

# New Research in *Psychological Science*

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## [Prenatal Programming of Behavior Problems via Second-by-Second Infant Emotion Dynamics](#)

*Jennifer A. Somers and Linda J. Luecken*

Prenatal maternal stress may be related to fluctuations in infants' emotions and thus confer high risk for childhood behavior problems. Somers and Luecken examined whether maternal prenatal stress predicted infants' emotion processes at 24 weeks and behavior problems at 36 and 54 months. They found that the fluctuation in mean infant negative affect (e.g., anxiety, anger, irritability) was related to prenatal stress, but not to childhood behavior problems. However, prenatal stress predicted the volatility in infant negative affect during playful interaction, which in turn predicted behavior problems. These findings highlight the importance of considering the impact of parental stress and infant emotional volatility on development.

## [Perceived Distance Alters Memory for Scene Boundaries](#)

*Alon Hafri, Shreya Wadhwa, and Michael F. Bonner*



Memory is not like a video camera; instead, how a person remembers an environment depends on the spatial scale at which they view it, this research suggests. In seven experiments, Hafri and colleagues manipulated spatial scale by creating fake miniatures. To do so, they used a photographic effect that selectively reduces perceived distance while preserving other scene properties (e.g., making a distant railway appear like a model train). Fake miniaturization increased the perceived extended boundary for otherwise identical scenes: Participants who performed a scene-memory task misremembered fake-miniaturized views as farther away than they actually were.

## [Feeling Good Is Feeling Better](#)

*Alberto Prati and Claudia Senik*



People do not appear to remember their past happiness accurately. Prati and Senik analyzed data from four longitudinal surveys spanning the 1970s to the present in which more than 60,000 adults in the United States, France, the United Kingdom, and Germany evaluated their current and past life satisfaction. Happy people in the present recalled the evolution of their life to be better than it was, whereas unhappy people tended to exaggerate their life's negative evolution. It thus seems that feeling happy today simply implies feeling better than yesterday. These findings could explain why happy people are more optimistic.

See the [related news release](#).

### **Neural and Cognitive Signatures of Guilt Predict Hypocritical Blame**

*Hongbo Yu et al.*



Hypocrites blame other people for moral violations they themselves have committed, but they may actually hold the moral standards that they apply to others, this research suggests. Participants underwent functional MRI while deciding whether to profit by inflicting pain on others and then judged the blameworthiness of others' identical decisions. Those who hypocritically blamed others reported stronger feelings of moral conflict during moral decision-making, had stronger neural responses to moral standards in the lateral prefrontal cortex, and exhibited more guilt-related neurocognitive processes associated with harming others. Nevertheless, a group of observers judged them as hypocritical, immoral, and untrustworthy.

### **Early Impacts of College, Interrupted: Considering First-Year Students' Narratives About COVID and Reports of Adjustment During College Shutdowns**

*Jordan A. Booker et al.*



During college shutdowns (spring 2020), Booker and colleagues asked first-year U.S. students to provide narratives about how the COVID-19 pandemic impacted their lives. They found that participants who reported more growth (i.e., constructive reasoning from past events) also reported higher psychosocial adjustment and global identity development as well as fewer mental health concerns. One year later, these associations persisted. Growth partly explained associations between COVID stressors and students' adjustment. These findings reinforce the importance of individual meaning-making from lived experience as a critical aspect of resilience and underscore the importance of connective reasoning as people navigate chronic stress.

### **Spatial Representations Without Spatial Computations**

*Daniele Gatti, Marco Marelli, Tomaso Vecchi, and Luca Rinaldi*



How do people learn and represent geographical information? Gatti and colleagues challenge the conventional view—that visual experience is the foundation for the formation of mental maps—by showing that language can also encode and reproduce maps. They show that psychologically plausible computational models can derive geographical information from written texts alone, reproducing the spatial layout of real-world maps. In two behavioral experiments, they further found that these language-based maps reliably resemble how humans represent geographical information. These findings call into question the claim that sensorimotor experience is the key ingredient in the formation of mental maps.

### [Scientific-Consensus Communication About Contested Science: A Preregistered Meta-Analysis](#)

*Aart van Stekelenburg, Gabi Schaap, Harm Veling, Jonathan van 't Riet, and Moniek Buijzen*



Communicating scientific consensus appears to be an effective way to change factual beliefs about contested science topics. In this meta-analysis, van Stekelenburg and colleagues assessed the effects of communicating existing scientific consensus on perceived scientific consensus and belief in scientific facts. Combining 43 experiments about climate change, genetically modified food, and vaccination, they found that a single exposure to consensus messaging increased perceived scientific consensus and belief in scientific facts. Consensus communication yielded very similar effects for climate change and genetically modified food, but a low number of experiments about vaccination prevented conclusions regarding this topic.

