In June 2016, a slight majority of British voters voted to leave the EU. Economists widely believed—and still believe—this will harm the very citizens who voted to leave. Should they have gotten their way?

Maybe not. The polling form Ipsos Mori discovered that the British public was systematically misinformed about the basic facts relevant to the decision. Leave voters believed that EU immigrants constituted 20% of the UK’s population; Remain voters estimated 10%. The correct figure is about 5%. On average, both Leave and Remain voters overestimated by a factor of 40–100 what the UK pays in Child Benefits to members of other EU countries. Both vastly underestimated the amount of foreign investment from the EU and vastly overestimated the amount from China.¹ Both Leave and Remain voters got the basic facts wrong, but the more wrong a person was, the more likely they were to vote Leave. It is plausible that if the populace were better informed, Remain would have won.

In general, in most democratic elections and referenda, citizens are ignorant and misinformed about the basic facts. Their mistakes are systematic and their worldviews unsophisticated. They process information in deeply irrational ways. Only a minority have stable political beliefs or opinions. We ask them to choose leaders and, in some cases, choose laws, but they rarely have any clue what they are doing.

Democracies generally outperform other forms of government we have tried. Just why that is so is disputed (Acemoglu and Robinson 2013; Jones 2020). However, most other historical forms of government—from monarchies to oligarchies to one-party states—primarily existed to enable government elites to exploit the masses. In the same way, a bungling, inept mother who means well is better than an abusive mother. The bar is low.

This chapter outlines an alternative political system called *epistocracy*. Epistocracies retain most of the features of modern social democracies, including liberal constitutions limiting government power, the separation and devolution of powers, frequent contested elections, contestatory forums, and the like. But epistocracies apportion political power on the basis of knowledge and political competence, in order to reduce the harm caused by the ignorant, misinformed, and irrational electorate.
Voter behavior 101

In primary school, many of us learn a particular theory of how democracy functions. Let’s call it the “popular sovereignty model.” The theory goes as follows: first, it posits that citizens have various concerns and goals, some selfish, and some not. Second, they learn how the world, politics, and economy work. They form political beliefs and begin to advocate various political policies, because they believe those policies will realize their goals. Third, they examine the candidates and parties on offer, and tend vote for the best match with a real chance of winning. Fourth, since everybody does that, the winning candidates or parties will tend to match what the majority wants. Thus, the policies and laws that are implemented after the election tend to reflect the ideological preferences of the winning coalition of voters. Finally, and fifth, if leaders do a bad job, voters punish them by voting them out in the next election.

Unfortunately, the popular sovereignty model is wrong. Or, more precisely, it describes a tiny minority of citizens, perhaps as few as 1 in 10 (Achen and Bartels 2016; Kinder and Kalmoe 2017). Political scientists, psychologists, and economists have studied voter behavior for over 60 years. They’ve conducted thousands of studies and amassed a huge amount of data. Their findings are largely uniform and depressing. In general, voters are ignorant, misinformed, and biased. However, there is tremendous variance. Some people know a lot, most people know nothing, and many people know less than nothing, because they are systematically mistaken (Campbell et al. 1960; Converse 1964; Delli-Carpini and Keeter 1996; Friedman 2006; Caplan 2007; Somin 2013).

For instance, during election years, most citizens cannot identify any congressional candidates in their district (Hardin 2009, 60). Citizens generally don’t know which party controls Congress (Somin 2013, 17–21). During the 2000 US Presidential Election, while slightly more than half of all Americans knew Gore was more liberal than Bush, significantly less than half knew that Gore was more supportive of abortion rights, more supportive of welfare-state programs, favored a higher degree of aid to blacks, or was more supportive of environmental regulation (Somin 2013, 31). They do understand what political labels such as “liberal” or “conservative” signify (Kinder and Kalmoe 2017).

Voters are not merely ignorant, but many are misinformed. They make systematic mistakes about basic economic theory (Caplan 2007) and about how political power functions (Caplan et al. 2013). The American National Election Studies, conducted every other year, often test basic political knowledge. The bottom 25% of voters often perform worse than chance (Althaus 2003).

