Belief bias in judgments of sample-size adequacy

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Abstract: Previous research on syllogistic logical reasoning indicates that people are more likely to judge an argument as valid when they believe the argument's conclusion to be true. The present research assessed whether belief bias would also occur in intuitive statistical judgment. There were two versions of a judgment scenario (varying between subjects). Version A described an observer who, based on 100 observations, draws the conclusion that most Americans are left-handed. Version B was like A except the conclusion was that most Americans are right-handed. Participants' task was to assess the degree to which 100 is a sufficiently large sample to support a confident conclusion (i.e., that Americans tend to be left-handed, or that Americans tend to be right-handed). Participants judged the sample size to be more adequate when the argument conclusion was presumably believed (i.e., that "most Americans are right-handed") than when the conclusion was "most Americans are left-handed."