New Research From Psychological Science

June 21, 2013

Read about the latest research published in *Psychological Science*, a journal of the Association for Psychological Science.

Edward Gibson, Steven T. Piantadosi, Kimberly Brink, Leon Bergen, Eunice Lim, and Rebecca Saxe

Research has suggested that the default word order across languages is subject, object, then verb (SOV), so why have so many languages developed with a subject-verb-object (SVO) order? One explanation is the *noisy-channel hypothesis*, which supposes that individuals choose a speech pattern that gives the listener the best chance of understanding the original meaning of a message. In three experiments, participants looked at drawings and described the actions they showed using words and then using gestures. In English-, Japanese-, and Korean-speaking participants, the pattern of gestures versus the pattern of words supported the noisy-channel hypothesis.

Physical and Biological Constraints Govern Perceived Animacy of Scrambled Human Forms

Steven M. Thurman and Hongjing Lu

To better understand the mechanisms underlying the perception of animacy — perception of an object as an animate being such as a mammal or insect — researchers examined the influences of extrinsic motion, body orientation, and spatial structure on participants' rating of the animacy of biological motion depicted in point-light animations. Animacy ratings were higher when the background was naturalistic than when it was stationary and when the direction of gravity and congruency between intrinsic and extrinsic motions was maintained. This indicates that perceptions of animacy depend on both local intrinsic motion and congruency with global extrinsic motion and spatial structure.

An Upside to Adversity? Moderate Cumulative Lifetime Adversity Is Associated With Resilient Responses in the Face of Controlled Stressors

Mark D. Seery, Raphael J. Leo, Shannon P. Lupien, Cheryl L. Kondrak, and Jessica L. Almonte
Are there benefits to experiencing adversity? Participants reported their lifetime level of adversity before
immersing their hands in ice-cold water. The researchers then measured participants' level of
catastrophizing, pain, positive and negative affect, and depression. Participants who had experienced
moderate levels of life adversity had less negative responses to the pain of the cold water than did those
who had experienced low or high levels of lifetime adversity. This suggests that experiencing moderate
levels of adversity may lead people to be more prepared to deal with stress in the future.

Motor Activation During the Prediction of Nonexecutable Actions in Infants

Victoria Southgate and Katarina Begus

Southgate and Begus test the hypothesis that the relationship between motor capability and action anticipation in infants is driven by access to a corresponding motor representation. The researchers measured infant's brain activation in response to images of different actions, and they found that infants' sensorimotor cortex was recruited regardless of whether they had a corresponding motor representation for the viewed action. This finding challenges the view that action prediction depends on motor correspondence.

Temporal Predictability Facilitates Action, Not Perception

Roland Thomaschke and Gesine Dreisbach

Does temporal predictability benefit cognitive processing related to action or perception? Participants performed a speeded binary-choice task that consisted of two possible target symbols. The interval preceding the stimuli predicted which symbol would appear in some instances (correlated sets) but not in others (uncorrelated sets). Participants responded using four buttons they could operate with one (unimanual) or both (bimanual) hands. An interaction between the interval predictability and the interval frequency was seen in the unimanual group but not in the bimanual group, which suggests that specific temporal expectancy facilitates movement processing.