory-truth effect is implicitly learned at a young age and does not require intentional reflection. Thus, repeating false information can hamper individuals' ability to distinguish truth from falsehood and facilitate the spread of misinformation.

[Effects of Selective Attention on Mean-Size Computation: Weighted Averaging and Perceptual Enlargement](#)

Yong Min Choi and Sang Chul Chong



Choi and colleagues examined the mechanisms underlying the relationship between ensemble perception (summarization of redundant information) and selective attention (prioritization of relevant information) in the visual system. Participants estimated the mean sizes of 8 objects (grids or gratings) while focusing on one of the objects. Their estimates were biased toward the size of the attended object (weighted averaging), but they also overestimated the mean sizes regardless of attended size (perceptual enlargement). These findings indicate that selective attention modulates mean-size computations, suggesting a close relationship between the two mechanisms to efficiently manage the visual system's limited capacity.