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BOOK REVIEW

An Epistemic Theory of Democracy, Robert E. Goodin and Kai Spiekermann, Oxford University Press, 2018, xvi + 456 pages. doi:10.1017/S0266267119000142

Two heads are better than one, three heads are even better than two – and so on and so on; hence we should have a democracy. This is the broad idea behind epistemic democracy – the idea that democracy is the best system of social organization, or at least the system we ought to adopt, because it enables us to make the wisest decisions. Some such thought has been a recurring theme in philosophic defences of democracy throughout the years (see the historical sketch that opens Du Bois 1920) and apparently receives powerful mathematical backing in the famous Condorcet Jury Theorem (CJT). Of course, philosophy being as it is, both the premise(s) and the logic of this argument have been challenged. Goodin and Spiekermann set out to address these challenges, and in particular show that a proper appreciation of a group of theorems around the CJT does indeed tend to support epistemic democracy as a mode of social organization.

For those who want the summary statement first – let me just say this is an excellent, comprehensive study, systematically arranged by theme, of results that pertain to the CJT. As well as bringing together old results and presenting some novel ones, the authors also deploy a mixed method approach that combines analytical proofs and simulation analyses to shed light on their subject matter. While the authors' focus is on the defence of epistemic democracy, the CJT has found application in plenty of other areas. Even just in recent philosophy, philosophers of law (Edelman 2002), philosophers of science (Heesen *et al.* 2016) and philosophers of blogging (Munger 2008), have all found cause to draw upon the CJT. As such, I expect the appeal of this book to be broader than just those philosophers and social scientists interested in democratic theory. I recommend reading this book. High level evaluation out of the way, let's get down to details!

A brief recap of the simplest form of the CJT will be useful for this review. Let us suppose a group of voters are deciding on a yes/no question – for instance, is the defendant guilty beyond all reasonable doubt? We assume there is a correct answer, in our example that some pertinent standard of evidence and the state of the world together settle whether or not the defendant really is guilty beyond all reasonable doubt. Further, assume that all the voters have the same independent probability of getting the right answer, this probability is above 1/2, and voters will select what they think is correct. Finally, let us assume that there are always odd numbers of voters, so no worries about tie breaking arise. Then the more voters there are the more likely it is a simple majority vote will get the right answer, and in the limit the probability of a correct majoritarian vote goes to 1.

Ever since this theorem was brought to the attention of modern theorists many have seen in it the basis for some defence of democracy (Landemore 2012*a*: 1).

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Indeed, Condorcet himself saw things this way (Urken 1991: 214). However, stated in its simplest form it faces some rather obvious problems if it is to be applied to real democratic polities. Voters are not independent of one another, they are rarely faced with straightforward yes or no questions, they are not equally likely to be correct, it is not clear that democratic decisions always have a correct answer they ought settle upon, and for all that has just been said it is still possible that if one could restrict the votes to an epistemically elite class of experts one could do better at whatever it is one wants done. And, if we are really getting down to brass tacks, sometimes there are even numbers of voters!

From such worries, theorists who are sceptical of democracy's epistemic potential – most conspicuously in recent times Jason Brennan (2017) – conclude that the CJT is no sound basis for a defence of democracy. Given the strong assumptions nothing like an actual polity could be made to resemble its conditions. The role of the independence assumption in the CJT worries even friends of democracy, and discourages defences of democracy based on the CJT (e.g. Rawls 1971: 538). More generally, many worry about how idealized theories of democracy can meet the demands of the real world (see e.g. Wenner 2017). Idealized as they are, CJT based theories of epistemic democracy are prime targets for such critique. Goodin and Spiekermann's book is a nice rejoinder on behalf of the formally minded democratic theorists who have spent recent years collectively rescuing the CJT from this low repute. Properly understood and suitably generalized, the CJT does in fact form a suitable basis for defending epistemic democracy, and this book is largely dedicated to explaining how this can be done.

Despite apparently jumping around topics, the book can be read as one continuous argument. They begin by showing that some elements of the simplest form of the CJT can fairly easily be generalized away. So, for instance, in an early chapter (Ch. 3) they show that it is possible to relax the assumption that all voters have identical competence, that one need not assume the group aggregates via a majority vote, and that a CJT-esque result may be proven even where there are more than two options available to the voter. With such comparatively simple matters set aside, they focus their discussion on what they identify (in §2.2) as the substantive core assumptions that are apparently necessary for a CJT based defence of epistemic democracy:

Competence: each voter's belief about the correct alternative is true with probability greater than 0.5.

Independence: the beliefs of all voters are statistically independent, given the true state of the world regarding the correct alternative.

Sincerity: all voters vote for the alternative they believe to be the correct alternative.

All the later discussions are framed either around theoretical relaxations of these that still permit results friendly to the epistemic democrat, or policies and reforms that may help us better approximate to satisfying one of them. They conclude that while these assumptions do not always hold, they either hold in enough cases, or reasonable relaxations of them hold such that CJT-esque results can still be proven, or there is a clear enough path of reform that would allow us to approximate them. They can thus summarize their central claim as "no other form of government has as much *epistemic potential* as democracies do" (§20.3). Which is to say that since the CJT lays out conditions that we may reasonably hope can be met in a plausibly achieved democracy, we ought to prefer democracy as the system we are most able to ensure will be most epistemically competent. That is, democracies are most able to ensure they track the truths they need to track in order to reliably achieve their ends.

