

# New Research From Psychological Science

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

## [Perceived Partner Responsiveness Predicts Diurnal Cortisol Profiles 10 Years Later](#)

*Richard B. Slatcher, Emre Selcuk, and Anthony D. Ong*

Decades of research has shown that marriage affects health; however, few studies have actually investigated how marriage “gets under the skin” to influence biological and psychological health. The authors hypothesized that cortisol might provide this link. Cortisol has a diurnal rhythm, peaking in the morning and decreasing over the course of the day. Research has linked flatter cortisol slopes to a host of negative psychological and psychological outcomes. When married or cohabitating partners were followed over the course of 10 years, the researchers found that perceived partner responsiveness predicted healthier cortisol 10 years later — an effect partly driven by decreases in negative affect over the 10-year period. These findings indicate that diurnal cortisol patterns may be one pathway through which relationships influence long-term health outcomes.

## [Predicting and Improving Recognition Memory Using Multiple Electrophysiological Signals in Real Time](#)

*Keisuke Fukuda and Geoffrey F. Woodman*

Researchers have found electrophysiological markers that indicate whether an item will be encoded and remembered or forgotten. These signals are typically found by averaging hundreds of trials’ worth of data. To see if memory could be predicted on a trial-by-trial basis, electroencephalogram data were recorded as participants studied, and then performed, a recognition task for series of pictures. Frontal positivity (i.e., larger sustained positivity at frontal electrodes) and alpha power suppression were found to serve as trial-by-trial predictors of the subsequent recognition of stimuli. A follow-up study indicated that these two indicators reflected variability in memory-encoding processes. A follow-up study found that asking participants to restudy items classified as poorly remembered on the basis of the electrophysiological signals dramatically improved the efficacy of learning for those items.

## [Determinants of Propranolol’s Selective Effect on Loss Aversion](#)

*Peter Sokol-Hessner, Sandra F. Lackovic, Russell H. Tobe, Colin F. Camerer, Bennett L. Leventhal, and Elizabeth A. Phelps*

Although studies have examined how emotions influence decision making as a whole, fewer studies have examined how emotions influence the separate processes of decision making. To examine this, participants took either a placebo or propranolol — a drug that interferes with the neurohormonal basis of

autonomic arousal — and completed a gambling task. The task design and modeling of the data was such that it allowed the researchers to isolate different processes involved in decision making, such as loss aversion, risk attitudes, and choice consistency. The researchers found that the propranolol reduced loss aversion in a dose-dependent manner, providing evidence for a link between emotion and loss aversion in risky decision making.