Citizens are also epistemically irrational. They suffer from cognitive biases which prevent them from processing information in a reasonable or truth-tracking way. Strong emotions cause them to reason poorly. They tend to look for and accept evidence that confirms their pre-existing beliefs, but dismiss or ignore evidence which contradicts what they believe. They quickly rationalize and dismiss bad behavior on their side but interpret even good behavior from the other side in a negative way. They tend to assume those they disagree with are stupid and evil. They try to twist evidence to claim it supports whatever they want it to (Tversky and Kahneman 1973; Tajfel and Turner 1979; Tajfel 1981; Tajfel 1982; Kahneman et al. 1982; Rasinski 1989; Bartels 2003; Arceneaux and Stein 2006; Taber and Lodge 2006; Westen et al. 2006; Westen, 2008; Haidt 2012; Kelly 2012; Chong 2013; Lodge and Taber 2013; Taber and Young 2013; Erison et al. 2014).
Information matters. The policies people prefer depends in part on how informed they are. When controlling for the influence of sex, race, and income, highly informed citizens have systematically different policy preferences from ignorant or misinformed voters (Althaus 2003).

However, most citizens lack stable political beliefs or ideologies. While many citizens label themselves conservative or liberal, or attach themselves to political parties, only a small minority, fewer than 1 in 5, have stable beliefs over time, or have real political opinions. A large segment of the population is politically agnostic (Converse 1964; Barnes 1971; Inglehart and Klingemann 1976; Arian and Shamir 1983; Converse and Pierce 1986; Zaller 1992; McCann 1997; Goren 2005; Zachmeister 2006; Lewis-Beck et al. 2008; Achen and Bartels 2016; Kinder and Kalmoe 2017; Mason 2018).

Political affiliation is largely not about belief or policy. As Anthony Appiah (2018) says, “People don’t vote for what they want. They vote for who they are.” Citizens vote largely on the basis of partisan loyalties grounded in their identities, which do not track ideology, sincere policy preferences, or their interests. Rather, partisan attachments usually result from accidental, historical connections between certain identity groups and certain political movements and parties. In the same way that people from Boston root for the Patriots to demonstrate their fidelity to their group, Boston Irish people vote Democrat, Southern Evangelicals vote Republican, and so on. Citizens often change their expressed “beliefs” to fit their party; they rarely choose a party on the basis of shared beliefs (Cohen 2003; Mutz 2006; Iyengar et al. 2012; Kahan et al. 2013; Somin 2013; Iyengar and Westwood 2015; Achen and Bartels 2016).

Citizens are bad at retrospective voting (Healy and Malholtra 2010). Retrospective voting demands a great deal of voters. They must know who was in power, what they did, what they could have done, how to evaluate what they did versus what they could have done, and finally whether the challengers are likely to be any better. In fact, it appears that voters at best tend to punish or reward incumbents for the last sixth months or so of economic performance. However, as Achen and Bartels say, if the incumbents were not responsible for those outcomes, this is little better than kicking the dog because one had a bad day at work (Achen and Bartels 2016).

In political science and economics, the dominant explanation for why citizens behave so poorly is that democracy incentivizes them to do so. Because individual votes count for so little, citizens generally have no incentive to be informed, no incentive to correct their errors, and every incentive to indulge their worst biases. They are ignorant, misinformed, and biased because the expected costs of acquiring information and overcoming their biases exceed the expected benefits. They are rationally ignorant and rationally irrational.

**We don’t make it up in bulk**

Most voters are ignorant, misinformed, irrational, tribalistic followers. Still, in some cases, large groups of people can be wise as a collective even though the individuals within those crowds are not wise. For instance, when we ask people to guess the number of jellybeans in a jar, most individual’s answers are mistaken. But their mean guess is quite accurate. Indeed, the more people we add, the more accurate the mean becomes.

Perhaps democratic voting has the same features, in which the group is wise even though the individuals within the group are not. Three popular mathematical models are often invoked to defend democracy in just this way:
In defense of epistocracy

1. The Miracle of Aggregation: Ignorant voters will vote randomly. Accordingly, they will cancel each other out, leaving the well-informed minority to decide the election. A large electorate composed mostly of ignorant voters performs like an informed electorate.

2. Condorcet’s Jury Theorem: If the average reliability of individuals in a collective decision is greater than 0.5, then as the number of individuals gets higher, the probability that the group will select the right answer approaches 1. (However, if their mean reliability is <0.5, then the probability the group will select the wrong answer approaches 1.)

3. Hong-Page Theorem: Under certain conditions, when groups are making a collective decision, increasing the cognitive diversity of members of the group better enhances the reliability of the group as a whole than increasing the reliability of individual members of that group.

