

Belief Heterogeneity and Information Acquisition

When Others Make the Decision

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Abstract

When should you pay for information that someone else will act on? Standard Bayesian theory predicts it should not matter if incentives are aligned; information is equally valuable whether you or another agent makes the final decision. This paper tests that prediction experimentally.

In a laboratory experiment with 198 participants, pairs face a Bayesian decision problem involving an optional signal about a binary state. I independently vary (i) whether participants share common or heterogeneous prior beliefs, and (ii) whether the information purchaser is also the final decision maker. I elicit first- and second-order posterior beliefs via the strategy method and willingness to pay (WTP) for information using a BDM mechanism.

Three main results emerge. First, participants expect others to update beliefs similarly to themselves (a false consensus effect), but this expectation exhibits greater variance when priors differ. Second, WTP is significantly higher when participants implement their own strategy under heterogeneous priors, consistent with an amplified control premium when belief differences are salient. Third, individual deviations from Bayesian updating predict WTP in theoretically consistent directions, and participants project their own biases onto others.

These findings suggest that belief heterogeneity, not just misaligned incentives, can reduce the perceived value of delegating decisions. This could have implications for organizational information acquisition and delegation design.

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