Choosing an Electoral Rule Behind the Veil of Ignorance:

Self-Interest or Common Good?

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Abstract

Citizens are increasingly involved in the design of democratic institutions. If they support the institution that best serves their self-interest, the outcome inevitably advantages the largest group and disadvantages minorities. In this paper, we challenge this pessimistic view with an original lab experiment in France and Great Britain. In the first phase, experimental subjects experience elections under plurality and approval voting. In the second phase, they decide which rule they want to use for an extra election. The treatment is whether they do or do not have information to determine where their self-interest lies before deciding. We find that self-interest shapes people’s decision, but so does concern for the common good. The implications are: (1) people have consistent ‘value-driven preferences’ for electoral rules, and (2) putting them behind the veil of ignorance à la Rawls leads to an outcome that reflects these values.
Introduction

Electoral rules shape the way democracy works. Since they affect the structure of partisan competition (Farrell 2011; Lijphart 1994; Sartori 1976), they have important consequences for people and societies. For example, some rules reduce electoral malpractice (Birch 2007), help fight corruption (Chang and Golden 2005), enhance the representation of women in politics (Golder et al 2017), increase redistribution towards the poor (Becher 2016; Iversen and Soskice 2006), or public spending in general (Milessi-Ferretti, Perotti, and Rostagno 2002). However, a single rule cannot achieve all these goals at the same time. There are inextricable trade-offs, like the one between fair representation and accountability (Carey and Hix 2011; Powell 2000). This makes the study of the choice of an electoral rule particularly important.

Historically, political elites have been in charge of the design of political institutions and electoral rules. Consequently, the literature on the topic have been focused on the role of parties and politicians in these processes (for a review, see Rahat 2011). However, the situation is rapidly evolving: citizens are increasingly involved in the choice of institutions, either indirectly because elites take public opinion into account when they decide, or directly via referendums, petitions and citizen assemblies (Renwick 2010). For example, in 2016 the citizens of Maine voted ‘yes’ in a referendum to replace the plurality rule by a system of instant runoff for state and congressional elections. When it looked like the political elites were taking too much time to implement the change, a group of citizens organised a petition to make sure the reform applies to the 2018 elections (The Atlantic 2018). In the last ten years, there have been dozens of referendums about electoral rules throughout the world in countries like Canada, Italy, Ireland, New Zealand, and Slovenia. There have also been several assemblies in which the government invited ‘normal citizens’ to discuss and propose reforms in Canada,
Ireland, and the Netherlands. Hence, ignoring people’s views about electoral rules cannot longer hold. In a world where citizens’ trust and satisfaction with current democratic procedures is decreasing, public demands for participating in electoral reforms is growing (Bedock 2017; Dalton 2004). Given the wide variety of effects of electoral rules for the conduct of politics, citizens should be able to choose the rules that they consider best for the common good.

Starting from these premises, we propose a study of the factors driving people’s preference for electoral rules. The literature on the topic argues that the main driver is self-interest. Since some electoral rules give an advantage to some parties, it is in the self-interest of all competitors to select the rule that maximises their chances of winning, or more generally that maximises their influence. Consequently, the electoral rule that is ultimately chosen is often in favour of the incumbent, or the group that has control over the reform process. For example, it has been argued that many European democracies went from a majoritarian to a proportional system at the turn of the 19th century because the incumbent conservative or liberal party fell threatened by socialist parties that were gaining popularity after the extension of franchise (Boix 1999; Leeman and Mares 2014). Even in countries in which there was no strong socialist movement, the incumbent party only reformed the majority system when the distribution of their supporters was geographically scattered such that proportional representation was more advantageous to them (Calvo 2008).

More recently, in France, the ruling socialist party introduced a gender parity law in 2000 knowing that this reform would increase its chances of re-election over the conservative party that had less women representatives and candidates (Fréchette, Maniquet, and Morrelli 2008). In Italy in 2005, Berlusconi replaced the mixed-member system by a proportional one to
increase competition between its partners, and preserve its domination within the centre-right coalition (Renwick, Hanretty, and Hine 2009). More generally in Europe, incumbent parties introduce rules such as electoral thresholds to make it harder for small parties to enter parliament when electoral volatility rises in favour of new parties (Nunez, Simon, and Pilet 2017).

The situation is not different when political elites ask citizens to decide on their behalf. In recent referendums about electoral rules in New Zealand and the United Kingdom, voters overwhelmingly supported the rule that was beneficial to their favourite party (Banducci and Karp 1999; Jou 2014; Riambau, Stillman, and Boe-Gibson 2017). Even in hypothetical survey questions, respondents say that they would rather use the rule that gives an advantage to their preferred party (Blais et al 2015; Aldrich, Reiffel, and Munger 2014; Wenzel, Bowler, and Lanoue 2000).

In this paper, we challenge this pessimistic view and show that, under certain circumstances, values can shape people’s preference for electoral rules. In an innovative lab experiment conducted in the United Kingdom and France, we organise elections under plurality and approval voting. Once subjects had seen the functioning and consequences of these two rules, we ask them to choose the rule that they want to use for an extra election. The treatment is whether they do or do not have information about what would maximise their personal payoff (in expectation) before making their choice. When they have this piece of information, they tend to make a self-interested choice. However, when they are behind the veil of ignorance à la Rawls (1971), they think in terms of the common good. Hence, their intrinsic values shape their choice of electoral rule. We show that subjects who believe in egalitarianism in society
are more likely to choose approval voting because that is the rule that produces the more equal distribution of payoffs.

**Values-driven preference for electoral rule**

*In the literature*

Some studies seek to gauge the effect of values on preference for electoral rules, and to compare it to that of self-interest. We define a ‘values-driven preference’\(^1\) as one for the rule that is believed to be best for society as a whole or the common good. A self-interest preference is one for the rule that is believed to be best for the individual’s well-being. The strategy that researchers use to study this topic is the following: they measure elites’ or citizens’ support for different rules, evaluate whether this support correlates with their personal values, and then they check in a regression whether this correlation holds after controlling for the personal benefits these actors can expect out of the rules. If it does, they conclude that they have values-driven preference in the sense that they support a rule that is consistent with their values.

To empirically gauge how values shapes preference for electoral rules among elites, Bol (2016) coded parties’ support for electoral rules in 23 episodes of electoral reform in established democracies. For each of these episodes, there was a clear proposal on the political agenda. He finds that parties that are more favourable to the democratic inclusion of minorities and underrepresented social groups in their electoral manifesto are also more supportive of proportional rules. Bowler, Donovan, and Karp (2006) conducted a survey with parliamentarians from Australia, Germany, the Netherlands, and New Zealand in which they ask whether they would support an electoral reform in their country, regardless of its direction.

\(^1\) We borrow the expression ‘values-driven preference’ from Renwick (2010).
They find that those who are the most left-wing (self-reported in the survey) are more supportive of reform.

At the citizen level, Wenzel, Bowler and Lanoue (2000) conducted a survey in the United Kingdom in which they ask respondents their degree of support for proportional representation and other institutional attributes. They find that people who are more favourable to consensual forms of democracy are also more favourable to a hypothetical reform of the plurality system. Some years later, Curtice and Seyd (2011) fielded a similar survey among Scottish citizens, and they show that those who are unhappy with features of the plurality system (e.g., disproportion between seats and votes) are more favourable to the mixed proportional system used in the regional parliament. Blais et al (2015) conducted a survey experiment during the 2012 presidential election in France. After letting respondents experience different rules and their consequences, they ask them to indicate the one that they like the most. They find that left-leaning people are supportive of an electoral rule that favours the centrist candidate.

