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# Epistemic Democracy and its Challenges

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## Abstract

Epistemic democracy defends the capacity of “the many” to make correct decisions and seeks to justify democracy by reference to this ability. Epistemic democrats marshal substantial evidence from the history of political thought and a set of models to support their claims. The essay assesses this evidence and argues in favor of more empirical testing. It also cautions against using the contextually limited evidence of wise decisions as a basis for justifying democratic decision making. Instead, the article sketches a “deflationary model” that relies on neither an independent standard of correctness nor the more ambitious assertions of the reliability of the mechanisms. That model, termed judgment democracy, retains epistemic democracy’s attractive respect for individual judgments and concern with institutional design, while eschewing its least plausible features.

## INTRODUCTION

Epistemic democracy develops a cluster of arguments in support of the wisdom of the many and argues that the tendency to make correct decisions provides an important defense of democracy. Further, many epistemic democrats argue that the justification for democracy derives from its reliability: Democratic decisions rightly oblige us because they are likely to be correct. Although these arguments and models offer strong if conditional support for the wisdom of crowds, epistemic democracy remains controversial. This is in large part because of suspicion about the use of independent standards of correctness or truth in the realm of democratic decision making: the risk of coercion, the appeal to comprehensive doctrines, or simply the truth-aptness of most questions confronting modern democracies. Critics of epistemic democracy span the universe of political theory, including Arendtians suspicious of the tyranny of truth (Arendt 1967), “epistemically abstinent” Rawlsians (Rawls 1985, 1993), agonists, social choice theorists, and egalitarian proceduralists.

Here I first reconstruct the modern intellectual history of epistemic democracy and then present the main historical arguments and models epistemic democrats rely on for the defense of the wisdom of the many. One important challenge to epistemic democrats is the conditional and provisional nature of many of these claims; I suggest that a crucial next step for epistemic democrats would be to subject these models to empirical testing.

I then turn to the justificatory logic of epistemic democracy. I examine the role of the putative truth-tracking capacity of democracy in generating legitimate decisions and contrast it to the primary alternatives to the epistemic justification, particularly proceduralism. Drawing on the work of Robert Dahl, Thomas Christiano, and Jeremy Waldron, among others, I sketch an alternative logic for epistemic democracy, here termed judgment democracy, which abandons the commitment to an independent standard of correct decisions while retaining a cognitive account of voting. Such an argument preserves the most attractive features of epistemic democracy—its respect for ordinary citizens’ judgments and its focus on institutional design—but eschews its least plausible dimensions.

## CONTEMPORARY ORIGINS OF EPISTEMIC DEMOCRACY

Epistemic democracy initially emerged in the early 1980s in response to the challenge of social choice theory. In 1985, the California Institute of Technology hosted a conference on “Explanation and Justification in Social Theory.” Riker’s (1982) *Liberalism Against Populism* had been published three years prior, and the conference was in part designed to celebrate Riker and his work (J. Ferejohn, private communication). The legal philosopher Jules Coleman presented a critical paper seeking to defend a version of populism against Riker’s argument that the findings of social choice theory meant that the notion of a popular will was incoherent. Riker held that the instability and ambiguity of vote outcomes demonstrated that the results of such procedures were meaningless or arbitrary, and populism was thus indefensible. Riker argued that the aim of elections, and of liberal democracy more generally, was to provide the possibility of removing officials from office, not to discern a popular will.

In the symposium *Ethics* published on the conference, Coleman & Ferejohn (1986) argued that the populist had several available responses to Riker. For one, even if a populist believed that there was indeed a popular will “out there” (which he did not need to believe was the case for all electoral matters), an epistemic populist could argue that the vote merely provided evidence for the content of this will. That is, the outcome of the vote did not itself constitute the general or popular will but only provided insight into its nature. Moreover, the vote itself did not convey



preferences but judgments as to the content of this will—at least, what ought to be done by the collective.