Each of these theorems relies upon a mathematical model. The important question is whether the models correspond to what happens in real-life democratic decision-making.

It’s worth noting that while the mathematics of the third theorem is highly controversial. Mathematician Abigail Thompson claims that the proof of the Hong-Page Theorem rests on several identifiable mathematical errors. She further claims that the mathematical stand in for “diversity” in the theorem does not correspond to anything that we might call “cognitive diversity” in the real world. She also argues the proof is not generalizable (Thompson 2014). Similarly, Paul Quirk, among others, claims that the “proof” depends upon a series of computer experiments “strongly biased toward that result [that diversity trumps ability] and argues that it tells us nothing about decision-making in real-world political settings” (Quirk 2014). Further, as many have noted, one reason why “diversity trumps ability” in the Hong-Page Theorem, as groups become larger, is that the theorem in effect models large groups as including the most elite performers and deferring to them when they are right. Philosopher David Wallace notes that theorem simply assumes that whenever smart agents get stuck, there is always another person who can and will improve the group’s decision. The theorem is supposed to prove this, he says, but in fact Hong and Page bake these assumptions in as premises. Thus, their result is trivial. 2

Let’s put these worries aside. Instead, consider what Hélène Landemore (2012, 195) says:

The main problem with the optimistic conclusions about group intelligence…is that in some way or another they rely on the assumption that there is a symmetrical distribution (random or otherwise) of errors around the right answer (Miracle of Aggregation) or that errors are negatively correlated (Hong and Page).

If citizens’ errors are not randomly or symmetrically distributed, or if citizens tend to make systematic mistakes, tend to follow one another’s opinions, or tend to be systematically misinformed and unreliable, then these mathematical theorems cannot be used in support of democracy. (Landemore herself nevertheless supports highly optimistic conclusions about how well democracy performs.)

As discussed in previous section, the empirical literature supports the following claims:

1. Citizens do not form their ideas or decide how to vote independently and separately. They follow one another, and in particular, tend to parrot whatever their party happens to say.

2. Citizens vote for largely non-cognitive and non-ideological problems. They are cheering for their team, not trying to discover the right answer.
Most citizens have very unsophisticated mental models of politics and very low levels of information.

Citizens make systematic errors and are systematically mistaken about a wide range of basic political facts and more advanced social scientific knowledge.

These points are fatal to “wisdom of the crowd” defenses of democracy. Voters’ errors compound rather than cancel. They lack the kind of cognitive diversity and basic sophistication the Hong-Page Theorem. Condorcet’s Jury Theorem, rather than being used to defend democracy, might be used to critique it.

Incompetent rule is unjust

Imagine a capital murder case. Suppose that the trial proceeds as normal, with both the prosecution and defense presenting their arguments, evidence, and so on. However, suppose the jury has any or all of the following features:

1. They are ignorant. They pay no attention to the facts of the case. They refuse to read the transcript. They flip a coin and find the defendant guilty.
2. They are misinformed. The jury deeply misunderstands the facts of the case. For instance, they have clearly false beliefs about where the defendant was during the murder, what the defendant’s relationship to the victim was, and so on. Their false beliefs explain why they found him guilty.
3. They are irrational. They pay attention to the facts of the case, which indicate rather clearly that the defendant is innocent. However, the jurors process information in deeply irrational way, and so conclude he is guilty.
4. They are malicious, selfish, or acting in bad faith. They find the defendant guilty because he is a member of disliked religious group, or because he owns a rival restaurant, or because they took a bribe.
5. They are tribalistic. They find the defendant guilty because they are just the kind of people who vote guilty every time, regardless of the facts.

In these cases, if we knew the jury decided in any of these ways, it would be wrong and unjust to enforce their decision. Their decision would lack authority. Indeed, in some US states, if a defendant who demonstrated the jury made a decision on any such grounds would be entitled to a retrial.

What seems to explain these intuitions are the following: the jury is charged with administering justice. They act as representatives of society as a whole. They will impose their will upon a possibly innocent person. Their decision is high stakes, and can deprive a person of property, freedom, and even life. In situations like this, a minimal condition for the decision to be legitimate and authoritative is that they decide competently and in good faith. If they are incompetent as a body in general, or if they make this particular decision incompetently and in bad faith, then it would be wrong to enforce their decision.