Banducci and Karp (1999), followed by Riambau, Stillman, and Boe-Gibson (2017), analyse survey data from the 1993 referendum in New Zealand for which citizens had to choose between keeping the plurality rule or switching to a mixed-member system to elect the national parliament. They find that people dissatisfied with the political system and those with progressive values (rejecting death penalty, being open to immigration…) are more likely to support reform.2

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2 A few other studies indirectly analyse values-driven preference for electoral rules. Blais, Dobrzynska, and Indridason (2005) find a geographical pattern of adoptions of proportional representation in Europe at the turn of the 19th century, after controlling for self-interest explanations of the phenomenon. They argue that this is because a social normal according to which proportional rule was desirable spread across neighbouring countries on the continent at the time. Bol, Riera, and Pilet (2015) find a similar contamination pattern in Europe in the 1990s and 2000s regarding the introduction of mechanisms preventing small parties to access parliament. Shugart (2001) finds that voices start criticising electoral rules when they fail to produce the outcome for which they were designed. For example, in the United Kingdom in the 1990s, there was a growing discontent against the plurality rule as it created several lopsided oppositions unable to control governmental action.
We need to make two observations about the studies discussed in this section. First, in each of them, the authors control for how much personal benefit elites or citizens can expect out of the electoral rules. They find that values are never more powerful than self-interest variables. This is similar to what we find in our study, except that we identify conditions under which concern for the common good prevails.

Second, in some of the studies, values explain support for a change in general (Banducci and Karp 1999; Bowler, Donovan, and Karp 2007; Riambau, Stillman, and Boe-Gibson 2017). In others, they explain support for a reform in one specific direction (Blais et al 2015; Bol 2016; Curtice and Seyd 2011; Wenzel, Bowler and Lanoue 2000). These studies give a theoretical explanation for why certain values are associated with certain rules that relate to the consequences of these rules for society. For example, Bol (2016) says that parties that are favourable to the inclusion of minorities and underrepresented groups prefer a proportional representation system because it is the one that facilitates access to parliament for these groups. This is the approach that we take in our study as well. We show that egalitarianism leads to support for the electoral rule that leads to a more equal distribution of payoffs for everybody. We believe that this consideration, which rule produces the fairest outcome, is the one that is the most universal, that is, is present almost all the time in debates over electoral systems. This is also the reason why we replicate the experiment in two countries, the United Kingdom and France, to avoid potential national biases in favour of one of the two rules studied.

In this paper
We adopt a strategy similar to the studies described above: we first measure support for different electoral rules, and then we check whether this support correlates with intrinsic values
even after controlling for self-interest explanations. The key difference is that we use a lab experiment of the economics type with controlled interactions between subjects and incentivised actions. The method has gained popularity in political science over the last 10 years (see Bol 2018 for a review). In a first phase, we organise elections between experimental subjects under plurality and approval voting. In a second phase, we organise a few more elections, but we ask subjects to choose the rule. The treatment is whether they do or do not have information about how much personal benefit they can expect out of the two rules before making their choice. At the end, we ask them to report their personal views about the way society should be organised. We use the responses to these questions to measure their intrinsic values.

The advantage of lab experiments over observational studies to study preference for electoral rules is fourfold. First, observational studies as described above do not rely on any counterfactual. They analyse the world as it is, where self-interests and values co-exist. In a lab experiment, we are able to simulate this normatively-relevant counterfactual in putting people behind the veil of ignorance à la Rawls (1971). Following the tradition of social contract in political philosophy, Rawls uses the thought experiment of the veil of ignorance\(^3\) to reveal the rational source of moral reasoning. When people do not know whether an institution would personally benefit them or not, they are behind the veil of ignorance, and they need to think about the consequence of the institution for everyone. It then becomes in their self-interest to think in terms of the common good. Hence, the veil of ignorance can help design institutions that are ‘just’ in Rawls’ terms, in the sense they maximise the common good. In moral philosophy, the notion of a ‘veil of ignorance’ describes the ethical posture that Harsanyi

\(^3\) In the original version of the thought experiment, Rawls (1971) gives the example of the slavery system. If one asks a master if she is in favour of this institution, she will probably say yes. However, if you ask the same question to the same person who is behind the veil of ignorance, i.e. not knowing whether she is a master or a slave, her answer will probably be different. This thought experiment applies to all institutions with entrenched interests.
(1955) defines as “those possibly rare moments when [the individual] forces a special, impartial, and impersonal attitudes upon himself” (p.315). Note that for a question of political institution design like the choice of an electoral rule, the veil of ignorance is also pertinent for practical matters. As the electoral rule is to be used systematically in the future, people need to anticipate that with any rule, they will sometimes be on the winning side and sometimes on the losing side, just like everybody else.

Second, lab experiments allow to precisely calculate self-interest variables, and thus to better estimate how they compare to values-driven ones. In the studies presented above, the authors reconstruct a posteriori what would have been the personal benefit of elites and citizens under the different rules. Usually, they measure it in terms of seats gain/loss (e.g. Bol 2016; Riambau, Stillman, and Boe-Gibson 2017). This strategy has two problems. On the one hand, it is not clear whether this is the way people define ‘personal benefit’. For example, Cox, Fiva, and Smith (2018) show that the decision of the Norwegian government to adopt a proportional system at the turn of the 19th century was self-interested, but not related to seat share. The leaders of the incumbent party wanted to take back power over their rank-and-file deputies in introducing a party-list system. On the other hand, it is not clear whether elites and citizens are aware of how much benefit they can expect out of a reform. Electoral rules have psychological effects, in the sense that some people vote differently when the system changes (Duverger 1954). Hence, it is sometimes hard to anticipate the exact effect of a change, even for party leaders (Andrews and Jackman 2005; Pilet 2008; Pilet and Bol 2011). With a lab experiment, we overcome these problems as we specify ourselves the payoff structure. We can thus precisely measure how much personal benefit they can expect out of each rule. Also, we make them experience two rules (plurality and approval voting) in the first phase, and give them the
full details of the electoral results, so that everybody has all the information needed before choosing an electoral rule in the second phase.

Third, another key advantage of lab experiment is that subjects’ behaviour is incentivised. Depending on the decisions that they make during the study, they earn more or less money in the end. Unlike previous studies that rely on non-incentivised survey data (e.g., Blais et al 2015; Bowler, Donovan, and Karp 2006; Curtice and Seyd 2011), we can be confident that they are focused when they participate in the study, and think carefully about their action. This also decreases the possibility that they give satisficing and socially desirable answers, which is a concern with survey questions (Krosnik 1999).

Fourth, our lab experimental design is a difficult test for our hypothesis that common good shapes people’s preference for electoral rule. A behavioural lab can be seen as a micro society populated of experimental subjects who interact with each other and who are induced to think about their personal interest, as the instructions are focused on the personal monetary payoffs associated with different outcomes. In this paper, we evaluate whether the personal views that these subjects have about society affect their support for an electoral rule in the lab. If we find an effect, this will mean that the link between intrinsic values and support for electoral rule is so strong that it emerges even in the peculiar context of the lab.

The experiment

Design
Between May and June 2018, we organised 12 experimental sessions, 6 in the United Kingdom and 6 in France, with 21 experimental subjects each. The experiment is in two phases and lasts about one hour. In the first phase, we assign each subject to an ideal point on a scale going from 0 to 20 (one subject per position, uniformly distributed). There are 5 fictitious candidates (A, B, C, D, and E) that also each have an ideal point on this scale. Table 1 offers a visualisation.

Although this is never mentioned to avoid ideological bias in behaviour, we can see the 0-20 scale as the spatial left-right space. There is a far-left (A, position 0), centre-left (B, position 5), centrist (C, position 10), centre-right (D, position 15), and far-right candidate (E, position 20).

