

New Research From Psychological Science

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

[A Thousand Words Are Worth a Picture: Snapshots of Printed-Word Processing in an Event-Related Potential Megastudy](#)

Stéphane Dufau, Jonathan Grainger, Katherine J. Midgley, and Phillip J. Holcomb

Several large-scale studies of word recognition have been performed; however, these studies have been behavioral in nature and have not focused on the timing of component processes involved in reading. Participants completed a 960-word go/no-go lexical decision task while researchers collected electroencephalogram (EEG) data. The researchers designed the task to investigate the timing of visual, orthographic, lexical, and semantic processing by altering the length, concreteness, or visual complexity of the words used in the task. An analysis of event EEG data indicated a hierarchical account of word recognition in which effects of visual complexity were followed by sustained orthographic effects and lexical influences and then by semantic effects. These findings shed light on the timing of processes involved in visual word recognition and can help guide the design of future experiments studying such phenomena.

[Rats Fed a Diet Rich in Fats and Sugars Are Impaired in the Use of Spatial Geometry](#)

Dominic M. D. Tran and R. Frederick Westbrook

Studies in humans have found that a diet high in fat impairs performance on attention and memory-retrieval tasks. In rats, high-fat and high-sugar (HFHS) diets have been found to impair spatial learning and performance. To better understand the nature of these spatial deficits, the researchers fed rats a standard diet or an HFHS diet. Rats then completed two tasks, one testing place-recognition memory and the other testing object-recognition memory. Rats fed an HFHS diet performed comparably with rats fed a standard diet on the object recognition task but performed considerably worse on the place-recognition task. Follow-up studies indicated that this impairment was specific to the use of geometrical information, which suggests that HFHS diets do not result in general spatial-processing problems, but rather in specific impairments in the processing of distance and direction.

[The Effects of Social Context and Acute Stress on Decision Making Under Uncertainty](#)

Oriel Feldman Hall, Candace M. Raio, Jennifer T. Kubota, Morgan Seiler, and Elizabeth A. Phelps

Although stress is known to influence decision making in nonsocial contexts, less is known about how stress influences decision making in social contexts. Participants completed a stress-induction or a control task before playing a trust game and a lottery game. In the trust game, participants had to decide

whether to invest money with a trustee; in the lottery game, they gambled in the hope of doubling their money. Participants not under stress invested and gambled similar amounts of money, whereas those under stress gambled more money but trusted people less. The researchers found that stress affected the way participants incorporated feedback from previous social and nonsocial interactions into future decisions. These findings help clarify the way stress and social context impact decision making in uncertain situations.