Joshua Cohen was the discussant for Coleman’s paper. Cohen had been working on Rousseau’s political thought for some time (J. Cohen, personal communication), and his “cognitive” version of the activity of voting upon the general will bore a strong resemblance to the epistemic-populist version sketched by Coleman & Ferejohn (1986). In his essay “An Epistemic Conception of Democracy,” Cohen suggested that Riker might be right that a “*purely procedural account of the general will*” (Cohen 1986, p. 28, italics in original) would fail, if a populist defined the general will strictly by reference to a majoritarian procedure that ostensibly generated consistent collective preference rankings from sets of individual preference rankings. But, as Cohen argued, virtually no populist held that view. More plausible, in Cohen’s account, was the Rousseauian version. In Cohen’s language, “reasonable populists” held that the judgments of majorities provided an “imperfect procedure” for identifying the general will. Cohen (1986, p. 34) wrote:

An epistemic interpretation of voting has three main elements: (1) an *independent standard* of correct decisions—that is, an account of justice or the common good that is *independent* of current consensus and the outcomes of votes; (2) a *cognitive* account of voting—that is, the view that voting expresses beliefs about what the correct policies are according to the independent standard, not personal preferences for policies; and (3) an account of *decision making* as a process of the adjustment of beliefs, adjustments that are undertaken in part in light of the evidence about the correct answer that is provided by the beliefs of others.

The epistemic populist, according to Cohen, took the general will to be the independent standard and thought that majority judgments could provide evidence of that will. Cohen’s own version of the content of the general will was Rawlsian in spirit: equal basic liberties, fair equality of opportunity, and the difference principle. When public deliberation is guided by these principles, the judgments of majorities provide good evidence of the general will.

Why would we have confidence in the competence of a majority to judge the content of the general will? The Condorcet Jury Theorem (CJT) provided one set of answers. The CJT is a model demonstrating that a group composed of individuals with a greater than 50% probability of reaching the right answer is highly likely to reach the right answer. Cohen suggested that the CJT is likely to operate if the following three conditions are in place: (a) a political system featuring institutions that are likely to promote public debate, political information, and political interest; (b) proper motivation among individual citizens to vote their judgment of the general will rather than their personal preferences; and (c) that these procedures derive legitimacy not merely from their reliability as such, but from their manifest, publicly recognized capacity to produce good outcomes. Yet even as Cohen wrote the essay he had become skeptical about the idea that democracy was fundamentally about aggregating opinions about the content of the “independent standard” (Cohen 2009, p. 7, and private communication). He had already begun to develop the conception of deliberative democracy, influenced by Jürgen Habermas.

Deliberative democracy, focusing on the importance of structured public discussion as a basis for legitimacy, predominated in democratic theory for at least two decades. Today, epistemic democracy does not position itself as an alternative to deliberative democracy but instead generally resituates deliberation as instrumental to the aim of good, or correct, decision making. As we shall see, the justificatory logic of epistemic democracy departs from deliberative legitimacy in several respects—particularly (at least in some deliberative theories) in its proceduralism.

Before we turn to epistemic justifications for democracy, let us first examine the primary pieces of evidence, historical and formal, adduced in favor of the wisdom of crowds and the possibility



of designing institutions that would help gather the dispersed knowledge of the citizens. As we engage in what epistemic democrat Hélène Landemore calls “selective genealogy” (Landemore 2013), it is important to bear in mind that there are virtually no unequivocal defenses of epistemic democracy in the history of political thought. Each text to which we might turn has a competing set of claims or reasonable interpretation mitigating the epistemic-democratic gloss. The main charge that might be leveled at epistemic democrats in this project is of cherry-picking—selectively identifying supportive passages in the context of works that are not unambiguously enthusiastic about democracy or popular wisdom. Fortunately, two safer routes for epistemic democrats exist. The first is to circumscribe and test the claims, emphasizing the specific institutional arrangements and contexts in which collective knowledge may be produced. The second is a deflationary strategy, recasting epistemic democracy to focus on institutions that might promote good judgments by citizens of their own interests as members of a wider community. My argument throughout this essay is that this latter strategy holds greater promise than the full-throated defense of an independent standard of good decisions or even the circumscribed, contextual defense.

## HISTORICAL EVIDENCE

Defenders of the epistemic approach to democracy typically turn to four historical moments and texts: (a) ancient Athens and Aristotle’s argument for the “doctrine of the wisdom of the multitude”; (b) Rousseau and his connection with Condorcet; (c) utilitarian thought, particularly Mill’s defense of the deliberative capacity of assemblies; and (d) classical pragmatism. This section briefly recapitulates the arguments in favor of epistemic democracy raised by each thinker or set of institutions and raises a few objections to each.

