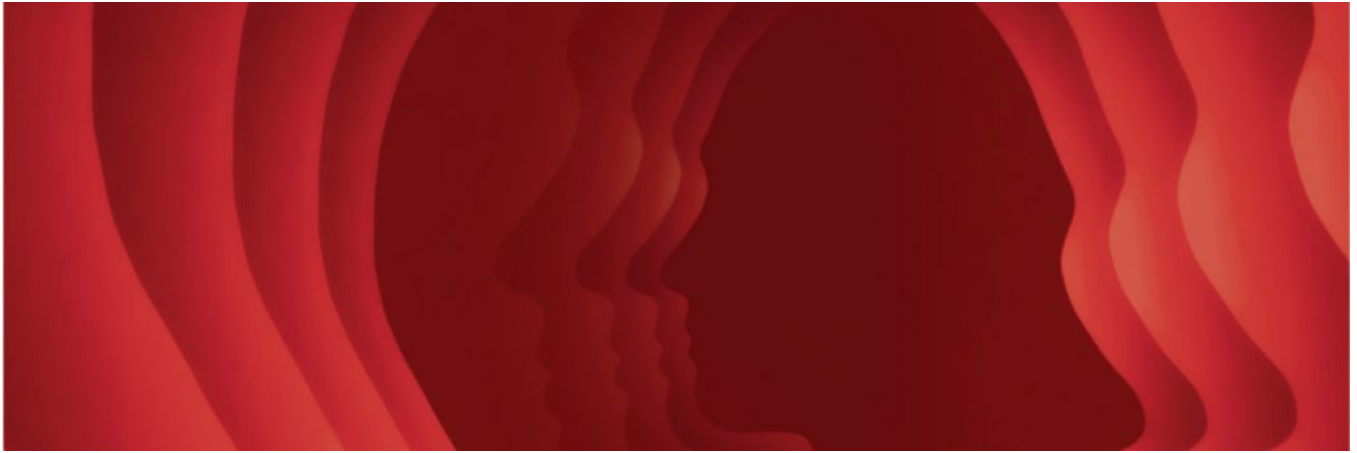


# New Research in *Psychological Science*

April 14, 2021



## [Asking People to Explain Complex Policies Does Not Increase Political Moderation: Three Preregistered Failures to Closely Replicate Fernbach, Rogers, Fox, and Sloman's \(2013\) Findings](#)

*Jarret T. Crawford and John Ruscio*



In 2013, Fernbach and colleagues found that asking people to provide explanations for complex policies can reduce their political extremism by making their lack of policy knowledge salient. In attempting to replicate these findings, Crawford and Ruscio found that participants acknowledged having less policy knowledge after they had attempted to provide mechanistic policy explanations, but their policy-position extremism and partisan in-group favoritism did not change. These findings suggest that although providing mechanistic explanations can make people aware of their ignorance, it is unlikely to increase political moderation. Moreover, the researchers replicated the finding that providing justifications for prior beliefs appears to strengthen those beliefs.

## [Unconscious Touch Perception After Disruption of the Primary Somatosensory Cortex](#)

*Tony Ro and Lua Koenig*

Transcranial magnetic stimulation (TMS) can induce a “virtual lesion” in the primary somatosensory cortex that causes “numbsense,” in which participants make accurate guesses about location on the basis of tactile information of which they have no awareness. In this experiment, the tactile information consisted of electrical pulses delivered to the index or ring fingers. Numbsense did not occur when TMS stimulated control regions. The results indicated that TMS-induced numbsense implicates a somatosensory pathway that processes location of touch in the absence of awareness and provided evidence for the importance of primary sensory cortices for conscious perception.

## [Patterns of Genital Sexual Arousal in Transgender Men](#)

*Jamie Raines et al.*

Most men who are cisgender (their personal identity and gender correspond with their birth sex) show genital sexual arousal to one preferred gender, and most cisgender women show genital arousal to both men and women. Raines and colleagues measured the sexual genital arousal of transgender men who were watching sexual videos featuring male or female models. Transgender men showed stronger genital sexual arousal in response to their preferred gender but still responded to both genders. These findings indicate that transgender men's physiological sexual arousal in part reflects a male aspect of their gender identity. These findings also suggest that in birth-assigned women, both gender identity and biological sex may influence sexual-arousal patterns.

### [The Dramatic Impact of Explicit Instruction on Learning to Read in a New Writing System](#)

*Kathleen Rastle, Clare Lally, Matthew H. Davis, and J. S. H. Taylor*



Explicitly teaching writing regularities might help learners more than letting them discover those regularities by themselves, this study suggests. Over 10 days, adults learned to read novel words printed in two artificial language systems. One group learned spelling-to-sound and spelling-to-meaning mapping through experience (i.e., by reading the novel words), and another group received explicit instruction about those regularities before reading the words. Almost all the participants who received the instruction were able to generalize the regularities in the novel words, whereas only 25% of the participants who learned through experience were able to do so.

### [Forgetting the Future: Emotion Improves Memory for Imagined Future Events in Healthy Individuals but Not Individuals With Anxiety](#)

*Nicole D. Montijn, Lotte Gerritsen, and Iris M. Engelhard*

To study how individuals with high anxiety retain negative thoughts about the future over time, Montijn and colleagues tested whether the valence (positive, negative, and neutral) of simulations of the future had different effects on how participants with high and low anxiety remembered these simulations. Participants with low anxiety were better at remembering emotional future events (positive and negative) than neutral future events. Participants with high anxiety showed poorer memory than low-anxiety participants regardless of the valence of the simulation. This difficulty in remembering emotional simulations could make individuals with anxiety less able to deal with anticipated negative scenarios.

### [Functional MRI Can Be Highly Reliable, but It Depends on What You Measure: A Commentary on Elliott et al. \(2020\)](#)

*Philip A. Kragel, Xiaochun Han, Thomas E. Kraynak, Peter J. Gianaros, and Tor D. Wager*

Elliot and colleagues (2020) evaluated the test-retest reliability of individual differences measured in task-based functional MRI (fMRI)—they found it to be poor and thus problematic for biomarker discovery. Here, Kragel and colleagues comment on Elliot and colleagues' study, drawing attention to the importance of specifying boundary conditions of Elliot and colleagues' critiques of fMRI and

avoiding overgeneralization. Kragel and colleagues suggest that poor reliability applies only to a particular subset of “common task-fMRI,” and they observe that fMRI biomarkers may not always require high test-retest reliability. They also show the importance of using multivariate measures to increase fMRI reliability.

[Need for Psychometric Theory in Neuroscience Research and Training: Reply to Kragel et al. \(2021\)](#)  
*Maxwell L. Elliott, Annchen R. Knodt, Avshalom Caspi, Terrie E. Moffitt, and Ahmad R. Hariri*

In Elliot and colleagues’ reply to Kragel and colleagues’ commentary on their article, which suggested that task-fMRI had poor reliability, they agree with the emphasis on avoiding overgeneralization but clarify how their perspective diverges. They argue that the use of multivariate measures is far from being universal in task-fMRI biomarker research and, therefore, that considering these measures does not show the current reality of task-fMRI. They also clarify that their main concern was whether commonly used measures of task-fMRI activation are reliable enough for individual-differences research and brain biomarkers, rather than for the research examples given by Kragel and colleagues.