New Research in *Psychological Science*

June 28, 2021

[The Fallacy of an Airtight Alibi: Understanding Human Memory for "Where" Using Experience Sampling](#)
Elizabeth Laliberte, Hyungwook Yim, Benjamin Stone, and Simon J. Dennis

Memory for "where" one was at some point in time is not very accurate, this research suggests. For a month, a smartphone app recorded the movement patterns, GPS locations, and audio environments of 51 participants every 10 min. One week after the app stopped recording data, participants took a memory test in which they were prompted with 72 time-and-date cues and asked to select the point on a map where they had been (among four options). Participants were incorrect 36% of the time and were likely to confound days across weeks, hours across days, weeks in general, and similar locations.

[Frequency-Specific Effects in Infant Electroencephalograms Do Not Require Entrained Neural Oscillations: A Commentary on Köster et al. (2019)](#)
Christian Keitel, Jonas Obleser, Sarah Jessen, and Molly J. Henry

Köster and colleagues (2019) used rhythmic visual brain stimulation in 9-month-olds while presenting different events. Rhythmic visual brain stimulation can be manipulated by the rhythm of flickering images— a flicker rate of 6 Hz and a flicker rate of 4 Hz stimulate infants' alpha and theta brain frequencies, respectively. Results indicated that the brain synchronization with the theta waves sharply increased for unexpected outcomes, but alpha oscillations did not differ between unexpected and expected outcomes. In this Commentary, Keitel and colleagues argue that the effects observed by Köster and colleagues (2019) could be understood as differences in the spectral representation of stimulus-evoked activity rather than reflecting entrained or stimulus-synchronized oscillations.

[How Long Does It Take for a Voice to Become Familiar? Speech Intelligibility and Voice Recognition](#)

[Are Differentially Sensitive to Voice Training](#)
Emma Holmes, Grace To, and Ingrid S. Johnsrude

To investigate how voice familiarity develops, Holmes and colleagues exposed participants to three novel voices for different lengths of time (from 10 to 60 min) and tested how recognizable and intelligible those voices became. When compared with two unheard voices, the previously heard voices were more recognizable and intelligible. The longest exposures increased intelligibility but not recognizability. Exposure of about 60 min (478 sentences) resulted in a speech-intelligibility benefit as large as the benefit reported in previous research involving very familiar voices (friends and spouses). Thus, just 1 hr of training can create voice familiarity and accompanying higher intelligibility.

[How Candidates' Age and Gender Predict Voter Preference in a Hypothetical Election](#)
Yiqin Alicia Shen and Yuichi Shoda

The ages of male and female candidates appear to influence the intentions of voters differently. Participants saw photos of candidates in hypothetical elections; all other candidate information, such as party affiliation, was controlled. Participants revealed a higher intention to vote for women than men when the candidates of either gender were younger than 35 years old. Participants' intentions to vote for female candidates decreased as the women aged past 35, whereas intentions to vote for men increased until the men reached about 45, at which point they slightly decreased. Participants' perceptions of candidates' attractiveness and warmth were also associated with higher intentions to vote for that candidate.

[Undetected Neurodegenerative Disease Biases Estimates of Cognitive Change in Older Adults](#)
Karra D. Harrington et al.

Undetected neurodegenerative disease may lead to overestimating cognitive decline in older adults. Harrington and colleagues used neuroimaging and cerebrospinal-fluid biomarkers of neurodegeneration to classify a sample of older adults' neurodegeneration as normal or abnormal. When models of cognitive change did not include this classification, they indicated significant decline in semantic memory, processing speed, and working memory. However, when the models included the neurodegeneration classification, the rate of change was attenuated and participants in the normal group did not show cognitive decline. These findings suggest the importance of accounting for preclinical neurodegenerative disease when evaluating cognitive decline.

[The Foreground Bias: Initial Scene Representations Across the Depth Plane](#)
Suzette Fernandes and Monica S. Castelhano

Individuals appear to initially rely on foreground visual information when interpreting a scene, this research suggests. Fernandes and Castelhano presented chimera scenes (e.g., office objects in the foreground and a kitchen scene in the background, or vice-versa) and found that a foreground bias occurred when the images were presented for short durations (e.g., 50 ms) but dissipated at longer durations (e.g., 250 ms). However, participants always prioritized foreground information over background information. These findings suggest that considering different categories of space across depth may advance understanding of different types of scene processing.

[Eye Movements Predict Large-Scale Voting Decisions](#)
Jason C. Coronel et al.

Eye movements may predict the clarity of ballot measures and voting decisions, helping researchers and policymakers craft more comprehensible ballots to decrease abstention. In the lab, Coronel and colleagues tracked participants' eye movements as they read real ballot measures. Ballots that elicited eye movements associated with difficulties in language comprehension (more and longer fixations) were more likely to lead to abstention or be voted against in U.S. elections. Thus, eye movements from a small group of participants in the lab can predict aggregate voting decisions in real elections. Moreover, eye movements were better predictors of voting decisions than other measures of ballot language difficulty.

[Why It Is Important to Know How the Sausage Is Made: Benefits, Risks, and Responsibilities of Using Third-Party Data](#)
Patricia J. Bauer

In this Editorial, Bauer reflects on the adoption of open-science practices, especially making data publicly available—the most common open-science practice adopted by Psychological Science authors. Bauer introduces the two following Data Briefs (Eisner & Fearon; Simmons et al.), written in the context of specific data sets but offering generalizable reflections on the best practices for responsible use of publicly shared data.

[Pitfalls of Using Data Portals as Sources for Psychological Research: The Example of Cross-National Homicide Data](#)
Manuel Eisner and Pasco Fearon

Eisner and Fearon focus on homicide data retrieved by large international organizations. They examine the downsides of using data portals in psychological science and ask whether the results reported can be considered valid and reliable. For example, the World Health Organization (WHO) describes how its homicide data are estimated and warns against the uncritical use of estimated data. Yet at least 10 peer-reviewed articles using WHO data uncritically were published between 2009 and 2017. Eisner and Fearon highlight that researchers using secondary data must understand how the data were generated and whether they are appropriate for the research purpose.

[Responsible Use of Open-Access Developmental Data: The Adolescent Brain Cognitive Development](#)

Cortney Simmons et al.

Simmons and colleagues use the Adolescent Brain Cognitive Development (ABCD) Study, a large longitudinal study of youth brain development and health in the United States, to illustrate the best practices for responsible open-access data use. The authors suggest that users of these data must be aware of the heterogeneity of the broader social context in which development occurs and the potential for environmental adaptation and developmental change. Simmons and colleagues propose some best practices for responsible use of data, including avoiding causal or deterministic language, being modest with conclusions, and acknowledging environmental variables.