### Ancient Athens and Aristotle

The scholar Josiah Ober has almost singlehandedly revived the study of Athenian institutional design among political theorists, and in doing so he has provided epistemic democrats with a set of arrangements and arguments. The core argument of Ober’s brilliant recent work, *Democracy and Knowledge* (2008, p. 27) is that the success of Athens derived largely from its superior ability to organize the dispersed knowledge of its citizens. He argues that three “epistemic processes” involving innovation and learning were of primary importance: aggregation, or information gathering; alignment, “enabling people who prefer similar outcomes to coordinate their actions by reference to shared values and a shared body of common knowledge”; and codification, through which past decisions become “action-guiding rules” shaping future behavior. One important example in Ober’s account is the Council of 500, introduced by Cleisthenes in accordance with a new deme/tribe system that intermixed cognitively diverse peoples. The Council had agenda-setting powers for the Assembly, in addition to other responsibilities, and Cleisthenes arranged it so as to entail 50-man delegations from each of the 10 new tribes. The Council brought together for a year people with distinctive bodies of knowledge and experience, and once the year was complete, the members returned home with a new network and sources of information.

Important and persuasive as Ober’s epistemic explanations of Athenian performance have been, his account is of course not immune to the challenge that these institutions rested on the total exclusion of those deemed inferior in cognitive ability (women, slaves), and so epistemic performance was purchased at the cost of inclusivity and true equality. Ober does acknowledge this exclusion as both a grave moral failing and potentially a cause of lost knowledge, especially because the Athenians largely restricted testimony by slaves to that extracted under torture (Ober



2008, p. 259). But from a traditionally Aristotelian perspective, one might argue that the reason why Athens succeeded epistemically was because of this exclusion—a feature, not a bug—and so if one wants to argue for Athens along epistemic lines, one ends up with a defense of aristocracy rather than democracy as such.

Yet many epistemic democrats would reject this reading of Aristotle, holding that the famous passage in III.11 in defense of the judgment of the many challenges the aristocratic reading. Though long read as a vehement critic of democracy, which he labeled a “perverse” regime, the *Politics* today is a primary source for epistemic democrats via the “summation argument,” or, as Waldron (1995) termed it, the “doctrine of the wisdom of the multitude.” The central passage reads as follows (Aristotle 1995, pp. 108–9):

There is this to be said for the many: each of them by himself may not be of a good quality; but when they all come together it is possible that they may surpass—collectively and as a body, although not individually—the quality of the few best, in much the same way that feasts to which many contribute may excel those provided at one person’s expense. For when there are many, each has his share of goodness and practical wisdom; and, when all meet together, the people may thus become something like a single person who, as he has many feet, many hands, and many senses, may also have many qualities of character and intelligence. This is the reason why the many are also better judges of music and the writings of poets: some appreciate one part, some another, and all together appreciate all. (III.11, 1281a43–b9)

The “potluck dinner” analogy has tantalizing possibilities for epistemic democracy, but the brevity and compression of the passage pose a challenge to readers (Cammack 2013, Ober 2013). One set of questions arises concerning the feast; for instance, scholars have challenged the Waldronian/democratic interpretation of the passage on the grounds that there is little evidence that the Greeks had potluck dinners, and thus the contribution must be something other than a casserole, i.e., money from virtuous participants (Cammack 2013, Lane 2013). Yet it seems unambiguous that the Greeks had collective meals akin to potlucks (Ober 2013). A second and more important question concerns the mechanism. Waldron argued that it would have been deliberative, but as Manin (2005) and others have noted, the passage contains no use of the standard term for deliberation, *sumbouleuein*, and its absence supports the argument that the mechanism is probably information pooling.

