



Effects of goal clarity on the use of information in decision-making processes: the case of beyond-GDP indicators

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CONTEXT

Information cues are so important that variations in the type, content and amount of information lead to different decisions as do graphical and format variations in how the information is presented (Cardinaels & van Veen-Dirks, 2010). Those ideas provide the theoretical bedrock for the evidence-based decision-making approach, where information is seen 'linearly': more and better information lead to improved decisions (Malbon & Parkhurst, 2023). The reality is that this rarely occurs, policy-makers often make different uses of the information provided from the 'linear' vision of the evidence-based approach. For instance, personal beliefs are believed to play a critical role in using evidence. This discrepancy significantly impacts how policies and decisions can be affected by providing additional and/or alternative evidence. For example, environmental sustainability movements advocate that a change in the set of indicators used to make decisions, including social and environmental metrics, can potentially promote adopting sustainable policies. However, when alternative indicators reach the decision-making process stage, there is mostly no significant impact on the policy outcomes (Lehtonen et al., 2016).

PURPOSE

Research is needed to improve our understanding of indicators' influence on decision-making (Corlet Walker et al., 2020) and, more generally, on the factors affecting the use of evidence and information in decision-making processes (Malbon & Parkhurst, 2023). In particular, the literature on social and sustainable indicators has hypothesised the existence of decision-making barriers consisting of individual worldviews, personal interests and socio-institutional constraints, in line with the general literature on complex and dynamic decision-making. This work will investigate the relationship and interactions between indicators, decisions and worldviews through an experiment that isolates decision-makers from socio-institutional constraints and personal interests. We hypothesise that whereas in experimental contexts, participants have clear goals, in real life, the decision-makers the evidence-based approach aims to engage with often deal with unclear goals. This can be one of the factors explaining the discrepancy between theory and observed reality.

APPROACH

A computer-based decision-making experiment design has been selected to investigate the role of sustainability indicators, and of evidence in general, in dynamic decision-making processes. Participants will be asked to be the leader of a fictional human settlement and to allocate a pre-set amount of monetary resources to economic growth or environmental sustainability policies with the support of a dashboard of indicators. Participants will be divided into four groups in a 2x2 design with two different indicator dashboards and two different types of goals. For the indicator dashboards, participants will be provided with different indicators on a dashboard to assess whether the provision of additional sustainability indicators affects their resource allocation decisions (extended vs reduced dashboards- IV1). For the different goal types, participants will be provided with different types of goals to achieve (unclear vs. clear goals- IV2), i.e., to lead the human settlement to progress (unclear, ambiguous goal) or to maximise the quality of life indicator provided in the dashboard (clear, specific goal), to assess whether the provision of different goals affects the allocation strategy. In addition to allocation strategies, participants' worldviews will be collected to assess if, when, and how they play a role in using evidence.

RESULTS

This is a work in progress, and data have not yet been collected. At the moment, the experimental environment is being tested in a pilot test. After implementing the suggestions collected at this stage, there will be another pilot test online and then the actual data collection process.

CONCLUSIONS

This experimental research is expected to generate insights on the discrepancy between field research reporting the limited impact of the sustainability indicators and the decision-making literature, which would incline us to think that policy-makers should be much more susceptible to the additional information provided.

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KEYWORDS

Evidence-based decision-making; experimental system dynamics; beyond-GDP.