### Table 1. Positions on the 0-20 scale and payoff structure

<table>
<thead>
<tr>
<th>Subjects</th>
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<th>17</th>
<th>18</th>
<th>19</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Candidates</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>A</td>
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<td>E</td>
<td>A</td>
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<tr>
<td>Payoff if A</td>
<td>9</td>
<td>8</td>
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<td>Payoff if B</td>
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<td>8</td>
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<td>Payoff if C</td>
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<td>Payoff if D</td>
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<tr>
<td>Payoff if E</td>
<td>0</td>
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In the first phase, the subjects experience two electoral rules. There is a series of four elections under plurality, and another one of four elections under approval voting (the order randomly varies from session to session). We randomly reshuffle the subjects’ positions on the 0-20 scale at the beginning of each series, but the position of candidates remains constant. Under both rules, subjects vote simultaneously, so that they do not know how others vote when they make their decision. Under plurality, they have one vote, and the candidate with most votes wins.

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4 In the United Kingdom, we conducted the sessions in the EssexLab. In France, we conducted the sessions in the Laboratoire d’Economie Expérimentale de Paris 1. We follow the ethical requirements of both labs that include a clause of no deception. Also, we received an IRB approval from the ethical committee of King’s College London prior to the experiment.

5 Before the first phase, we read the instructions to the subjects. The complete set of instructions in English can be found in the appendix (A1). Then, we ask them a few quiz questions (non-incentivise) to make sure that everybody understand the rule. The quiz questions can be found in the appendix (A2).
Under approval voting, they approve or not each candidate, and the candidate with most approvals wins. In both instances, they cannot abstain.  

After each election, there is a single winning candidate, which determines the payoff of subjects. The intuition is that, just like in real-life elections, the closer one is from this candidate on the scale, the greater the payoff. The formula is the following:

\[
\text{Payoff} = 9 - (\text{Distance between subject and winning candidate on the 0-20 scale})
\]

With the proviso that the payoff cannot be negative. In other words, for subjects with an extreme position, it does not matter whether it is the centrist candidate or one on the other side that wins, their payoff is 0. We introduce this specificity in order to minimise the possibility that the centrist candidate always wins. When payoffs are purely degressive, in the sense that they not have a lower bound at 0, the centrist candidate becomes a strong focal point, from which subjects have no incentives to deviate. This payoff structure is also realistic: voters whose preference does not resonate with any candidate because they are too far away from them ideologically speaking are indifferent to the candidate ultimately elected (Campbell et al 1960). Table 1 also presents the payoff structure. It is important to note that subjects have perfect information. Before voting, they see the payoff associated with each candidate given their randomly-assigned position. After the election, they see the number of votes for each candidate, and the payoff of each subject.

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6 Note that under approval voting the winner is also the candidate with a plurality of approvals. The distinction is thus in how people vote, that is, they vote for one single candidate under plurality, and for as many candidates as they want under approval voting.

7 Finally, at the end of the experiment, two elections are randomly selected one in the first and one in the second phase. The number of points obtained by each subject at these two elections are averaged, and monetary gains are then calculated such as 1 point = 1 euro (France) or 3 pounds (United Kingdom). There is also a show-up fee of 10 euros (France) and 5 pounds (United Kingdom) as per lab regulations.

8 We include shots of these screens as subjects see them during the experiment in the appendix (A3 and A4).
In the second phase, we organise two series of one election. We randomly reshuffle the positions of subjects on the 0-20 scale at the beginning of each of them. The elections are the same than in the first phase, except that before voting subjects must choose whether they want to use plurality or approval voting (they cannot abstain from choosing). Each subject chooses one of the two rules. Then, we randomly pick one, and organise the election with her favourite rule. The advantage of this randomisation is that there cannot be any strategic voting in the choice of electoral rule.

The treatment is whether subjects are behind the veil of ignorance when they choose the electoral rule or not. For the first series of the second phase, the subjects are informed about their position on the 0-20 scale before they make their choice. Hence, they can determine which rule will maximise their expected personal payoff in the second phase given the result of the first phase. These are simply expected payoffs as they do not know for sure what will be the results of the extra election. Just as in real-life electoral reforms, they have to rely on past electoral results to make their decision about an electoral rule with some uncertainty about what would be the resulting electoral outcome (Andrews and Jackman 2005; Pilet 2008; Pilet and Bol 2011). In contrast, for the second series, we assign them a position after they make their choice. They are thus behind the veil of ignorance, as they do not know how much personal payoff they can expect out of the rules. As discussed above, this treatment is normatively relevant as it invites people to think in terms of common good when they choose an electoral rule. The order of the two series of the second phase varies from session to session, so that half of the subjects starts choosing behind the veil of ignorance and then choosing in

9 There is a summary of the results of the elections of the first phase on the screen on which they select the rule for the second phase. We include a shot of this screen in the appendix (A5).
knowing their position on the 0-20 scale, and vice versa for the other half. It is then a within-subject design. The dependent variable is the choice of electoral rule. In total, we have 2 countries x 6 sessions x 21 subjects x 2 choices = 504 observations.

At the end of the experiment, we ask subjects to answer a short survey containing questions about their socio-demographic profile (age, gender, level of education) and their personal views about the way society should be organised. In particular, we ask a classic battery of questions eliciting their degree of egalitarianism (see section below).

**Expectations and hypotheses**

Our study focuses on two electoral rules: plurality and approval voting. On the one hand, plurality is the probably the most studied of all electoral rules in political science and other sister disciplines like economics. It is the one that gave birth to the main theories regarding political competition (Downs 1957). Approval voting on the other hand is a rule that is less known. It is almost never used in real-life elections. However, it has attracted the attention of many researchers because it is often considered as producing outcomes closer to voters’ preferences (Laslier and Sanver 2010).

We select plurality and approval voting for two main reasons. First, both rules are straightforward and simple. This is an important criterion as they need to be fully understood by subjects during the first phase of the experiment. Other rules are more complex and sometimes hard to transpose in a lab setting. For example, proportional representation supposes a payoff structure that accounts for both parliamentary representation (number of points proportional to proportion of votes received by each candidate) and coalition government (some bonus points for candidates who have majority of votes all together) (Kamm 2017). This
is also the reason why our experiment does not include more than two rules and why the payoff structure is simply linear.

Second, we select plurality and approval voting because the two rules are a priori likely to lead to different results in terms of winning candidates during the first phase of the experiment. Both have centripetal incentives in the sense that they give a clear advantage to the centrist candidates (B, C, and D). People with extreme ideological positions should strategically vote for (or approve) them instead of the extreme candidate that is closer to them (Brams and Fishburn 1978; Cox 1997; Baujard et al 2014). Consequently, we expect, like in other lab experimental studies with similar designs, that these extreme candidates rarely win (Van der Straeten et al 2010). However, we also expect some variations regarding the centre candidates (C). Since the payoff structure is bounded at 0 (see above), extreme voters are likely to vote for (or approve) other candidates than C. Even those who have a slightly more moderate positions will adopt this strategy to increase their payoff, especially under approval voting because they can approve several candidates. With our design, approval voting should lead to more variation in terms of winning candidates than plurality. In particular, candidates B and D should win more often under approval voting than under plurality.

