New Research From Psychological Science

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

How Endogenous Crowd Formation Undermines the Wisdom of the Crowd in Online Ratings Gae?l Le Mens, Bala?zs Kova?cs, Judith Avrahami, and Yaakov Kareev

People often rely on ratings from online recommendation platforms before making decisions about purchases or other kinds of consumption. These ratings typically are averaged and accordingly are thought to reflect the wisdom-of-the-crowd phenomenon and thus provide unbiased quality estimates. But what if the way the crowd forms biases the average ratings? Le Mens and colleagues analyzed more than 80 million online ratings and found that items with more ratings tend to attract more additional ratings than items with fewer ratings. This asymmetry indicates an endogenous formation of the crowd that therefore generates a systematic bias. The authors created a model that describes the endogenous formation of crowds and how it might affect ratings and showed that average ratings are negatively biased, especially when average ratings are based on few ratings. Data from an experiment in which participants were presented with ratings from different types of crowds supported the model. Thus, experimental data and data from real online product ratings support the hypothesis that the crowd that rates online products is formed endogenously, provoking a systematic negative bias that penalizes items with few ratings and favors items with many ratings.

Increasing the Similarity of Lineup Fillers to the Suspect Improves the Applied Value of Lineups <u>Without Improving Memory Performance: Commentary on Colloff, Wade, and Strange (2016)</u> Andrew M. Smith, Gary L. Wells, Laura Smalarz, and James Michael Lampinen

In this commentary, Smith and colleagues reanalyze data from Colloff, Wade, and Strange (2016). Colloff and colleagues suggested that the presence of similar-looking individuals in a lineup improved witnesses' memory performance by helping them determine which features were relevant for the identification, as predicted by the diagnostic-feature-detection theory. Despite agreeing with Colloff et al. that lineups with similar-looking individuals produce better outcomes in the legal system than socalled "unfair" lineups, in which a suspect stands out, Smith et al. argue that high-similarity fillers (similar-looking innocent individuals in the lineup) actually worsen memory performance and that Colloff et al. used the wrong signal detection theory (SDT) model to fit to their data. Smith et al. suggest that, instead of diagnostic-feature detection, differential-filler siphoning occurs in high-similarity lineups. That is, in a lineup with similar-looking individuals, the innocents attract some of the false identifications that in a lineup with very dissimilar individuals would occur only for the innocents who shared most distinctive features with the guilty individual. Thus, high-similarity fillers influence only which innocent the witnesses confuse with the guilty but do not influence the ability to discriminate between the guilty and the innocent. Smith et al. also suggest that a simple SDT model is inadequate because lineup procedures imply both detection and identification, which can be better captured by a compound-SDT model, and that filler-identification rates must also be taken into account.

Filler-Siphoning Theory Does Not Predict the Effect of Lineup Fairness on the Ability to Discriminate Innocent From Guilty Suspects: Reply to Smith, Wells, Smalarz, and Lampinen (2018) Melissa F. Colloff, Kimberley A. Wade, Deryn Strange, and John T. Wixted

In this reply to the commentary in which Smith et al. argue that lineups with similar-looking individuals do not increase correct suspect identification, present an alternative explanation—differential-filler siphoning–and suggest that Colloff et al. had fit their 2016 data to the wrong model, Colloff et al. compare differential-filler siphoning to a theory of response bias and show that although it is compatible with their 2016 results, it does not predict them. They say that differential-filler siphoning predicts a change in response criterion but not a change in the discrimination between the distributions of innocent and guilty suspects. Colloff et al. also provide data from an experiment in which they did not include innocent fillers therefore differential-filler siphoning could not have occurred. These new results replicate their 2016 findings, showing a shift in the distributions and, consequently, a change in the ability to discriminate between innocent and guilty individuals.