Even if we accept the straightforwardly epistemic reading of III.11, we might still ask whether this passage reflects Aristotle’s own view or simply his endoxic method, seeking to subject the opinions of others to critical scrutiny. There is ample competing evidence for the traditional view of Aristotle as a defender of aristocracy, if not monarchy, and *politeia* as the optimal regime only under certain circumstances. Situating political power with the many also courts the risk of unjust expropriation of the rich (III.10, 1281a15–17; VI.3, 1318a25–27). Finally, even if we grant that *Politics* III.11 does support an epistemic-democratic reading, we might also argue that there are more important justifications of democracy that we might glean from the text (Schwartzberg 2014a). Notably, citizens possess natural equality, and by necessity rule and are ruled in turn (II.2, 1261a30–1261b6). This equality consists in citizens’ rough ability to perform their two central functions—serving in the assembly and on a jury (III.1, 1275b19–20). Insofar as citizens deserve to be treated equally, in Aristotle’s account of the good citizen and the just distribution of offices and honors, it must be because they contribute equally to the good life of the community (III.2, 1277b13–17; III.5, 1280a22–31). Such an argument may provide both a more promising route to synthesizing Aristotle’s views on judgment and a more secure route for epistemic democracy, as the final section of this essay shows.



## Rousseau and the Condorcet Jury Theorem

Rousseau (1996 [1762]) is the patron saint of epistemic democrats; as we have seen, Cohen's (1986) canonical formulation of the position derived from his work on Rousseau. The central argument for epistemic democrats is from IV.2 of *Social Contract*:

When a law is proposed in the People's assembly, what they are being asked is not exactly whether they approve the proposal or reject it, but whether it does or does not conform to the general will, which is theirs; everyone states his opinion about this by casting a ballot, and the tally of the vote yields the declaration of the general will. Therefore when the opinion contrary to my own prevails, it proves nothing more than that I made a mistake and that what I took to be the general will was not.

Put briefly, the argument is that when the popular assembly votes on laws, each citizen judges independently whether the law accords with the general will, rather than whether he personally prefers the law. Once the votes are counted, the answer to the question "Does this law accord with the general will?" is revealed, assuming that the republic is generally well-ordered.

Shortly after the Coleman and Ferejohn & Cohen articles appeared in *Ethics*, a set of important essays in the *American Political Science Review* drew out the implications of the Condorcet Jury Theorem (CJT) for epistemic democracy, reading Rousseau through Condorcet. The CJT holds that if the average voter has a greater than 50% probability of choosing correctly between a pair of alternatives, the probability of the majority vote being correct increases to 1 as the size of the group increases. It runs on the law of large numbers; a coin weighted to turn up heads 51% of the time will generate a percentage of heads approaching 51% the more times it is tossed. Similarly, if each voter has a 51% chance of reaching the right answer, a majority vote of a very large group is extremely likely to turn up the right answer (Condorcet 1785).

Political scientists Grofman & Feld (1988) argued that the CJT helped to clarify the logic of the general will. Beyond that, however, they suggested their argument "provid[ed] a needed corrective to a current focus, in social choice theory, on treating all value questions in democratic theory as if they could be reduced to some aspect of the problem of aggregation of preferences" (Grofman & Feld 1988, p. 568). Social choice theorists, beginning with Black (1958), had rediscovered Condorcet in the context of the "paradox of cyclical majorities"; Grofman & Feld argued that this finding was "an incidental by-product" of Condorcet's efforts to determine "how groups could best make choices that were collectively optimal" (1988, p. 569).

The philosopher David Estlund, though skeptical of the value of the CJT in his recent work (Estlund 2008) recognized the importance of the Condorcetian reading of Rousseau for the conception of epistemic democracy (Estlund et al. 1989). As Cohen had argued, the general will was the necessary independent matter of fact, and the infallibility of the majority under the restrictive conditions specified by the CJT explained the mechanism by which outvoted citizens could be compelled to recognize their error. To be sure, the CJT had not been entirely neglected by democratic theory prior to the latter half of the 1980s. Barry (1965) had earlier recognized its power for democratic theory; Rawls (1971, p. 358) had rejected its use on the grounds that the "votes of different persons are not independent" because of the importance of deliberation. Yet Grofman & Feld, and their respondents Estlund and Waldron, presaged a resurgence of interest in the CJT in both positive and normative political theory, as scholars sought to demonstrate the power and generalizability of the CJT. Estlund (1994, p. 138), partly as a corrective to Rawls and Waldron, demonstrated that deliberation and even a degree of deference to opinion leaders would not harm the independence necessary for the CJT to operate; all that need hold is that "the probability of voter A voting correctly given that voter B does equals the probability of A's voting correctly



