

New Research in *Psychological Science*

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[Uncertainty and Prior Assumptions, Rather Than Innate Logarithmic Encoding, Explain Nonlinear Number-to-Space Mapping](#)

Guido Marco Cicchini, Giovanni Anobile, Eleonora Chelli, Roberto Arrighi, and David C. Burr



Cicchini and colleagues asked participants to map dot arrays onto a number line (i.e., a line representing a numerosity scale). Results indicated that on their first attempt, participants compressed their mapping (insufficient reporting of larger numbers at the high end of the number line), but their mapping became more linear across nine attempts. In another experiment, participants mapped noise-perturbed color patches to a color line. This experiment supported a tendency to map toward the a priori best guess—the center of the number line—reflecting a Bayesian inference process rather than intrinsic logarithmic encoding.

[A Personal Model of Trumpery: Linguistic Deception Detection in a Real-World High-Stakes Setting](#)

Sophie Van Der Zee, Ronald Poppe, Alice Havrileck, and Aurélien Baillon



What are the language differences between truth and lies? Van Der Zee and colleagues developed a deception model to detect lies at the individual level, using the fact-checked tweets of Donald Trump. They found substantial linguistic differences between factually truthful and deceptive statements and developed a personalized language model that could predict which other statements from the former president were correct or potentially deceitful. The model outperformed existing models that do not use an individualized approach. Thus, using personalized linguistic analysis in real-world settings might help to detect lies.

[Frequent Interpersonal Stress and Inflammatory Reactivity Predict Depressive-Symptom Increases: Two Tests of the Social-Signal-Transduction Theory of Depression](#)

Annelise A. Madison et al.

According to the social-signal-transduction theory of depression, people who experience ongoing social stress that triggers an elevated inflammatory response are at higher risk for depression. Madison and colleagues found support for this theory in two studies of healthy adults and breast-cancer survivors. Participants who reported more frequent interpersonal tension, more loneliness, or less social support had higher depression symptoms one year later, especially when they also showed a higher inflammatory response (measured by blood inflammatory markers) to a laboratory social stressor the year before. These findings suggest the effectiveness of depression treatments that target social stress and inflammation.

[Physiological Responses to a Haunted-House Threat Experience: Distinct Tonic and Phasic Effects](#)

Sarah M. Tashjian, Virginia Fedrigo, Tanaz Molapour, Dean Mobbs, and Colin F. Camerer



Tashjian and colleagues continually measured the electrodermal responses of participants in a 30-min haunted-house experience that included temporally and thematically linked scares. Results indicated that unexpected scares produced more frequent and intense responses than predictable scares. The presence of friends increased fear responses, and people who had more intense responses also reported being more afraid. These findings suggest that social dynamics (e.g., the presence of friends) and subjective fear can influence fear responses and that the body responds dynamically to different features of threat experiences (e.g., predictability).

[Human Vision Reconstructs Time to Satisfy Causal Constraints](#)

Christos Bechlivanidis et al.



This research suggests that humans use active interpretations of causality to perceive order in visual events rather than just registering a sequence of visual signals. Bechlivanidis and colleagues showed participants animations in which it looked as if colored squares (A, B, and C) were colliding. However, the collided-on object (C) started moving before the collision occurred. Participants indicated that they saw events happening earlier or later than they actually did, at times compatible with causal interpretations (as if there had been indeed a collision). Participants reported the objects' order as representing the collision (i.e., A, B, and C) rather than the actual movement order (A, C, B), showing a perceptual illusion that conformed to causal inferences.

[Copy the In-group: Group Membership Trumps Perceived Reliability, Warmth, and Competence in a Social-Learning Task](#)

Marcel Montrey and Thomas R. Shultz



People appear to prefer to copy the behavior of members of their own social group (e.g., people of the same political affiliation, religion, or race) even when they have nothing in common. Montrey and Shultz told participants they belonged to different groups and measured their behaviors in an online social-learning game. Although the groups were arbitrary and identical, most participants preferred to copy their own group's members, even when they rated their group as less competent than other groups. This copying bias was supported by a preference for observing in-group members, became stronger when social information was scarce, and caused cultural divergences when the groups were mixed.

[Fighting Violent Extremism With Narrative Intervention: Evidence From a Field Experiment in West Africa](#)

Rezarta Bilali



This research suggests that storytelling may shift behaviors in contexts of violent extremism. Bilali tested the effect of a radio serial drama designed to counter tendencies to extremist violence by highlighting the detrimental consequences of such violence for the community. The intervention involved 132 villages in a region of Burkina Faso that has experienced a rise of extreme violence accompanied by mutual mistrust between the population and the police forces. Compared with people in villages that were not exposed to the narrative, those who were exposed showed reduced beliefs that violence is justifiable, increased behavioral intentions to collaborate with the police, and increased desire to prioritize addressing violent extremism.

[Scene Context Impairs Perception of Semantically Congruent Objects](#)

Eelke Spaak, Marius V. Peelen, and Floris P. de Lange



A toilet-paper roll might be more easily processed when seen in the kitchen than in the bathroom—that is, a visual scene might minimize the processing of objects that are congruent with it, compared with incongruent objects. Spaak and colleagues found support for this counterintuitive result in change detection (i.e., the disappearance of an object in a scene) and object discrimination tasks. When the object was congruent with a scene, participants' perception of the object was impaired (e.g., they took longer to notice that it was missing in a change detection task). Stimulus confounds, response biases, and search strategy did not explain these “congruency costs.”