As mentioned above, the dependent variable is the choice of electoral rule by subjects in the second phase, and the treatment is whether they know their position before making this choice or are behind the veil of ignorance. The experiment is a within-subject design, which means that each subject experiences both conditions one after the other (the order is random across experimental sessions). We do not have any hypothesis regarding the treatment effect per se, but we have hypotheses about the conditional impact of self-interest and values depending on this treatment.
First, we expect that when subjects know their position on the 0-20 scale, they self-interestedly select the electoral rule that gave the largest payoff to their position during the first phase. The assumption is that they learn the consequences of the two rules during the eight elections of first phase, in particular which one favours which candidate(s), and that they use this information to make a rational decision in the second one. As we show below, some candidates are strongly advantaged by some rules. It is then in the subjects’ self-interest to select the rule that favours the candidate closest to them on the 0-20 scale. Note that this scale is perfectly symmetric. Hence, if subjects are perfectly rational, they understand that a rule that favours a certain candidate also favours the one that has a symmetric position. For example, if the candidate B (position 5) wins often under a certain rule, candidate D (position 15) is as likely to win under this rule. We thus calculate a variable that we call ‘Rational Benefit’ such as:

\[
\text{Rational Benefit}^{10} = \frac{(\text{Points obtained by the subject’s position (and its symmetric position) during the first phase under approval voting} - \text{Points obtained by the subject’s position (and its symmetric position) during the first phase under plurality})}{2}
\]

We expect this variable to be positively associated to choosing approval voting over plurality. The first hypothesis is the following:

**H1 (self-interest).** When subjects know their position on the 0-20 scale, they are more likely to choose the electoral rule that gives the largest payoff to this position (and its symmetric position) in the first phase.

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10 Except for position 10 that is central, and hence does not have any symmetrical position. For position 10, the formula is: Points obtained by the subject’s position during the first phase under approval voting – Points obtained by the subject’s position during the first phase under plurality.
Second, we expect that when subjects are behind the veil of ignorance they consider the common good when they choose an electoral rule. Here as well, we assume that they learn the consequences of the two rules during the eight elections of the first phase and that they use this information to make a decision. However, since they do not know their position on the 0-20, they need to consider the consequences for the entire experimental group. In a controlled setting like ours, the main consequence of the rules is the distribution of payoffs. Depending on which candidate wins, and how many times, the distribution can be more or less equal. As discussed above, we expect approval voting to lead to greater variation in electoral outcomes and therefore to a more equal distribution of payoffs, and subjects to observe this pattern in the first phase of the experiment.

We then hypothesise that subjects who have intrinsic egalitarian values outside are more likely to choose approval voting in the second phase because it leads to a more equal distribution of payoffs than plurality. To measure egalitarianism, we ask them questions about the way society should be organised at the end of the experiment. These questions, standard in survey studies aiming at measuring egalitarian values (e.g. Feldman 1988)\textsuperscript{11}, are:

“To what extent do you agree with the following statements (strongly agree/agree/neither agree, nor disagree/disagree/strongly disagree):

1. If people were treated more equally in this country, we would have many fewer problems
2. We should give up on the goal of equality, since people are so different to begin with
3. Some people are better at running things and should be allowed to do so”

\textsuperscript{11} Note that these items have been included in the National Election Studies since the mid-1980s to capture egalitarianism.
Subjects who strongly agree with item (1) and (3), and strongly disagree with item (2), are consider as strongly egalitarian. We sum up the answers to these three items to construct an index that we call ‘Egalitarianism’. The second hypothesis is the following:

**H2 (common good).** When subjects are behind the veil of ignorance, the more egalitarian they are the more likely they choose approval voting over plurality because it is the rule that leads to the most equal distribution of payoffs.

In a final stage of our analysis, we conduct a supplementary analysis to probe the mechanism behind the second hypothesis. In none of the elections of the first phase does approval voting produce a less equal distribution of payoffs than plurality (see below). However, the difference between the two is not always the same. In some sessions, the distribution is (almost) as equal under both rules, whereas in others approval voting leads to a much more equal outcome. Hence, we estimate whether, behind the veil of ignorance, the effect of egalitarianism on the probability to choose approval voting increases when the difference between plurality and approval voting in terms of equal distribution of payoffs increases.

**Results**

*First phase*

---

12 In our sample of experimental subjects (N = 252), the Cronbach Alpha for this index is 0.41. When we run a factor analysis, each item is loaded at more than 0.50 in the first factor, which has an eigenvalue of 1.18. In the original questionnaire, there is a fourth item: “one of the big problems in this country is that we don't give everyone an equal chance.” We do not include it in the index because it reduces the Cronbach Alpha to 0.30, and it is only loaded at 0.33 on the first factor.
The first step is to analyse the result of the elections of the first phase of the experiment. In Table 2, we report the proportion of votes and approvals obtained by each candidate, and the proportion of times that they win. Since subjects have multiple approvals under approval voting and only one vote under plurality, the two are not comparable. Hence, we calculate a standardised vote distribution under approval voting in dividing the number of approvals received by each candidate by the number of approvals given in total (2,040, that is around 2.02 per election per subject). This is also reported in Table 2.

Table 2. Electoral results in the first phase

<table>
<thead>
<tr>
<th></th>
<th>Candidate A</th>
<th>Candidate B</th>
<th>Candidate C</th>
<th>Candidate D</th>
<th>Candidate E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plurality</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Votes</td>
<td>7%</td>
<td>23%</td>
<td>37%</td>
<td>29%</td>
<td>4%</td>
</tr>
<tr>
<td>Wins</td>
<td>0%</td>
<td>10%</td>
<td>65%</td>
<td>25%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Approval Voting</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approvals</td>
<td>28%</td>
<td>46%</td>
<td>54%</td>
<td>47%</td>
<td>27%</td>
</tr>
<tr>
<td>Votes (Standardised)</td>
<td>13%</td>
<td>23%</td>
<td>27%</td>
<td>23%</td>
<td>14%</td>
</tr>
<tr>
<td>Wins</td>
<td>0%</td>
<td>19%</td>
<td>62%</td>
<td>19%</td>
<td>0%</td>
</tr>
</tbody>
</table>

N = 48 elections under plurality, 48 elections under approval voting.

In line with our expectation, the two electoral rules have strong centripetal incentives. The centrist candidate (C) is the one that gets the most votes/approvals, and wins the most (more than 60%). In contrast, the extreme candidates (A and E) are those that get the least votes/approvals, and never win. However, we also see difference between the two rules regarding the centre candidates. C wins slightly more often under plurality (65%, compared 62% under approval voting) to the detriment of B and D. This reflects the distribution of voting choices: C receives fewer votes under approval voting (27% (standardised), compared to 37% under plurality), whereas A and E receives more votes (27% all together (standardised), compared to 11% under plurality). To confirm these findings, we report in the appendix (A6)
the results of a conditional logit model predicting the subject’s vote for (or approval of) a given candidate by her distance to this candidate and the nature of the candidate for each electoral rule (A, B, C, D, and E). We observe that in both instances distance is an important predictor, and that C is more likely to be supported than other candidates. The main difference between the two rules is that the probability to vote for (or approve) B and D is larger under approval voting than under plurality. This confirms our expectation regarding the results of the first phase of the experiment.