This point generalizes to other political decision. Many political decisions are high stakes, can greatly affect other people’s welfare, alter their life prospects, and deprive them of life, liberty, property, and happiness. The people making these decisions are usually charged with acting on behalf of the common good and are supposed to aim for just outcomes. Thus, I think juries, judges, police officers, presidents, legislators, bureaucrats, governors, and even the voting public is constrained by what I call the Competence Principle:
The competence principle

It is presumed to be unjust and to violate a citizen’s rights to forcibly deprive them of life, liberty, or property, or significantly harm their life prospects, as a result of decisions made by an incompetent deliberative body, or as a result of decisions made in an incompetent way or in bad faith. Political decisions are presumed legitimate and authoritative only when produced by competent political bodies in a competent way and in good faith.

In short, the idea is that a minimal condition of a political decision being authoritative and legitimate is that it must be made by a reliable/competent body or decision-making process, in a competent way, and in good faith.

To make my argument work, I do not need to defend some precise theory of political competence. Any plausible theory of competence and good faith would agree that the jurors are incompetent or acting in bad faith in 1–5 above. If one is ignorant or misinformed despite salient information being available, if one sticks to the same beliefs come what may, or if one forms beliefs almost entirely on the basis of non-evidentiary factors, then one acts incompetently.

Notice that the electorate’s decisions have the same morally salient features as the jury decisions:

1. Electorates are charged with making morally momentous decisions, as they must decide how to apply principles of justice, and how to shape many of the basic institutions of society. They are one of the main vehicles through which justice is to be established.
2. Electoral decisions tend to be of major significance. They can significantly alter the life prospects of citizens, and deprive them of life, liberty, and property.
3. The electorate claims sole jurisdiction for making certain kinds of decisions over certain people within a geographic area. The electorate expects people to accept and abide by their decisions.
4. The outcomes of decisions are imposed involuntarily through violence and threats of violence.

This is strong presumptive reason to hold that the Competence Principle applies not merely to juries, judges, presidents, and the like, but even to the voting electorate as a whole.

How the group votes matters. Voters sometimes directly choose policy. Other times, they choose representatives who, in turn, create policy. If voters choose badly, they can cause serious injustices. They can choose leaders who will implement destructive tariffs, run up the debt, leave the poor behind, start unnecessary and unjust wars, ignore or exacerbate existential threats, or mismanage criminal justice, among other things.

When democracies make bad choices, this is not the moral equivalent of a single person making poor choices for herself. When the democratic majority or winning plurality makes bad choices, they impose their will upon the losing minorities, residents unable to vote, future generations, and foreigners who must live with the consequences.

Enlightened preference voting

There are many possible ways to mitigate the harmfulness of bad voting. Here, I’ll discuss one possibility.
Ample work in political science and economics shows that low-information and high-information voters have different policy preferences. Martin Gilens notes that even within a single party, the high-information and low-information members disagree. For instance, high-information Democrats are more pro-free-trade and less militaristic than low-information Democrats (Gilens 2012, 106–11).

However, we also know that information is correlated with various demographic factors. A persistent finding over the past 60 years in the US is that, when it comes to basic political knowledge, the rich know more than the poor, men know more than women, whites know more than blacks, and so on. In short, the more privileged tend also to be better informed (Delli-Carpini and Keeter 1996, 135–77). Thus, one might worry that if informed people disagree with the uninformed, these demographic factors rather than information might confound or even drive the results. Since high-information voters also tend to be rich, perhaps it’s their income rather than the information that makes them pro-free-trade.

Fortunately, researchers are already aware of this and have developed research methods which allow us to test the effect of information, while controlling for demographics, and vice versa. The basic method goes as follows:

1. Give everyone a test of some aspect of political knowledge. Find out what they know.
2. Collect information about their demographics. Find out who they are.
3. Survey them on their opinions, beliefs, etc. Find out what they want.

Once we have all three sets of data, we can assess the independent effect of knowledge or the independent effect of demographics, all while controlling for confounds. Further, we can statistically estimate what the public would have wanted if things changed. This method allows to estimate, for instance, what an otherwise identical but all-female or all-male public would want. Most importantly for our purposes here, it allows us to estimate what a demographically identical public would want if it had gotten a perfect score on the knowledge test. Call this the publics’ enlightened preferences (Althaus 2003; Caplan 2007).