To give an illustration of how they discuss their core assumptions throughout the book, take the independence assumption. This has traditionally been one of the biggest stumbling blocks for the CJT's application to real world politics, and as such is a matter they return to throughout. They begin by devoting a whole chapter (Ch. 5) to discussing exactly what is required of the independence assumption in order for the CJT to be useful for an epistemic democrat. From this discussion, and acknowledging a debt to Dietrich and List (2004), the authors introduce the idea of a best responder. Take the epistemic situation to encompass: the actual state of the world, the evidence available, the influential thought leaders in the community, and the shared biases and cognitive limitations that cannot be avoided by any person, and so on. That is to say, the epistemic situation encompasses all the common causes of voters' beliefs. This situation is either truth-conducive or not with a certain probability. If it is, a 'best responder', an agent who interprets the given evidence in the best possible way, will find the right answer, otherwise they will fail to do so. The reliability of the best responder is the probability of facing a truth-conducive situation. The best responder corollary then says that if votes are independent conditional on the epistemic situation, and voters are better than chance at responding as the best responder would, then as the number of voters increases the probability that the group is correct converges on the reliability of the best responder. Hence if one is in a situation where the evidential situation allows for optimism about the competence of a best responder, even things that break independence do not blunt the force of a CJT-esque defence of epistemic democracy. And if one is not in such a situation, then of course by construction of the scenario there is little reason to be optimistic about the epistemic potential of any political system, democracy or not. Hence, the best responder corollary tells us that where it is possible to have hope for the epistemic potential of a political system, democracies still do well, even accounting for failures of the independence assumption.

With their more refined view of what is needed from the independence assumption in hand, Goodin and Spiekermann are able to make insightful remarks on a number of topics. They discuss underappreciated difficulties for defenders of epistemocracy, or rule by small groups of experts (§15.5.2). They discuss the role that deliberation (§9.2.4) and leadership (Ch. 11) may fruitfully play in an epistemic democracy. This includes a discussion of how their pernicious effects may be mitigated (§18.2). There is a related discussion of how pluralism is not just a cultural but a fully epistemic good in a democracy (Ch. 7 and 13). In short, the authors take a classic problem in the literature around the CJT, that of the independence assumption's lack of realism. By some conceptual creativity and subtle formal analysis they are able to diffuse the problem. And then with the new understanding they shed light on a number of normative and theoretical issues in democratic theory. This is illustrative of both the general strategy of the book, and its breadth of scope. One cost of the wide scope is that each discussion is relatively brief, and more detail could no doubt be reasonably hoped for on all of the topics just named. However, the choice of breadth over depth seems reasonable, especially if one views this book as an invitation to future research for epistemic democrats.

A perhaps more serious issue with the book is the treatment of one of the core assumptions of epistemic democracy. The combined effect of the authors' various arguments is to render plausible the claim that where democracies are in the business of trying to get at a truth, the CJT provides a realistic model of how a democracy could do well at tracking that truth. However, very little is done to really defend the claim that democracies are all that often in the position of making choices wherein this sort of truth seeking model is an appropriate way of understanding the situation. In both the opening and closing chapters the authors acknowledge that in some cases democracies will not be faced with this sort of problem. But they argue that surely at least sometimes they are, and it is an important desideratum for a government that it be competent at tracking whatever truths are important for it to achieve its ends. This is too quick, as it is not easy to see how we might actually isolate the pertinent factual questions and ensure the wisdom of democracy is brought to bear on them. After all, even rather mundane questions of local government seem to deeply intertwine many seemingly different types of questions. To know how regularly the bins must be collected we must know a complex set of facts about opportunity costs and negotiate with interested parties as to how they will be traded off. We must know the public health effects of uncollected bins, and also have some aesthetic sensibility for what our neighbourhood shall be like under various policy regimes. We must consider how we value the effects of noise and vehicle pollution. Etc. Whether answering all these questions and weighing their respective importance is best modelled as tracking a truth or finding out an epistemically correct answer can be reasonably doubted. And that is just for the bins! Democracies are regularly faced with a messy admixture of factual, normative, aesthetic and political problems. It would be nice to have some model which made explicit how these sort of issues interrelate. With this in hand we could have informed discussion of how plausible it is that votes will be competently made and sincere in the requisite ways for a CJT-esque argument to be made here. A full defence of epistemic democracy awaits this last hurdle being overcome.

There is an old saying to the effect that the solution to the ills of democracy is always more democracy. This may or may not be true, but academics seem to be collectively behaving as such. For, now is an exciting time to be a democratic theorist. Along with the revival of CJT based defences of epistemic democracy, there is also renewed interest in the lottery based system of classical Athens (see James 1956), as has recently been defended by Guerrero (2014). This is along with important new work by historians (e.g. Cartledge 2016) and political scientists (e.g. Landemore 2012*b*) on democratic theory and practice. But, perhaps not coincidentally, all this is happening even as democracy seems perilously under threat in many places around the world. The authors themselves somewhat acknowledge this context by ending their book with a coda on the Brexit and Trump elections, both of which they take to be challenging for the epistemic democrat. However, this discussion did not quite hit the mark. Let us suppose the results of those votes were errors in the epistemic sense that democracy is meant to protect us from. The claim in this book was not, and surely could not plausibly be, that presently constituted democracies will not err. Two cherry picked bad results are neither here nor there for the epistemic democrat. However, despite the failings of their direct discussion of present challenges to democracy, Goodin and Spiekermann are right that there is some such issue to be addressed. For those of us in the academy who believe that 'the exclusion of democracy ... cuts off the living sources of all spiritual riches and progress' (Luxemburg 1918: Ch. 6), we can only hope that our efforts contribute to the general renewal and defence of this vital form of politics. Whether or not their book has such impact it surely deserves to. Goodin and Spiekermann's work will justly earn an important place in the library of people interested in the CJT, democratic theory, or the relationship between the two.

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