considered alone.” Goodin & List (2001) further expanded the scope and potential power of the CJT, which they termed the “jewel in the crown of epistemic democrats” (p. 283). They demonstrated that the CJT could be extended to plurality voting, and even where voter competence dropped below 50%, the plurality winner would most likely be the correct choice, assuming that each voter’s probability of voting for the correct outcome exceeds his or her probability of voting for the wrong outcome. Where there are four options, for instance, so long as each voter’s probability of voting correctly is better than 0.25, the correct option is most likely to be the plurality winner.

Yet the power of the CJT may be challenged, and the reasons get to the heart of the epistemic conception. The most obvious challenge is whether we should believe that most questions posed to democracy have right answers. Even a person charitably disposed to the epistemic model might reasonably believe that the scope of such truth-apt questions within democracy is quite small. The second is whether the CJT gets the mechanism right: Estlund (2008) argues that systematic biases can reduce effective competence beneath the 50% mark (as can problems of disjunction in terms of how alternatives are construed). Moreover, many scholars, including Estlund, express concerns about the exclusion of deliberation from the traditional Condorcetian model. In Estlund’s (2008, p. 232) words, “it is very natural and plausible to think that if democracy has any epistemic value it is partly to do with the sharing of diverse perspectives.” But the CJT does not draw on this source of competence. As we shall see, it is in part for this reason that alternative models incorporating deliberation are thought to be more promising.

### Mill as Epistemic Liberal

Because John Stuart Mill in *On Liberty* famously defended the liberal values of free discussion and inquiry, along with the assumption of fallibilism, as means of identifying and securing truth, he is often cited as a forerunner of a strain of epistemic democracy. To be sure, Mill throughout his work emphasized the importance of knowledge in collective decision making, as well as the role of debate in challenging assumptions. Yet Landemore (2013, p. 76) is correct to suggest that “Mill is probably more of an epistemic liberal. . . than an epistemic democrat.” Rather than arguing that democratic decision making will lead to wise decisions, Mill affirmed that a set of institutions protective of the individual liberty of inquiry and exchange would promote the discovery of truth.

In *Considerations on Representative Government* (1861), Mill advocated deliberation in the representative assembly as a means of expressing the variety of opinions in the nation as a whole. In this “Committee of Grievances” or “Congress of Opinions,” these opinions could be scrutinized and their ability to withstand criticism assessed, and the relative support for different positions could be made manifest. By demonstrating the strength of support for different opinions, citizens themselves could recognize whether or not they were in the majority, and the government could choose whether to act on their expressed opinions in generating legislation. Note that this is not an argument for collective knowledge or the wisdom of even representative bodies, let alone crowds. Robust debate, premised upon the assumption of fallibility, is necessary for truth to prevail—but it is insufficient. The assembly is specifically less knowledgeable than the Council of Legislation, and its members are unfit for the latter: “[T]hey are not a selection of the greatest political minds in the country,” but they criticize and exert control over the “specially trained and experienced Few,” who possess “acquired knowledge and practiced intelligence” (Mill 1991 [1861], pp. 283–84).

Moreover, Mill (1991 [1861]) defended the extension of the suffrage to all classes as a means of cultivation of both intelligence and sentiments; it is through “political discussion” (p. 328) that one becomes capable of identifying both one’s own interests and those of the wider society. Yet he excluded from the suffrage those who were illiterate or innumerate—“universal teaching



must precede universal enfranchisement” (p. 330)—and those receiving parish relief. Although we might look forward to eliminating the first criterion as a barrier to universal suffrage once the lower classes are educated, the dangers of doing so immediately would be class legislation and “too low a standard of political intelligence” (p. 333).

Focusing on the matter of intelligence, Mill (1991 [1861], p. 340) argued that there was no reason to think that inequality would ever be rectified—nor that it ought to be:

It is not useful, but hurtful, that the constitution of the country should declare ignorance to be entitled to as much political power as knowledge. The national institutions should place all things that they are concerned with, before the mind of the citizen in the light in which it is for his good that he should regard them: and as it is for his good that he should think that every one is entitled to some influence, but the better and wiser to more than others, it is important that this conviction should be professed by the State, and embodied in the national institutions.