Our second hypothesis supposes that the distribution of payoffs is more equal under approval voting than under plurality because there is more variation in the winning candidates. On average, there are two candidates winning over four elections under approval voting, and 1.33 under plurality. To test whether this variation leads to a more equal payoffs distribution, we use two indicators: the standard deviation of the payoff distribution over the four elections, and the number of subjects that receive more than 0 point at these elections. In Table 3, we report the descriptive statistics of these indicators. We observe that, as expected, plurality leads to a less equal payoff distribution. On average, standard deviation is substantially smaller under approval voting (9.77, compared to 11.29 under plurality), and the number subjects with at least one point larger (19 compared, compared to 17.58 under plurality). What is more the we show that in none of the experimental session plurality produces to a more equal payoff distribution. In the most extreme case, both rules are as equal as each other. However, in others, the difference can go up to -1.51 in standard deviation and +5 in the number of subjects with points. We use this variation to probe the mechanism behind the second hypothesis below.\textsuperscript{13}

\textsuperscript{13} Note that, in the aggregate, both rules are associated to similar gains for subjects. Over the four elections of the first phase, they make on average 15 points. Within sessions, the difference between the number of points under plurality and approval voting is never larger than 0.02.
Table 3. Payoff distributions in the first phase

<table>
<thead>
<tr>
<th>Standard Deviation of Payoffs Distribution</th>
<th>Mean</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approval Voting</td>
<td>9.77</td>
<td>7.17</td>
<td>11.88</td>
</tr>
<tr>
<td>Plurality</td>
<td>11.29</td>
<td>9.51</td>
<td>12.87</td>
</tr>
<tr>
<td>Approval – Plurality (within sessions)</td>
<td>-1.51</td>
<td>-3.35</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Subjects with &gt; 0 Points</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Approval Voting</td>
<td>19</td>
<td>17</td>
<td>21</td>
</tr>
<tr>
<td>Plurality</td>
<td>17.58</td>
<td>14</td>
<td>19</td>
</tr>
<tr>
<td>Approval – Plurality (within sessions)</td>
<td>1.42</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

Second phase

In the second phase, we ask all subjects to choose the rule for an extra election either knowing their position on the 0-20 scale or behind the veil of ignorance. In total, subjects choose approval voting 61% of the time. There is no difference across treatments (60% when they know their position, 62% behind the veil), nor across countries (62% in France, 60% in the United Kingdom). Incidentally, this piece of evidence goes against the idea that people have a bias in favour of the electoral rule used in their country.

To test our hypotheses, we run a logistic regression predicting the probability to choose approval voting (instead of plurality). The main independent variables are: ‘Rational Benefit’ and ‘Egalitarianism’ as defined above. Although we want to keep the model as parsimonious as possible, as standard in experimental analysis, we need to include several control variables to control for potential cofounding effects. First, we add a variable called ‘Psychological Benefit’, which is simply the difference between the number of points obtained by the subject under approval voting and plurality in the first phase. This is different from ‘Rational Benefit’, as it does not consider the position of the subject in the second phase. It is not because a subject wins a lot in the first phase under one rule that she will also win a lot under this rule in the second phase. It all depends on her position. Second, we add dummy variables capturing the
treatment (knowing their position or behind the veil of ignorance) and the country of the experiment (France or United Kingdom).

In Table 4, we report the results of four regressions. In the first, we pool the observations and use all the independent variables presented above. In the second, we reduce the sample to the choices made when subjects know their position on the 0-20 scale (no veil). In the third, we do the same in reducing the sample to the choices made when there are behind the veil. In the fourth, we pool all the observations again, but we add interactions between the treatment (no veil/veil) and main independent variables.

Table 4. Main regressions for the second phase

<table>
<thead>
<tr>
<th></th>
<th>(Pooled)</th>
<th>(No Veil)</th>
<th>(Veil)</th>
<th>(Interactions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rational Benefit</td>
<td>0.015**</td>
<td>0.020*</td>
<td>0.008</td>
<td>0.020*</td>
</tr>
<tr>
<td></td>
<td>(0.007)</td>
<td>(0.011)</td>
<td>(0.011)</td>
<td>(0.012)</td>
</tr>
<tr>
<td>Egalitarianism</td>
<td>0.019*</td>
<td>0.013</td>
<td>0.025**</td>
<td>0.010</td>
</tr>
<tr>
<td></td>
<td>(0.011)</td>
<td>(0.012)</td>
<td>(0.012)</td>
<td>(0.013)</td>
</tr>
<tr>
<td>Psychological Benefit</td>
<td>0.007***</td>
<td>0.008***</td>
<td>0.006***</td>
<td>0.007***</td>
</tr>
<tr>
<td></td>
<td>(0.002)</td>
<td>(0.002)</td>
<td>(0.002)</td>
<td>(0.002)</td>
</tr>
<tr>
<td>Veil</td>
<td>0.019</td>
<td></td>
<td>-0.124</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.034)</td>
<td></td>
<td>(0.116)</td>
<td></td>
</tr>
<tr>
<td>United Kingdom</td>
<td>-0.029</td>
<td>-0.112*</td>
<td>0.054</td>
<td>-0.029</td>
</tr>
<tr>
<td></td>
<td>(0.049)</td>
<td>(0.059)</td>
<td>(0.060)</td>
<td>(0.049)</td>
</tr>
<tr>
<td>Rational Benefit x Veil</td>
<td></td>
<td></td>
<td>-0.013</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.018)</td>
<td></td>
</tr>
<tr>
<td>Egalitarianism x Veil</td>
<td></td>
<td></td>
<td>0.017</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.013)</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>504</td>
<td>252</td>
<td>252</td>
<td>504</td>
</tr>
</tbody>
</table>

Note: Entries are marginal effects from logit regression predicting the probability of choosing approval over plurality. Standard errors, clustered by subject for the first and last columns, are in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01 (two-tailed).

From Table 4, we observe that both Rational Benefit and Egalitarianism increases the probability to choose approval voting over plurality when we pool the observation. The effects are statistically significant at a level of p<0.1. This pattern appears even more clearly when we...
separate the two choices depending on the treatment variable. When subjects know their position on the 0-20 scale, the effect of Egalitarianism is smaller and not statistically significant, whereas the effect of Rational Benefit becomes larger ($p<0.1$). Exactly the opposite happens behind the veil of ignorance. Rational Benefit stops having an effect statistically distinct from 0, which is normal given that subjects do not know their position, whereas Egalitarianism has a large and statistically significant effect ($p<0.05$). The last column of Table 4 confirms these results. Although the interactions between the treatment (no veil/veil) and the independent variables are not statistically significant, they all go into the expected direction. For example, the interaction between Egalitarianism and the treatment is large and positive.$^{14}$

To facilitate the interpretation of the effect, we plot the marginal effect of both Rational Benefit and Egalitarianism with and without the veil of ignorance based on the estimates of the regression ‘Interactions’ of Table 4. From Figure 1, we see that the effect of Rational Benefit is small and not statistically significant from 0 behind the veil of ignorance. However, the effect becomes larger and statistically significant ($p<0.1$) when there is no veil. Inversely, the effect of Egalitarianism is small and not statistically significant when there is no veil, and large and statistically significant ($p<0.05$) when there is one.

**Figure 1. Effect of Rational Benefits and Egalitarianism with and without veil**

$^{14}$ In the appendix (A7), we reproduce the same regressions in adding further control variable. In the questionnaire at the end of our experiment, we ask questions about the subject’s age, gender, total number of education years, and interest in politics (on a scale from 0 ‘not interested at all’ to 10 ‘very interested’). The results remain essentially similar.
Note: Entries are marginal effects based on model ‘Interactions’ of Table 4. The thick line is the 90%-confidence interval, the thin line is the 95%-confidence intervals.

To assess the magnitude of these effects, we plot the predicted probabilities of the dependent variable using the estimates of the regression ‘Interaction’ in Table 4. Each time, we show the variation between the empirical minimum and maximum of the independent variable. Figure 2 shows that, when subjects know their position on the 0-20 scale, their probability to choose approval voting increases from 40% when it is plurality that is expected to give them a much better personal payoff to 80% when it is approval voting. The probability of choosing approval voting goes from 37% for subjects who are not egalitarian at all and 73% for those who have strong egalitarian values. The effect of the variable is flat when subjects are not behind the veil. We thus find strong evidence for both H1 and H2: subjects are self-interested when they know their position and value-driven when they are behind the veil of ignorance.

