

# New Research From Psychological Science

February 10, 2017

Read about the latest research published in *Psychological Science*:

## [Hidden Advantages and Disadvantages of Social Class: How Classroom Settings Reproduce Social Inequality by Staging Unfair Comparison](#)

*Sébastien Goudeau and Jean-Claude Croizet*

In a series of studies, researchers had middle school students answer questions about a written passage. In one condition, students raised their hands each time they answered a question (visibility condition), and in another, they were instructed to not indicate when they had answered a question (no-visibility condition). Children from working-class families underperformed in the visibility condition compared with the no-visibility condition. The performance of children from upper-middle-class families was not impacted by hand raising. In a follow-up study, the researchers found that the performance differences of working-class students were eliminated when they were notified that some students might have greater familiarity with the task than others. The researchers posit that something as simple as having children raise their hands in a classroom can amplify social-class achievement gaps, but that reconstruing this behavior can help put kids on a more level playing field.

## [Hippocampal Processing of Ambiguity Enhances Fear Memory](#)

*Ugwechi Amadi, Seh Hong Lim, Elizabeth Liu, Michael V. Baratta, and Ki A. Goosens*

When unpleasant events happen in the real world, they are often unexpected. Despite this, lab-based fear-conditioning studies rarely incorporate variability in timing in their fear-training procedures. To examine the impact of variability in fear conditioning, the researchers trained rats to associate a specific auditory tone with a foot shock. The researchers varied the timing of the foot shock after the predictive cue and found that increasing ambiguity increased fear-memory strength. In a follow-up study, the researchers infused muscimol (i.e., a  $\gamma$ -aminobutyric acid type A receptor agonist that causes transient inactivation of targeted brain regions) into the dorsal hippocampus prior to fear conditioning. Muscimol had no impact on fear responses that resulted from predictably timed aversive events, but it reduced fear responses that resulted from unpredictably timed aversive events. This suggests that the hippocampus plays a role in the enhanced fear learning that results from unexpectedly timed aversive stimuli.

## [Ensemble Perception of Dynamic Emotional Groups](#)

*Elric Elias, Michael Dyer, and Timothy D. Sweeny*

When people view crowds, they use a visual mechanism called ensemble coding. This mechanism

compresses information from crowd members into a summary statistic, allowing people to see the group's collective attributes. Members of crowds often behave together, and in this study the researchers examined whether ensemble coding is sensitive to synchronous behavior of groups. Participants viewed an array of 12 faces that displayed the same emotion but with different intensities. Participants watched as faces in the array simultaneously increased or decreased in emotional intensity or as they independently increased or decreased in emotional intensity. The participants were asked to identify the average emotional intensity of the crowd of faces. Participants perceived the average emotion of the crowds more accurately when the faces altered synchronously than when they altered asynchronously, suggesting that ensemble encoding is sensitive to the coordinated behavior of groups.