He further declared the “false creed” that “any one man (with a white skin) is as good as any other” (p. 340) to be a weakness of the American character.

Although Mill defended universal suffrage among the literate/numerate, this problem of epistemic inequality among citizens constituted a challenge. Recognizing it as such, he defended a weighted voting scheme, offering more votes to members of the educated professions and to graduates of universities or those who passed an examination. This argument for plural voting on epistemic grounds constitutes one reason why some democratic theorists have rejected majority rule as a fair procedure and argued that democracy cannot be defended on intrinsic grounds. Contemporary democratic theorists critical of the notion of a wise multitude regularly cite Mill’s argument that “No one but a fool . . . feels offended by the acknowledgment that there are others whose opinions, and even whose wish, is entitled to a greater amount of consideration than his” (Mill 1991 [1861], p. 335). For instance, Arneson (1993), citing this claim, holds that the fact that citizens possess unequal capacity for practical and moral reasoning means that there is no right to any share—let alone an equal share—of political power, and thus democracy cannot be justified on intrinsic grounds. We shall return to this justificatory logic shortly.

### Pragmatist Epistemic Democracy

The structure of pragmatist inquiry has deep affinities with democratic values, notably diversity, deliberation, experimentalism, and revisability. Drawing on Dewey (1927) in particular, contemporary pragmatist democrats have appealed primarily to the fact of distributed knowledge and the distinctive benefits of democratic institutional design in harnessing and testing this knowledge. Yet scholars have noted that pragmatism is not perfectly compatible with epistemic democracy for at least two reasons. First, if pragmatism is at its core a model of scientific inquiry, it may entail a trade-off between the search for truth and the commitment to equality and inclusivity. Whereas democracy is at its core committed to equal respect, the pursuit of scientific truth may entail deference to the superior knowledge of experts (MacGilvray 2014).

Second, leading pragmatist political theorists, such as Knight & Johnson (2011), argue that in most political disputes there is no “fact of the matter waiting to be discovered” (p. 154) or procedure-independent standard—as epistemic democrats assume. Yet pragmatist epistemology—especially but not exclusively Peircean pragmatism—“aims to preserve the truth-aptness of moral and political beliefs/assertions,” though without appealing to transcendental claims (Misak & Talisse 2014, p. 367). “Aspiring to truth” is a “constitutive norm of belief” in such a model. The epistemic democrat’s view that a set of procedures provides (fallible) evidence of the right answer





or general will does not fall far short of such a model. Epistemic democratic procedures may thus be modeled on pragmatist inquiry, although doing so may lead to complications in the normative justification of democracy.

Again, Knight & Johnson (2011) suggest that a truly pragmatist democratic theory can operate without positing any procedure-independent standard. Yet in their magisterial *The Priority of Democracy*, they argue that the pragmatist justification of democracy is that “the conditions of causal efficacy are the same as the conditions of normative legitimacy” (p. 262). In other words, democracy has a claim to legitimacy if and only if its institutions effectively aggregate and assess disbursed information. Insofar as democracy coordinates our social interactions better than competing institutional forms do, it is justifiable strictly on those terms. This, in Knight & Johnson’s words, is the “lesson of tempered consequentialism” (p. 262). But here the procedure-independent standard of truth is replaced by that of causal efficacy. Their model is not purely procedural, insofar as the “key to establishing political obligation is the effective operation of democratic institutions” (p. 272). How might we know whether such democratic procedures operate effectively? Perhaps because of their reflexivity and the feedback mechanisms they enable. But then the model of legitimacy they defend is akin to epistemic proceduralism: the binding force of these procedures derives from the fallibly effective (if not “correct”) outcomes they produce, rather than from features of the procedures themselves.

It is for that reason, perhaps, that the Deweyan model of Anderson (2006, p. 10) regards the “criteria of success for democratic institutions [as] partly internal and partly external to the decision making process.” The success of a given law—in her example, a pollution law—depends on its consequences, e.g., whether the law reduces pollution to an acceptable level at an acceptable cost. But the decision to make pollution a matter of public concern, the relative importance of the law, and the assessment of its consequences are given by democratic procedures, and the legitimacy of the law derives in part from these procedures.