**Figure 2. Magnitude of the effect of Rational Benefit and Egalitarianism**
Note: Entries are predicted probabilities based on model ‘Interactions’ of Table 4. Shaded areas are 95%-confidence intervals. White histograms are distribution of the independent variable (Rational Benefit and Egalitarianism).

Before showing the analysis aimed at probing the mechanism behind H2, we want to make a few remarks regarding the effect of other variables in Table 4. First, the psychological benefit seems to be a key variable under both treatment conditions (although its effect is small). Subjects who experience a greater payoff under a certain rule in the first phase are more likely to choose this rule in the second phase, regardless of their position. There are two explanations for this effect: either the subjects use this a crude and non-sophisticated cue to evaluate what is the best electoral rule for them or they are not particularly focused during the experiment and do not always notice it when their position changes. Second, subjects in the United Kingdom are less likely to choose approval voting when they are behind the veil of ignorance. There seems to be a bias in favour of the electoral rule currently used in the country, but only if and when they are informed about where their self-interest lies.
As final step of the analysis, we probe the mechanism behind H2. As presented above, approval voting always leads to more equal (or as equal) payoff distributions during the first phase of our experiment. However, there is some variation: in some sessions, the difference between the two is small, in others it is larger. Hence, we can expect that, behind the veil of ignorance, egalitarianism has a stronger effect when approval voting produces a much more equal outcome than plurality. To test this hypothesis, we replicate the regressions ‘No Veil’ and ‘Veil’ in Table 4 in adding one of two measures of payoff equality presented above as independent variables (standard deviation of payoff distribution and number of subjects with more than 0 point) and an interaction between this variable and Egalitarianism.\textsuperscript{15} The full results are presented in the appendix (A8). In Figure 3, we show the marginal effect of Egalitarianism as the payoff equality under approval voting compared to plurality changes from its empirical minimum to its empirical maximum.

From the left panel of Figure 2, we observe that Egalitarianism has no effect on the probability to choose approval voting when subjects know their position (Figure 2, left panel). The 95%-confidence interval shows that it is never statistically distinct from 0 regardless of the difference in payoff equality. However, the right panel shows that, behind the veil of ignorance, Egalitarianism has a strong and statistically significant effect at a level of $p<0.05$, when approval voting produces much more equal outcome than plurality during the first phase (difference in standard deviation of -13.41, or in number of subjects with points of +5), In contrast, the effect becomes 0 and statistically insignificant when the two rules lead to similarly (or almost similarly) equal payoffs. This supports our interpretation that the reason why egalitarian subjects support approval voting is because the rule produces more equal payoffs.

\textsuperscript{15} We do not replicate the regression ‘Interaction’ of Table 4 here because it would require a triple interaction, which is too demanding given our small sample size.
Table A8 in the appendix show that the interactions are statistically significant at a level of $p<0.05$.

**Figure 2. Effect of Egalitarianism as payoffs becomes more equal**

Note: Entries are marginal effects of Egalitarianism as difference in payoff equality (approval voting compared to plurality) varies. Dotted lines are 95%-confidence intervals.

**Conclusion**

Electoral rules are key to democracy. They have important economic and social consequences for societies, and underlie system legitimacy as a whole. According to both the conventional wisdom and scientific literature on the topic, the political elites self-interestedly choose the electoral rule that maximises their power over the decision-making process when they design political institutions. This creates a non-democratic distortion, as it means that the incumbent group is advantaged. However, citizens are increasingly involved in the design of electoral...
rules. Yet, the situation is not necessarily better when elites give away their engineering power if the citizens simply vote for the rule that benefit their favourite party.

In this study, we show that the situation is not that desperate, and that people choose what they consider best for the common good when they are put in the right conditions. In an original experiment conducted in the United Kingdom and France, we organise elections between small groups of individuals to elect fictitious candidates under plurality and approval voting. After experiencing the two rules and their consequences, we ask them to choose the rule that they want to use for an extra election. The treatment is whether they are behind a veil of ignorance à la Rawls (1971) at time of deciding. We show that self-interest shapes their choice of an electoral rule when they are informed about where their self-interest lies, but that concern for the common good prevails when they are not informed. In particular, people who have egalitarian values about the way society should be organised support approval voting because it is the one that leads to the most equal distribution of payoffs.

Our study has empirical, methodological, and normative implications. From an empirical point of view, we contribute to the growing literature on electoral reform in showing that, next to self-interest, values also affect people’s preference for electoral rules in the sense that they consider their consequences of these rules for society as a whole. From a methodological point of view, we propose an innovative design, based on Rawls’ (1971) thought experiment, to evaluate people’s preference for institutions. In a lab experiment, researchers can put people behind a veil of ignorance and reveal their preference when they consider the best interest of the community. From a normative point of view, we show that choosing an electoral rule that fits people’s values is possible. In reality, it is almost never possible to put people behind a veil
of ignorance. However, there are ways to make them think carefully about the consequences of electoral rules for society.

For example, recently in Canada, Ireland or the Netherlands, the political elites have organised assemblies of ordinary citizens to discuss the necessity and desirability of electoral and institutional reforms in their country for several weeks, sometimes several months. These deliberative mini-publics are promising avenues to overcome the problem of entrenched interests in institutional design, as people have the time to think about the consequences of these institutions for society. A comprehensive analysis of how members of citizen assemblies in Canada and the Netherlands decided which electoral system to recommend for elections in their country shows that their choices “were indeed anchored by general values” (Fournier et al 2011, p. 92), and, most importantly, “assembly members appear to have been completely unmoved by their personal partisan inclinations” (Ibid, p. 85). While there is no doubt that most of the time partisan preferences do shape people’s views about electoral systems, there are also contexts where broad values about society and polity come into play as well and sometime even trump partisan considerations.
References


Choosing an electoral rule behind the veil of ignorance:

Self-interest or common good?

Appendix

A1. Slides and instructions
A2. Quiz questions
A3. Screenshot: Voting screen
A4. Screenshot: Result screen
A5. Screenshot: Choice of electoral rule screen
A6. Conditional logit regressions
A7. Regressions with control variables
A8. Full regression results for analysis aiming at probing the mechanism
A1. Slides and instructions

Thank you for agreeing to participate in this research experiment. This is an experiment about elections and voting systems.

You are going to participate in 10 elections. In each election, you have the option to vote for one or multiple parties. At the end of the experiment, you will get a 5£ for your participation, plus a sum which will depend on your choices and the results of the elections. The sum of money you will earn during the session will be given privately at the end.

From now until the end of the experiment you cannot talk to any other participant. If you have a question, please raise your hand and I will answer your questions privately.

This experiment should take about 1 hour. Before starting the experiment, I am asking to take a minute to read and sign the consent form.

There will be 4 series of elections. I will explain the specific rules of these series later.

First, I will explain the main rules that are common to all elections. These rules apply to the entire experiment. At the beginning of each series of elections, you will be assigned a random position. This position is redefined at the beginning of each series and is stable for the elections of the series.

Your position is represented by a number between 0 and 20. There will be one participant per position. It is then impossible for two participants to have the same position.
On the screen, you see a visual representation of the position of the participant. Each participant will be randomly assigned to a position on the 0-20 scale. This position will be stable for all the elections in a given series.

For each election, there are 5 parties. Parties also have a position on the 0-20 scale. The parties keep the same position for all the elections.

On the screen, you see a visual representation of the position of the parties. You see that party A is on the position 0, party B on the position 5, party C on the position 10, party D on the position 15, and party E on the position 20.
At each election, you will have to vote for one or more parties. After you have voted, the program counts the votes and determines which party wins the election. If there is a tie between parties, the program will randomly choose a winner among the tied parties. The winning party is based on the voting system, which is different depending on the series. I will explain that later.

