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Stereotypes as Bayesian Judgements of Social Groups

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Abstract

A stereotype is a generalization about people within a certain category—and category information is often used to make probabilistic predictions about people within a particular group. The current work examines whether stereotypes can be understood in terms of conditional probabilities as per Bayesian reasoning. For instance, the stereotype of Germans as efficient can be understood as the conditional probability of someone being efficient given that they are German. Whether such representations follow Bayes' rule was tested in a replication and extension of McCauley and Stitt's (1978) original studies. Across two experiments, we found that people's judgements of eight different social groups were appropriately Bayesian i.e., their direct posterior predictions were in line with what Bayes' rule suggests they should be, given subjects' priors and likelihood ratios. For any given social group, it was also the case that traits with a high calculated diagnostic ratio distinguished stereotypic from non-stereotypic traits.