I suggest we use this method to produce better political outcomes. The procedure goes as follows. On election day, everyone is allowed to vote, including children. When they vote, though, they must do three things:

1. Take a 40-question, closed-book quiz on basic political knowledge.
2. Tell us their demographic factors. (Perhaps this can be set ahead of time on a voter ID card.)
3. Tell us their opinion on whatever the election is about, for instance, which candidate or party they support, or which position they take on a referendum.

Afterward, all the voting data is anonymized and made public. The government then calculates—using methods that can be checked by any major newspaper and many statistically savvy researchers—what a demographically identical public would have wanted if it had gotten a perfect score on the quiz. In short, we calculate the electorates’ enlightened preferences and implement those instead of their actual, unenlightened preferences. Call this enlightened preference voting.

Keep in mind that the quality of the candidates on the ballot, the quality of the policies they espouse, and the ways parties are organized are not exogenous factors. They depend significantly on the kind of voting system used and on the quality of the voters themselves.
Parties want to win, and so the positions they push and candidates they forward depend on what they believe will help them win. Enlightened preference voting will not merely tend to ensure we select the better choices on the ballot; it will tend to ensure that all the choices that make it on the ballot are already better.

Now, one might argue this counts as a form of democracy rather than epistocracy. After all, no one is excluded. Citizens are not required to pass the quiz to earn the right to vote. It’s not exactly true that the more knowledgeable receive more votes than the less knowledgeable. Rather, everyone has equal input, and we use these inputs to estimate what an informed but otherwise identical public would have wanted. We can mathematically estimate afterwards that different citizens had different average or marginal effects, but even this is somewhat artificial. For this reason, a committed democrat who likes this idea might insist that enlightened preference voting is a form of democracy. Rather than excluding some people or elevating some above others, it is simply a better method for extracting the hidden wisdom of the crowd. On the other hand, in enlightened preference voting, the “people” do not get their way; rather, the ruling group is a hypothetical electorate statistically derived from the actual electorate. This counts against calling the system democracy. Still, rather than resolve this definitional debate here, I will simply note the issue.

One virtue of this system is that it allows us to test to what degree various political outcomes results from demographic bias. We can simulate whether, for instance, an all-black or all-female polity would have chosen differently. With such information, we could in principle correct for problems which arise when small minorities have their (enlightened) preferences thwarted time and time again.

There are good questions about how to design this system. Who decides which questions go on the quiz? Who decides what the demographic categories will be?

This might matter less than one would suspect. After all, as of now, various political scientists and economists have employed the enlightened preference on different data sets, using different groups of people, different demographic categories, and different tests of competence and knowledge. So far, they tend to generate similar results despite that: the enlightened public is more free trade, more in favor of interactions with foreigners, more civil libertarian, and more in favor of tax increases to offset the deficit (Althaus 2003; Caplan 2007; Gilens 2012).

Regardless, I recommend that in order to reduce the amount of political gaming and rent seeking that might corrupt the system, we let the people design it. Allow elections to proceed as normal. However, three weeks or so before the election, we randomly select 500 citizens. They are paid to spend a weekend together deliberating to choose the questions which go on the test. They also can revise the demographic indicators.

This may seem paradoxical. I have argued citizens are largely incompetent to choose policy or leaders. They lack basic political information. Why then would they be competent to design the quiz? They know an informed citizen needs to know who is in power, what they did, how to assess what they did, whether people are getting richer or poorer, healthier or less healthy, or whether crime is up or down. Here, the problem is not that citizens lack a good grasp of what the right questions are. Rather, the problem is that they lack the answers. The question “what counts as an informed citizen” is an easy one where the crowd can produce a good answer, even if though most in the crowd are not informed. Further, the citizens who design the poll can piggy-back off of things like the American National Election Studies or the US citizenship exam. Further, one advantage of this system is that, with only 500 citizens choosing what appears on the test, they will have stronger incentives to do their jobs well.
In the real world, I expect this system to be flawed, just as in the real world, any democratic voting system is flawed. The question is not whether it will be perfect. The question is whether it will be *better*. Democracy has many virtues compared to the systems we have tried. It also has a systematic flaw: it spreads power out widely, and in virtue of doing so, incentivizes those who hold that power to use it unwisely. We have a moral obligation to fix this problem as best we can.

**Notes**


**Works cited**


In defense of epistocracy