At each election, you have the opportunity to earn points. The number of points earned depends on your position and the position of the winning party.

The number of points earned is 9 minus the distance between your position and the position of the winning party. For example, it is the distance between you and the winning party is 1, you will earn 8 points. If the distance is 5, you will earn 4 points.

Note that if the distance is higher than 9, you will receive 0 point. There is no negative point.

On the screen, you see a visual example of the distribution of points. Imagine that the program gives you the position 17 and that party D wins. Party D is located at the position 15. Your distance to the winning party is 2 then. You earn 9 minus 2, that is 7 points.
Now imagine that party C wins. Party C is located at the position 10. Your distance to the winning party is 7 then. You earn 9 minus 7, that is 2 points.

Finally imagine that party B wins. Party B is located at the position 5. Your distance to the winning party is 12 then. You earn 9 minus 12, that is 0 point.

At the end of the experiment, 3 elections will be randomly selected by the program. The computer will calculate the average of the points you get in these elections, then round up the value. The computer will then convert the points into pounds. Each point is worth 3£. Depending on your decisions and the decisions of others, you can earn up to 32£.
This is all for the main rules. Now I will explain the rules specific to the first series of 4 elections. What is specific to this series is the voting system. For the first series, you will use the plurality system.

With the plurality system, you must vote for one of the five parties. Then, the party with most votes wins the election. After each election, you will see the full results of the election on your screen. You will see the votes received by each party, and the number of points earned by each participant in the room.

Your position will appear at the top of your screen. Remember that the closer your position is to the position of the winning party, the more points you earn. The number of points earned is 9 minus the distance between you and the winning party.

You are now going to proceed with the first series of 4 elections with the plurality system. Before that, you will have to answer to a short quiz about the rules of the experiment that I just explained. There is no point associated to this quiz.

After that, there will be a series of 4 elections. During the 4 elections, you can check the screen to see the distribution of positions and the position of parties.
The first series is now over. Now, you are going to proceed with the second series of 4 elections. The main rules still apply for this series. What changes is the voting system. For this series, we will use the approval system.

With the approval system, you can vote for as many parties as you want. You vote for all the parties that you would like to win. So, you can vote for up to five parties. Click the button next to the names of the parties you want to support and click ‘continue’ when you are done. You must vote at least one party. Then, the party that receives the most votes wins the election.

After each election, you will see the full results of the election on your screen. You will see the votes received by each party, and the number of points earned by each participant in the room.

Your position will appear at the top of your screen. Be careful, it may differ from the position you had during the previous series. Remember that the closer your position is to the position of the winning party, the more points you earn. The number of points earned is 9 minus the distance between you and the winning party.

You are now going to proceed with the second series of 4 elections with the approval system. Before that, you will also have to answer to a short quiz the rules of the experiment that I just explained. There is no point associated to this quiz.
After that, there will be a series of 4 elections. During the 4 elections, you can check the screen to see the distribution of positions and the positions of parties.

This is now the second part of the experiment.

At this point, we have used two voting systems: the plurality system, and the approval system.

In the second part of the experiment, we will organize two extra elections. For these elections, you will choose the voting system that you want to use.

Before each of these last two elections, you will choose one of the two voting systems used in the first part. Then, the computer will randomly select one of participants in the room. The preferred voting system of this randomly selected participant will be used in the next election. This election will work exactly as elections worked in the first part of the experiment.
For this first extra election, you know your position on the 0-20 scale before choosing the voting system. It appears at the top of your screen. Be careful, it may differ from the position you had during the previous series.

You are now going to proceed with the choice of voting system and then the first extra election. To help your make a decision, a summary of the specific rules of each voting system will appear on your screen. We will also give you a summary of the results of the elections organized with each system during the first part.

Remember that the closer your position is from the position of the winning party, the more points you earn. The number of points earned is 9 minus the distance between you and the winning party.

You are now going to proceed with the choice of voting system and then the second extra election.

For this second extra election, you do NOT know your position on the 0-20 scale before choosing the voting system. This position will appear at the top of your screen after you choose the voting system. Be careful, it may differ from the one you had during the previous series. Remember that the closer your position is to the position of the winning party, the more points you earn. The number of points earned is 9 minus the distance between you and the winning party.

To help your make a decision, a summary of the rules of each voting system will appear on your screen. We will also give you a summary of the results of the elections organized with each system during the first part.

The experiment as such is over. Before proceeding with the payment, we will ask you to answer a short questionnaire about your socio-demographics characteristics and your opinion on some topics.

Thank you for participating in this experiment.
A2. Quiz questions

Quiz question 1 (plurality)

Imagine the following electoral results:
   Party A: 4 votes
   Party B: 7 votes
   Party C: 3 votes
   Party D: 6 votes
   Party E: 1 vote

Which party wins the election?
   Party A
   Party B
   Party C
   Party D
   Party E

Answers:
[If Party B] Yes, party B wins because it is the one with most votes.
[If other party] No, party B wins because it is the one with most votes.

Quiz question 2 (plurality)

Is the following statement true or false?

“If my position on the 0-20 scale is 17, that I voted for party C (position 10), and that the winning party is party B (position 5), I earn 9 points minus the distance between my vote and the position of the winning party. It is 9 – 5 = 4 points.”
   True
   False

Answers:
[If False] Yes, the statement is false. The number of points you earn is a function of the distance between the position of the party and your position, not your vote. If your position is 17 and the winning party is B (position 5), you earn 9 – 12 = 0 point (points cannot be negative).
[If True] No, the statement is false. The number of points you earn is function of the distance between the position of the party and your position, not your vote. If your position is 17 and the winning party is B (position 5), you earn 9 – 12 = 0 point (points cannot be negative).
Quiz question 1 (approval voting)

Imagine the following electoral results:
- Party A: 10 votes
- Party B: 3 votes
- Party C: 4 votes
- Party D: 15 votes
- Party E: 13 votes

Which party wins the election?
- Party A
- Party B
- Party C
- Party D
- Party E

Answers:
[If Party D] Yes, party D wins because it is the one with most votes. Note that since you have multiple votes, the total number of votes is larger than the total number of participants in the room.
[If other party] No, party B wins because it is the one with most votes. Note that since you have multiple votes, the total number of votes is larger than the total number of participants in the room.

Quiz question 2 (approval voting)

Is the following statement true or false?

“If my position on the 0-20 scale is 13, that I voted for party D (position 15) and party E (position 20), and that the winning party is party D (position 15), I earn 9 points minus the distance between my position and the one of the winning party. It is $9 - 2 = 7$ points.”

True
False

Answers:
[If False] No, the statement is true. The number of points you earn is function of the distance between the position of the party and your position. If your position is 13 and the winning party is D (position 15), you earn $9 - 2 = 7$ points.
[If True] Yes, the statement is true. The number of points you earn is function of the distance between the position of the party and your position. If your position is 13 and the winning party is D (position 15), you earn $9 - 2 = 7$ points.
A3. Screenshot: Voting screen (plurality)
A4: Screenshot: Result screen

Participant 1 received 1 vote(s).
Participant 2 received 6 votes.
Participant 3 received 7 votes.
Participant 4 received 4 votes.
Participant 5 received 2 votes.

Participant 0 was the dictator.