### [Radial Bias Alters Perceived Object Orientation](#)

*Melisa Menciloglu, Ken Nakayama, and Joo-Hyun Song*

This research indicates that an early vision feature (i.e., radially oriented stimuli—aligned with a line intersecting the center of gaze—are more readily perceived) may influence the perceived orientation of objects. Participants indicated what they perceived as the gap position in a peripheral Landolt C (a broken ring). This gap had been placed in one of eight orientations and eight locations along four meridians (vertical, horizontal, 45°, 135°). The error distributions revealed that participants' perceived gap was drawn toward the radial axis. For instance, they would often wrongly perceive the gap in a regular C as tilted 45° corresponding to the oblique meridian where it was placed.

### [Racial Prejudice Predicts Police Militarization](#)

*Tyler Jimenez, Peter J. Helm, and Jamie Arndt*



Racial prejudice appears to predict police militarization, this research suggests. Jimenez and colleagues assessed the link between racial prejudice against Black and Native Americans and police militarization at the individual and regional levels. In a nationally representative sample of White Americans, they

found that those with higher levels of racial prejudice also tended to show higher support for police militarization. In addition, they found that police departments in states higher in prejudice acquired greater amounts of militarized equipment, based on their review of regional aggregates of prejudice among White Americans (from Project Implicit) and policing data (from the Defense Logistics Agency).

### [Attention Shifts to More Complex Structures With Experience](#)

*Tess Allegra Forest, Noam Siegelman, and Amy S. Finn*



What determines which information we prioritize for learning? Forest and colleagues examined whether learners direct attention toward more complicated structures as they gain more experience with an environment. Participants watched four simultaneous streams of information that varied in complexity (i.e., with simple and complex shapes). Participants' response times and eye tracking indicated that they attended to increasingly complex streams over time. Individual differences in how participants learned structures also predicted attention allocation, with better learners attending to complex structures earlier in learning, suggesting that the ability to prioritize different information over time is related to learning success.

### [The Visual Mandela Effect as Evidence for Shared and Specific False Memories Across People](#)

*Deepasri Prasad and Wilma A. Bainbridge*



The Mandela effect is a phenomenon describing consistent false memories that are shared by many people (e.g., the belief that Nelson Mandela died in the 80s). The visual Mandela effect is specific to visual icons (e.g., the Monopoly Man is falsely remembered as having a monocle). Prasad and Bainbridge tested and quantified the visual Mandela effect, showing that certain images from popular iconography elicit consistent, specific false memories. They found no attentional or visual differences that drive this phenomenon, no clear difference in the natural visual experience of these images, and that these errors also occur spontaneously during recall.

### [Shape of U: The Nonmonotonic Relationship Between Object–Location Memory and Expectedness](#)

*Jörn Alexander Quent, Andrea Greve, and Richard N. Henson*



The schema-linked interactions between medial prefrontal and medial temporal lobe (SLIMM) model predicts that people are better at remembering object locations when the expectancy of those locations is high or low. Using immersive virtual reality, Quent and colleagues presented objects in locations of varying congruency with a kitchen schema (e.g., microwave vs. helmet). The researchers found support for the SLIMM model's prediction of better memory for highly expected and highly unexpected locations relative to neutral locations. However, they did not find support for the prediction that

unexpected locations would be more associated with recollection (i.e., having a vivid memory) and expected locations would be more associated with familiarity (i.e., just knowing something rather than distinctly recalling it). Instead, both expected and unexpected locations were associated with recollection.

### **Test Anxiety Does Not Predict Exam Performance When Knowledge Is Controlled For: Strong Evidence Against the Interference Hypothesis of Test Anxiety**

*Maria Theobald, Jasmin Breitwieser, and Garvin Brod*



Test-anxious students do not appear to underperform in exams relative to their knowledge. Theobald and colleagues analyzed data from medical students who used a digital learning platform to prepare for a high-stakes exam. Results of mock exams completed shortly before the final exam indicated that test anxiety did not affect students' performance beyond their level of knowledge. However, the researchers also found that high trait test anxiety predicted smaller gains in knowledge over the exam-preparation phase. These findings suggest that test-anxiety interventions should promote effective knowledge acquisition rather than aiming to reduce test anxiety.

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