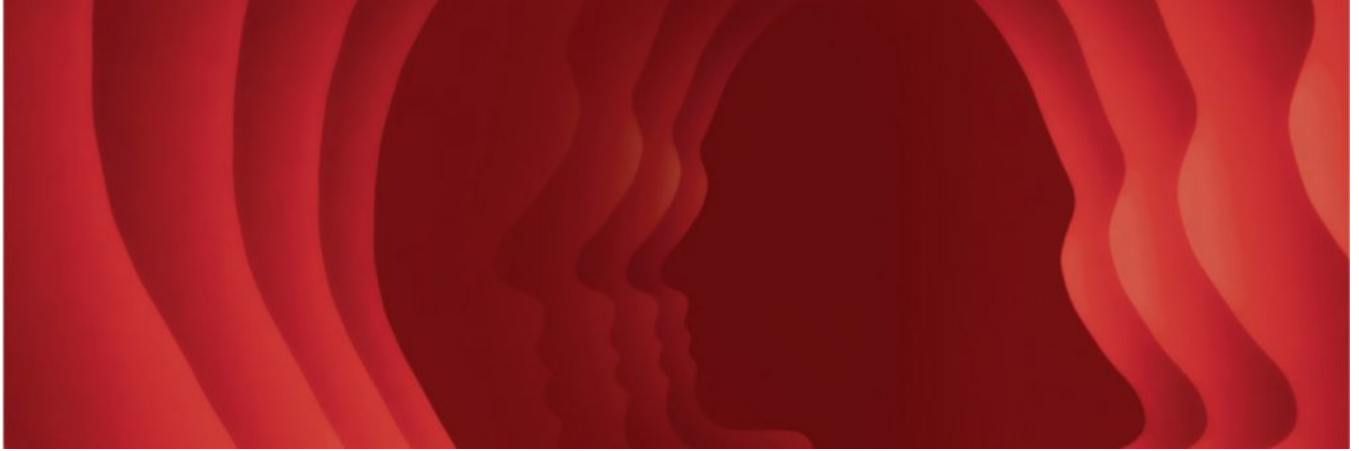


New Research in *Psychological Science*

July 20, 2022



[Growth-Mindset Intervention Delivered by Teachers Boosts Achievement in Early Adolescence](#)

Tenelle Porter et al.



This research suggests that growth-mindset interventions can enhance real-world grades when delivered by teachers. Porter and colleagues tested a teacher-delivered intervention for U.S. adolescents in Grades 6 and 7 that was designed to both impart growth-mindset beliefs and create a supportive classroom environment where those beliefs could flourish ($N = 1,996$ students, $N = 50$ teachers). The intervention improved the grades of struggling students in the target class by 0.27 standard deviations, or 2.81 grade percentage points. The effects were largest for students whose teachers endorsed fixed mindsets before the intervention.

[Human Echolocators Have Better Localization Off Axis](#)

Lore Thaler et al.

Thaler and colleagues tested the echolocation abilities of nine blind adult humans who were experts in click-based echolocation. They found that participants were better at localizing a target and used lower intensity emissions (i.e., mouth clicks) when the target was placed 45° to the side compared with when it was placed at 0° (i.e., straight ahead). This was surprising because for human source localization (i.e., regular spatial hearing), echolocation performance is best when targets are straight ahead. Differing echo intensity in the ears might explain these findings. These results suggest that human echolocation and source hearing may rely on different acoustic cues.

[A Network Analysis of Children's Emerging Place-Value Concepts](#)

Corinne A. Bower, Kelly S. Mix, Lei Yuan, and Linda B. Smith

Bower and colleagues used network analyses to determine how a year of formal instruction supports and transforms kindergartners' organization of informal knowledge about multidigit numbers. The

researchers found that kindergartners' piecemeal knowledge about the surface properties of reading and writing multidigit numbers was associated with the use of base-10 units to determine large quantities, and that this association was connected to other emerging skills. After a year of instruction, each skill became connected to the "hub" abilities of reading and writing multidigit numbers, which are central to the conceptualization of place-value. These findings provide new insights into how partial knowledge provides the backbone on which explicit principles are learned.

[Deception Cues During High-Risk Situations: 911 Homicide Calls](#)

Patrick M. Markey, Erika Feeney, Brooke Berry, Lauren Hopkins, and Isabel Creedon



Markey and colleagues examined whether certain cues that callers display during emergency homicide calls could suggest potential deceit. They asked judges to rate the cues displayed by a sample of 911 homicide callers and found that deceptive callers tended to display overly emotional cues (e.g., moody, nervous), act overwhelmed, and tell unclear narratives. Also, this pattern of deceptive cues could be used to help establish guilt or innocence in other samples of 911 callers. Thus, law-enforcement officers and others may use the pattern of cues displayed during emergency calls to help identify people and areas of interest.

[Mind Wandering Impedes Response Inhibition by Affecting the Triggering of the Inhibitory Process](#)

Sumitash Jana and Adam R. Aron



Jana and Aron examined how mind wandering—when one's mental focus shifts toward task-unrelated thoughts—affects stopping motor responses. Participants responded to visual stimuli by pressing left or right arrows on the keypad, but in certain trials they were told to try to stop their responses. After each trial, they answered questions about their mind wandering during the task. When their minds were wandering, participants took longer and failed more often to stop compared with when they were focused. Further analyses indicated that mind wandering appears to primarily affect the triggering of the stopping processes rather than the stopping implementation itself.

[Lack of Belonging Predicts Depressive Symptomatology in College Students](#)

Janine M. Dutcher et al.



Dutcher and colleagues examined how feelings of belonging shape mental health among young adults. In three data sets from two universities, they found that lower levels of daily-assessed feelings of belonging early and across the academic term predicted higher depressive symptoms at the end of the term. These relationships held when models controlled for baseline depressive symptoms, sense of social fit, and loneliness and frequency of social interactions. This work underscores the importance of daily-assessed feelings of belonging in predicting subsequent depressive symptoms and their potential for informing early detection and mental health interventions among young adults.

[Sources of Interference in Memory Across Development](#)

Hyungwook Yim, Adam F. Osth, Vladimir M. Sloutsky, and Simon J. Dennis



Yim and colleagues tested 4- to 5-year-olds ($n = 103$), 7- to 8-year-olds ($n = 82$), and adults ($n = 70$) using item- and source-recognition memory tasks with various manipulations (i.e., list length, list strength, word frequency). The researchers then decomposed sources of interference in episodic memory, using a computational model. They found that interference stemming from other items on the study list rapidly decreased with development, whereas interference from contexts (i.e., the lists; when and where an item appeared) gradually decreased but remained the dominant source. The model also indicated that humans' ability to discriminate items develops rapidly, whereas the ability to discriminate contexts develops more slowly.

[Little Support for Discrete Item Limits in Visual Working Memory](#)

Klaus Oberauer

Adam et al. (2017) presented evidence indicating that individuals can recall visual features of up to six items, but error distributions are indistinguishable from guessing after the third or fourth response. Oberauer presents four experiments reexamining this finding. None of the four showed evidence for guessing-like error distributions. Modeling data revealed that some individuals do produce guessing-like distributions and others do not. This heterogeneity supports the hypothesis that, rather than visual working memory having a discrete limit, some individuals decide to guess on hard trials even when they have weak information in memory.