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Individual Differences, Confirmation, and the Consideration of Alternative Causes

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Abstract: In causal inference, people place greatest weight on cases where a hypothesized cause and its outcome are simultaneously present, potentially reflecting a positive test or confirmatory strategy. We hypothesized that individuals may display more confirmation seeking when an outcome has few, versus many, causal alternatives and that this relation may vary with actively open-minded thinking (AOT) or need for cognition (NFC). Subjects learned about implausible or plausible causes of outcomes that had many or few causal alternatives (e.g., stress vs. colon cancer). On each of 16 trials, subjects received frequency data and made a causal judgment, after which they completed the AOT and NFC scales. As hypothesized, subjects weighted confirming data more heavily with fewer vs. many causal alternatives, but this relationship only held for plausible causes. AOT interacted with causal alternatives: With few alternatives, AOT was unrelated to data-weighting. However, with many alternatives, data-weighting increased with increases in AOT.