

When making confidence judgments, people take into account bottom-up and top-down stimulus uncertainty

Submission ID 3000073

Submission Type Poster

Topic Cognitive Science

Status Submitted

Submitter William T. Adler

Affiliation New York University

SUBMISSION DETAILS

Presentation Type Oral Presentation

Presentation Abstract Summary Humans can meaningfully rate their confidence in a perceptual or cognitive decision. A normative Bayesian framework predicts that confidence is a function of the posterior probability of being correct. To determine whether subjects take uncertainty into account in the way required by the Bayesian framework, or at all, we performed two binary categorization experiments. In one experiment, we manipulated reliability directly, by adjusting contrast. In another experiment, we manipulated reliability through attentional cuing: the subject was sometimes directed to attend to a nontarget stimulus. When reporting their confidence, subjects take stimulus uncertainty into account in a way that is qualitatively similar to that predicted by the Bayesian framework. However, quantitative model comparison suggests that they may do so in a way that is not exactly Bayesian.

Co-author Information

* Presenting Author

First Name	Last Name	Affiliation	E-mail
William T. *	Adler *	New York University	will.adler@nyu.edu
Rachel N.	Denison	New York University	rachel.denison@nyu.edu
Marisa	Carrasco	New York University	marisa.carrasco@nyu.edu
Wei Ji	Ma	New York University	weijima@nyu.edu

Keywords

Keywords
psychophysics
modeling

attention
confidence
behavior