

New Research in *Psychological Science*

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[Feelings of Culpability: Just Following Orders Versus Making the Decision Oneself](#)

Maayan S. Malter, Sonia S. Kim, and Janet Metcalfe



In several experiments, participants imagined themselves either as programmers of self-driving cars or as mayors during the COVID-19 pandemic. In response to moral dilemmas related to these situations, they then had to either 1) make decisions themselves about what to do or 2) do what a superior ordered. Finally, they were informed of a tragic outcome that occurred because of their decision and asked how culpable they felt. Results were contrary to the researchers' expectations, showing that participants who followed orders felt more culpable than those who had made their decisions by themselves. The researchers discuss possible reasons for this result.

[Harder Than You Think: How Outside Assistance Leads to Overconfidence](#)

Matthew Fisher and Daniel M. Oppenheimer



Fisher and Oppenheimer explored when and why people are unaware of their reliance on outside assistance and how to reduce the resulting overconfidence (e.g., using Google to look up facts and subsequently overestimating one's own knowledge). Across eight experiments, the researchers found that people recognized the extent of their knowledge (i.e., had better metacognitive calibration) when outside assistance was given only after they had first had a chance to provide an answer (i.e., after a delay) or when they had to actively choose to receive assistance.

[Effects of Time-Varying Parent Input on Children's Language Outcomes Differ for Vocabulary and Syntax](#)

Catriona Silvey, Özlem Ece Demir-Lira, Susan Goldin-Meadow, and Stephen W. Raudenbush

The best sequence of parents' language input for children's language development appears to be

different for vocabulary and syntax acquisition—for vocabulary, it appears to be best that parents provide diverse input throughout development, whereas for syntax, it appears to be best that parents’ input increases in syntactic complexity over time. Silvey and colleagues obtained these results by using epidemiology methods to predict children’s outcomes on vocabulary and syntax tests in kindergarten from their parents’ linguistic input when children were 14 and 30 months old. These findings have implications for the optimal support of children’s language development.

[The Shape of Space: Evidence for Spontaneous but Flexible Use of Polar Coordinates in Visuospatial Representations](#)

Sami R. Yousif and Frank C. Keil



In what format do humans represent space? Yousif and Keil analyzed participants’ errors in a visual-matching paradigm to reveal the latent format of visuospatial representations. In six experiments, they found that individuals use polar space representations that capture angle and distance relations rather than Cartesian representations that capture horizontal and vertical relations. They also found that although polar representations operate spontaneously, individuals can flexibly use other coordinate systems when acting in highly structured spaces (e.g., grids).

[Challenging the Link Between Early Childhood Television Exposure and Later Attention Problems: A Multiverse Approach](#)

Matthew T. McBee, Rebecca J. Brand, and Wallace E. Dixon, Jr.



In 2004, Christakis and colleagues analyzed a 1979 national data set and subsequently used those findings to claim that exposure to television in early childhood is linked with later attention problems. Here, McBee and colleagues conducted two multiverse analyses using the same data set and did not find the association that Christakis identified. In the current analyses, McBee and colleagues evaluated 848 models of the relationship between television exposure and attention problems. Only 19.6% of these models indicated that a significant relationship existed. Thus, the researchers argue that the data do not suggest a harmful effect of television on attention.

[Titration of the Smell of Fear: Initial Evidence for Dose-Invariant Behavioral, Physiological, and Neural Responses](#)

Jasper H. B. de Groot, Peter A. Kirk, and Jay A. Gottfried



Can human body odor convey social information? In this study, de Groot and colleagues exposed women to sweat samples collected from men who showed weak, medium, or strong physiological responses to fear-inducing video clips. The researchers then measured how these women perceived the facial expressions of different individuals expressing different levels of fear and disgust. Results indicated that, compared with samples collected in the absence of fear, all the fear-sweat samples biased the female participants to perceive fear in the facial expressions they later viewed. This bias in fear perceptions could be identified in functional MRI and physiological data and did not depend on the “amount” of fear felt by the men who provided the sweat samples.

[Physical Strength Partly Explains Sex Differences in Trait Anxiety in Young Americans](#)

Nicholas Kerry and Damian R. Murray



On average, women score higher on measures of anxiety than men. The difference might be partially due to sex differences in physical strength, this research suggests. Kerry and Murray measured grip strength, self-perceived formidability (i.e., perceived physical strength and fighting ability), and personality traits in a sample of men and women. They found that people of both sexes who were physically stronger and/or perceived themselves as more formidable scored lower on anxiety than those with lower real and/or perceived strength. Moreover, real and perceived physical strength accounted for the sex differences usually seen in anxiety.

[Physically Implied Surfaces](#)

Patrick C. Little and Chaz Firestone



Individuals appear to infer the presence of objects that have only been implied, this research suggests. Participants watched clips of an actor colliding with an invisible wall and stepping over an invisible box. Afterward, a black line appeared where the implied surface would have been, and participants reported the line's orientation (vertical or horizontal). Participants responded faster when the orientation of the line matched the invisible wall or box. This indicates that participants' representation of the implied surface influenced their processing of the visible line they saw immediately afterward.