New Research From Psychological Science

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Body Movement Selectively Shapes the Neural Representation of Musical Rhythms

Baptiste Chemin, André Mouraux, and Sylvie Nozaradan

Although movement is thought to shape the processing of sensory inflow, it is still not well understood how or whether movement shapes perception in the auditory system. Participants listened and tapped their hands in time to a repeated rhythmic sequence before and after they underwent a body-movement training session in which they moved their bodies in time to the rhythm in a specific meter. The researchers found that neural responses measured using encephalography were enhanced at frequencies related to rhythm to which participants had moved, a finding that provides evidence for the ability of body movement to shape the way we process and internally represent auditory rhythms.

Conceptual Processing of Distractors by Older but Not Younger Adults

Tarek Amer and Lynn Hasher

Although previous studies have shown that older adults encode perceptual aspects of irrelevant stimuli, it is not known whether they are able to encode irrelevant information at a deeper conceptual level. In a series of studies, older and younger adults performed a Stroop task or an n-back task before completing a general-knowledge task. Unbeknownst to participants, some of the answers for the general-knowledge task had served as distractors in the Stroop and n-back tasks. Older adults performed better than younger adults on the general-knowledge task and showed more reliable priming and more conceptual priming for the distractors presented in the Stroop and n-back tasks. These findings indicate that older adults process distracting information conceptually and are able use this information to enhance their performance on subsequent tasks.

Inhibition-Induced Forgetting: When More Control Leads to Less Memory

Yu-Chin Chiu and Tobias Egner

The ability to inhibit a response is an important component of cognitive control; however, the effect of response inhibition on other cognitive processes is unclear. In the first of several studies, participants completed a go/no-go task that used male and female faces as stimuli. Participants were instructed to respond to one gender of faces (go), but not to the other (no-go). Participants then completed a memory recognition task in which they had to indicate whether presented faces were new or old (i.e., had been part of the no/no-go task or not). Participants' memory for "no-go" faces was worse than for "go" faces. The authors suggest that during response inhibition, attentional resources are diverted away from

stimulus encoding, leading to reduced memory for those items.