

A study shows
policy professionals,
like everyone else,
are subject to
cognitive biases.

Policy professionals can't defeat their own biases

Most individuals like to think that they are objective, logical, and capable of evaluating all relevant, available information in order to make good decisions. But despite our best intentions, we're all susceptible to cognitive biases and heuristics – those mental shortcuts that enable us to make quick, often necessary, decisions in our daily lives, but which can also inhibit thoughtful, equitable decision-making and policy design.

Even those well-informed of the research on cognitive biases aren't immune to its effects. Policy professionals play an essential role in the design and implementation of policies, programs, and projects across the world. Cognitive biases of policy professionals – which may be influenced by social environment, mental models, or limited cognitive bandwidth – can thus have significant impact on key policies and decisions. Biases can compromise work effectiveness, and subsequently, efforts towards poverty reduction.

It would be unfair to say that organizations are altogether unaware of these challenges. To promote impartial and proper use of evidence and decision-making, they recruit and rely on judgments of well-qualified content experts, and implement procedural safeguards like peer review and deliberation, cost-benefit analysis, and other kinds of evaluations that in theory should counteract cognitive biases.

The Project

Working together with the Department for International Development (DFID), we conducted a study designed to identify decision-making biases within a sample of our own colleagues- 4,724 World Bank and 1,148 DFID staff. We used a series of experiments adapted to the development context to test for several decision-making areas and biases that loom in development policy making.

First, we studied confirmation bias, our tendency to opt for information that confirms our existing beliefs or ideas. To do so, we showed respondents identical sets of data using two frames: one asking whether a skin cream was effective at treating a rash, and the other asking whether or not minimum wage laws reduce poverty.

Second, we tested sunk cost bias, our natural impulse to continue an ineffective endeavor once an investment in money, effort, or time has been made. A major challenge in government agencies involves inertia; in particular, bureaucracies sometimes continue initiatives even when they have been shown not to work. For our experiment, we asked respondents how likely they were to continue investing in a US\$500 million project, which, due to changes in policy, was unlikely to achieve any results.

Last, we analyzed the effects of framing on risk aversion. How information is framed affects risk perception, as well as decisions to take risky decisions on behalf of others. We examined whether loss or gain framing affects willingness to take on risk in a health context relevant for policy professionals during the Ebola virus pandemic. We made respondents decide between two alternative medical treatments, but randomly assigned them to a frame either emphasizing gains ("will be saved") or losses ("will die").

The Results



Confirmation bias changes policy professionals' decisions.

Even though the data were identical, respondents were significantly less accurate in the minimum wage treatments relative to the skin cream treatments (45% vs. 65%). In addition, respondents were also asked about their views regarding wage inequality and were more likely to answer incorrectly when the right answer conflicted with their prior belief. This suggests a bias in interpreting data on ideologically charged interventions.



The more time and money spent on a project, the more difficult it becomes to admit failure.

We found, on average, a 40% likelihood of disbursing the remaining funds when 30% of costs were already spent; this increased to 49% when 70% of the costs were already invested. Interestingly, people also reported significantly higher likelihood that others in their organization would disburse the remaining funds, suggesting that individuals may be influenced by what they believe is the norm in their organizations.



People take more risks when they believe there is nothing to lose.

Respondents were 45% more likely to select the risky option when the decision problem was framed as a loss. 22% of the respondents assigned to the gains frame selected the risky policy option while 65% of the respondents assigned to the losses frame did the same.

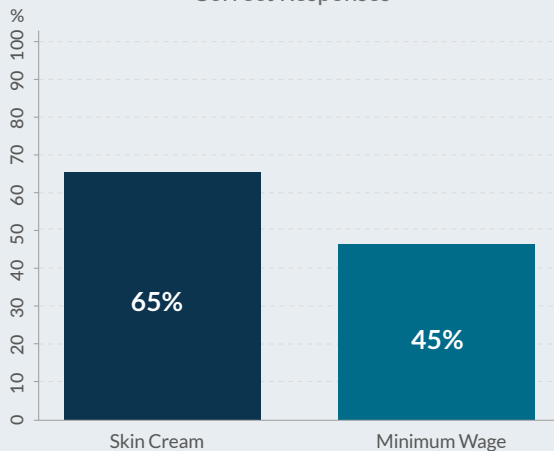


Debating and exchanging ideas with others improves accuracy.

In a follow-up experiment with a small sample of DFID staff, we tested whether deliberation can improve decision-making. Respondents were asked to answer the same questions – first individually, and later in pairs, following a brief period of deliberation. Deliberation improved accuracy by 12% for the confirmation bias experiment, and the sunk cost bias was completely mitigated. However, no real changes were observed in the results of the framing experiment, probably because there isn't a right answer in this case, unlike the first two experiments.

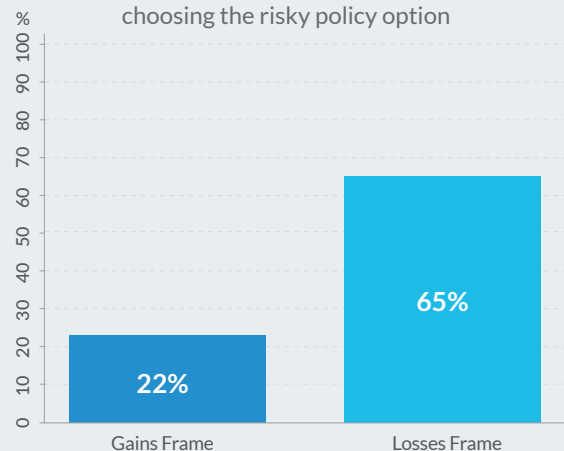
CONFIRMATION BIAS

Correct Responses



FRAMING BIAS

Percentage of respondents choosing the risky policy option



A woman with blonde hair, wearing a dark blazer, is looking slightly to the right of the camera. She is in a meeting or office setting, with other people blurred in the background. The image has a blue tint.

Policy Implications

As our findings show, policy professionals, like everyone else, are subject to cognitive biases. But because policy makers' decisions often have large effects on the lives of citizens, it is especially important to create mechanisms that check and correct for these biases and blind spots.

Some procedures can help mitigating biases, such as “*red teaming*” major decisions (e.g., implementing mock adversarial arguments, as in playing the “*devil's advocate*,” or war games to identify the

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strengths and weakness of different courses of action or views), “*dogfooding*” products and services (e.g., sampling the products and services that consumers or citizens use before rollout), prediction tournaments, and group deliberation.

As behavioral economists, a lot of our time and efforts are dedicated to understanding underlying cognitive biases, schemas, and heuristics that prevent beneficiaries from engaging in a desired behavior. It's time we start doing the same with ourselves.

About eMBeD

The Mind, Behavior, and Development Unit (eMBeD), the World Bank's behavioral science team in the Poverty and Equity Global Practice, works closely with project teams, governments, and other partners to diagnose, design, and evaluate behaviorally informed interventions. By collaborating with a worldwide network of scientists and practitioners, the eMBeD team provides answers to important economic and social questions, and contributes to the global effort to eliminate poverty and enhance equity.

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