

# The role of explanation and prior belief in evaluating research

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**Abstract:** We examined two factors that could influence evaluation of research findings: having ones belief confirmed or disconfirmed by evidence, and presence or absence of an explanation for the findings. Participants (n=101) expressed a belief about a studys outcome before reading a research report. When belief was confirmed, the studys methodology was subsequently evaluated more positively, and findings were rated as more obvious, important, and credible. Moreover, the explanation for the finding was considered more convincing, regardless of whether participants actually read an explanation. These participants also found it easier to think of explanations for the finding, suggesting they may have been rating self-generated explanations. When evaluating evidence, the interaction of prior belief and explanation was observed. Specifically, when a belief was disconfirmed, the evidence was rated as more convincing only when an explanation was also provided. Prior belief strongly influences the process of evaluating both research findings and explanations.