<table>
<thead>
<tr>
<th>Participant position</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
<th>20</th>
</tr>
</thead>
<tbody>
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<td>3</td>
<td>4</td>
<td>5</td>
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<td>19</td>
</tr>
<tr>
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<td>7</td>
<td>8</td>
<td>9</td>
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<td>18</td>
</tr>
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<td>17</td>
</tr>
<tr>
<td>Participant 5</td>
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<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
</tr>
</tbody>
</table>

You are located in the position 19.
You gain 0 points.
A5. Screenshot: Choosing electoral rule screen
## A6. Conditional logit regressions

<table>
<thead>
<tr>
<th></th>
<th>(Plurality)</th>
<th>(Approval Voting)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance to candidate</td>
<td>-0.003***</td>
<td>-0.005***</td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td>(0.001)</td>
</tr>
<tr>
<td><strong>Candidate (C as reference)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Candidate A</td>
<td>-0.027***</td>
<td>-0.004**</td>
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<tr>
<td></td>
<td>(0.004)</td>
<td>(0.002)</td>
</tr>
<tr>
<td>Candidate B</td>
<td>-0.019***</td>
<td>-0.002</td>
</tr>
<tr>
<td></td>
<td>(0.002)</td>
<td>(0.001)</td>
</tr>
<tr>
<td>Candidate D</td>
<td>-0.013***</td>
<td>-0.001</td>
</tr>
<tr>
<td></td>
<td>(0.002)</td>
<td>(0.002)</td>
</tr>
<tr>
<td>Candidate E</td>
<td>-0.027***</td>
<td>-0.005***</td>
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<tr>
<td></td>
<td>(0.004)</td>
<td>(0.001)</td>
</tr>
<tr>
<td>Observations</td>
<td>5,040</td>
<td>4,920</td>
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</table>

Note: Entries are marginal effects estimated from conditional logit regressions predicting the probability to vote for/approve a candidate. Standard errors clustered by subjects are in parentheses. *** p<0.01, ** p<0.05, * p<0.01 (two-tailed). The N is smaller under approval voting because observations for which a subject approves all five candidates cannot be included (no variation on the dependent variable). This happens in 24 out of 1,008 votes under approval voting.
### A7. Regressions with control variables

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<tr>
<th></th>
<th>(Pooled)</th>
<th>(No Veil)</th>
<th>(Veil)</th>
<th>(Interactions)</th>
</tr>
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<tbody>
<tr>
<td>Rational Benefit</td>
<td>0.014**</td>
<td>0.020*</td>
<td>0.010</td>
<td>0.019</td>
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<tr>
<td></td>
<td>(0.007)</td>
<td>(0.011)</td>
<td>(0.011)</td>
<td>(0.012)</td>
</tr>
<tr>
<td>Egalitarianism</td>
<td>0.016</td>
<td>0.010</td>
<td>0.024*</td>
<td>0.008</td>
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<tr>
<td></td>
<td>(0.011)</td>
<td>(0.013)</td>
<td>(0.013)</td>
<td>(0.013)</td>
</tr>
<tr>
<td>Psychological Benefit</td>
<td>0.007***</td>
<td>0.008***</td>
<td>0.006***</td>
<td>0.007***</td>
</tr>
<tr>
<td></td>
<td>(0.002)</td>
<td>(0.002)</td>
<td>(0.002)</td>
<td>(0.002)</td>
</tr>
<tr>
<td>Veil</td>
<td>0.019</td>
<td>-0.123</td>
<td>0.114*</td>
<td>0.008</td>
</tr>
<tr>
<td></td>
<td>(0.034)</td>
<td>(0.117)</td>
<td>(0.053)</td>
<td>(0.053)</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0.009</td>
<td>-0.097</td>
<td>0.114*</td>
<td>0.008</td>
</tr>
<tr>
<td></td>
<td>(0.053)</td>
<td>(0.066)</td>
<td>(0.066)</td>
<td>(0.053)</td>
</tr>
<tr>
<td>Rational Benefit x Veil</td>
<td>-0.011</td>
<td></td>
<td></td>
<td>(0.018)</td>
</tr>
<tr>
<td>Egalitarianism x Veil</td>
<td>0.017</td>
<td></td>
<td></td>
<td>(0.013)</td>
</tr>
<tr>
<td>Age</td>
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<td>-0.000</td>
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<td>0.002</td>
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<tr>
<td></td>
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<td>(0.003)</td>
<td>(0.003)</td>
<td>(0.003)</td>
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<tr>
<td>Gender (Male=1)</td>
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<td>-0.097</td>
<td>-0.016</td>
<td>-0.058</td>
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<tr>
<td></td>
<td>(0.057)</td>
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<tr>
<td>Education (in years)</td>
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<td>0.018**</td>
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<td>(0.009)</td>
<td>(0.008)</td>
<td>(0.007)</td>
</tr>
<tr>
<td>Political Interest (0-10)</td>
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<td>-0.010</td>
<td>0.003</td>
<td>-0.003</td>
</tr>
<tr>
<td></td>
<td>(0.010)</td>
<td>(0.013)</td>
<td>(0.014)</td>
<td>(0.010)</td>
</tr>
<tr>
<td>N</td>
<td>504</td>
<td>252</td>
<td>252</td>
<td>504</td>
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</tbody>
</table>

Note: Entries are marginal effects estimated from logit regressions predicting the probability of choosing approval voting over plurality. Standard errors, clustered by subject for the first and last columns, are in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$ (two-tailed).
### A8. Full regression results for analysis aiming at probing the mechanism

<table>
<thead>
<tr>
<th></th>
<th>(No veil)</th>
<th>(Veil)</th>
<th>(No veil)</th>
<th>(Veil)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rational Benefit</td>
<td>0.020*</td>
<td>0.005</td>
<td>0.020*</td>
<td>0.005</td>
</tr>
<tr>
<td></td>
<td>(0.011)</td>
<td>(0.011)</td>
<td>(0.011)</td>
<td>(0.011)</td>
</tr>
<tr>
<td>Egalitarianism</td>
<td>0.008</td>
<td>-0.018</td>
<td>0.006</td>
<td>-0.015</td>
</tr>
<tr>
<td></td>
<td>(0.024)</td>
<td>(0.024)</td>
<td>(0.017)</td>
<td>(0.017)</td>
</tr>
<tr>
<td>Psychological Benefit</td>
<td>0.008***</td>
<td>0.006***</td>
<td>0.008***</td>
<td>0.006***</td>
</tr>
<tr>
<td></td>
<td>(0.002)</td>
<td>(0.002)</td>
<td>(0.002)</td>
<td>(0.002)</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>-0.096</td>
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<td>-0.092</td>
<td>0.045</td>
</tr>
<tr>
<td></td>
<td>(0.064)</td>
<td>(0.064)</td>
<td>(0.068)</td>
<td>(0.067)</td>
</tr>
<tr>
<td>Difference in Payoffs Equality 1</td>
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<td>0.244**</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>(0.113)</td>
<td>(0.118)</td>
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</tr>
<tr>
<td>Difference in Payoffs Equality 2</td>
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<td>-0.283***</td>
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<tr>
<td></td>
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<td></td>
<td>(0.088)</td>
<td></td>
</tr>
<tr>
<td>Egalitarianism x Diff. in Payoffs Equality 1</td>
<td>-0.003</td>
<td>-0.027**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.013)</td>
<td>(0.014)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Egalitarianism x Diff. in Payoffs Equality 2</td>
<td>0.005</td>
<td>0.035***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.009)</td>
<td>(0.010)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**N**: 252 252 252 252

Note: Entries are marginal effects estimated from logit regressions predicting the probability of choosing approval voting over plurality. Standard errors are in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$ (two-tailed). Difference in Payoffs Equality 1 is ‘Std. Dev. Approval – Std. Dev. Plurality’, Difference in Payoffs Equality 2 is ‘Subj. with Points Approval – Subj. with Points Plurality’.