When Ignorance is Bliss: Theory and Experiment on Collective Learning

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Abstract

Abstract: When do groups and societies choose to be uninformed? We study a committee that needs to vote on a reform which will give every member a private state-dependent payoff. The committee can vote to learn the state at no cost. We show that the committee decides not to learn the state if and only if members' preferences are more fractionalised on the state-relevant dimension than on the state-irrelevant dimension. Hence, decisions on divisive issues are likely to be made in haste, and heterogeneous societies tend to seek less information. A simple laboratory experiment confirms key results.
Extended Abstract:

The outcomes of reforms and other collective decisions are often uncertain when the decision is being made. For example, trade liberalization can help some industries while hurting other – but it is not always evident in advance which industry will gain and which will lose. A reform of higher education can induce prospective students to reallocate between degree programs, but the direction of change may be uncertain. Allocation of research funding, adoption of environmental regulations, investment in infrastructure projects, and academic hiring are some of the other examples of decisions with uncertain consequences.

In many of these scenarios, however, the decision-making body can vote to learn this information collectively. For instance, they can vote to delay the decision on the reform until more information becomes available. They can implement a pilot project before deciding on a full-scale reform. They can vote to make an official request for more information to a relevant agency. But when will the group choose to acquire information, and when will it choose to vote "in ignorance"?

This paper addresses the above question by modeling, and experimentally testing, a committee that needs to vote whether to adopt a reform. If adopted, the reform will give every member a private payoff which depends on a state of the world which can take values X and Y. Individual payoffs in each state are commonly known, but the state is initially unknown. Committee members cannot learn the state privately. However, prior to voting on the reform, the committee can vote to acquire public information about the state, at no cost.

Will the committee ever vote against learning? It is easy to see that if committee members have similar preferences, they will weakly prefer to learn the state before making the

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decision. But when preferences differ, this need not be the case. The key factor behind this outcome is that with information, the decision about the reform could be the same in either state. Ex ante, however, the decision about the reform could be different. Thus, information could move the collective decision away from the one that the majority initially prefers – so the majority votes against acquiring information.

This logic leads to the basic theoretical result of the paper: a simple characterisation of the distributions of voters' preferences under which the committee has a collective preference for ignorance. In a committee of any size, voters' preferences are described by their payoffs from the reform in the two states. Some voters prefer the reform to the status quo in both states. Others, prefer the status quo regardless of the state. We can refer to these two groups as partisans. On the other had, there are voters whose preference depends on the state. Some, prefer the reform in state X but prefer the status quo in state Y. Others prefer the reform in state Y but not in state X. We can call these two groups independent voters. The key theoretical result of the paper is that the committee will have a collective preference for ignorance if and only if the difference in size between the two groups of independent voters is smaller than the difference in size between the two groups of partisans. This result holds for a committee of any size, for all distributions of individual payoffs, and for any prior belief about the state.

One interpretation for this result is that decisions on divisive issues are likely to be made with less information. For example, suppose that a national legislature is considering a bill that would strengthen border controls. There is uncertainty over the effect this may have on the number of immigrants: on the one hand, the bill will make it harder for immigrants to enter illegally; on the other hand, immigrants who are already inside the country may be unwilling to leave, as they may be unable to return. If members of the legislature largely agree that immigration is desirable, or if they largely agree that it is undesirable, they will seek to learn more about the likely outcome. If, however, immigration is a divisive issue – some members are in favor of immigration, some are against, and the two groups are relatively similar in size – then they are likely to vote on the bill in haste, without seeking information about its effects.

Another way to interpret this result is to refer to the index of social fractionalisation, widely used in development literature. For a society divided into groups, the index of fractionalisation measures the probability that two randomly selected individuals belong to different groups. If there are only two groups, the index is higher when they are more similar in size. The paper shows that committee will have a collective preference for ignorance if fractionalisation on the state-relevant dimension of preferences is larger than fractionalisation on the state-irrelevant dimension.

We test the main theoretical result in a laboratory setting. Subjects are grouped into three-member committees. They are informed that there are two possible states of the world. Each committee is asked to choose between two options. One option gives each committee member a safe payoff, while the other gives each of them a payoff that depends on the state. State-dependent payoffs are assigned randomly, and are known to all committee members. Before voting on the option, the committee votes on whether to learn the state.

In line with theoretical predictions, we find that committees are substantially less likely to acquire information when individual preferences are more fractionalised on the state-relevant dimension than on the state-irrelevant dimension. Specifically, in the former case committees vote to learn the state approximately 30 percentage points less often than in the former case. The result holds under different costs of acquiring information as well as in the setup when acquiring information is costless; it also holds under different priors. The coefficient is robust to controlling for possible learning effects, for labelling of alternatives, and for demographic composition of committees. Individual voting behaviour also follows theoretical predictions. Furthermore, individuals with more experience in decision-making bodies, or with greater level of strategic competence, are more likely to vote as the model predicts, which presents some evidence for external validity of the model.