Anderson (2006, p. 17) is suspicious of other models: “[E]pistemic accounts of democracy, such as the Condorcet Jury Theorem, that represent the majority as virtually infallible, fail to explain the epistemic importance of postdecision dissent.” Likewise, in her view, the “diversity trumps ability” (DTA) theorem—which demonstrates that the independent guesses of members of diverse groups may outperform expert bodies—fails to provide for both universal inclusion and feedback mechanisms such as revision and periodic elections. Yet one might ask Anderson, Estlund, and others who challenge pooling models on the grounds that they do not incorporate deliberation or feedback whether the aim is to identify a weak epistemic model that might accord with ex ante democratic commitments or to choose the model that is most likely to help us discover true beliefs. If the aim is the latter, then the fact that both the CJT and the DTA model run afoul of deliberation and feedback ought not to concern us, unless their reliability is truly threatened by this deficiency. If the aim is the former, we may jettison the CJT and the DTA model at our epistemic peril. Anderson’s implication is that, in a sense, Deweyan democracy does it all: It specifies an optimal pragmatist set of procedures from the perspective of helping us to ascertain true beliefs, and it simultaneously realizes democratic decision making (see also Feurstein 2013). But where there is a trade-off—and MacGilvray (2014) gives us good reason to believe that there may often be one—we lack sufficient evidence to suggest where we ought to compromise. This is one important reason to test the models discussed in the next section.

## MECHANISMS OF EPISTEMIC DEMOCRACY

As we have seen, one of the strengths—and potential liabilities—of epistemic democracy is that its plausibility relies on the success of the institutional mechanisms it advocates. That is, epistemic



democracy is concerned to a great extent with comparative institutional design: with identifying the institutions that might best harness the dispersed knowledge of citizens. The key procedures are aggregative and deliberative, in a variety of forms both separate and combined, and often advocate roles for experts as advisers or reliance on subsidiary information-eliciting institutions such as markets (Hayek 1948). The core argument of Knight & Johnson (2011), for instance, is that democracy—via arguments and voting—does a better job of monitoring the first-order assignment of tasks than would markets, bureaucracies, or judges, in part because of its information-gathering abilities.

One mechanism, as we have seen, is the CJT, with its apparently minimal conditions and attendant liabilities, notably the requirement that the average citizen have a better than equal probability of reaching the right answer. A second is the “miracle of aggregation,” popularized by Surowiecki’s 2004 book *The Wisdom of Crowds*. The “miracle” is illustrated by the example of the British scientist Francis Galton at the 1906 annual West of England Fat Stock and Poultry Exhibition, in which the guesses of 800 attendees as to the weight of an ox proved to be within one pound of the true weight. The miracle runs, like the CJT, on independence and the assumption that individual guesses will have random or symmetrically distributed errors.

A third mechanism, widely recognized as the most promising, is the aforementioned “diversity trumps ability” theorem (DTA), developed by Scott Page with Lu Hong (Hong & Page 2004; see Thompson 2014 for criticism), and given normative valence by Landemore & Page (2014). The “conditional claim,” as Page (2007, p. 10) terms it, is that “random collections of intelligent problem solvers can outperform collections of the best individual problem solvers.” The conditions are as follows: “1) The problem must be difficult; 2) the perspectives and heuristics that the problem solvers possess must be diverse; 3) the set of problem solvers from which we choose our collection must be large; and 4) the collections of problem solvers must not be too small.” The reason why the DTA model works is that “diverse models tend to produce negatively correlated predictions,” which in turn produce better aggregate outcomes; the average is more accurate because the errors cancel. The corollary to the DTA model is the “crowd beats averages” law, which predicts that the average prediction of a crowd always outperforms the prediction of the crowd’s average member, and “with some regularity, crowds can outperform *any member* or all but a few of their members” (Hong & Page 2012, p. 56). This is because the squared error of the collective’s prediction is less than or equal to the averaged squared error of the individuals who make up the crowd.

If we accept the findings of Page and colleagues, we must still assess their value for democratic theory. What sorts of democratic bodies and what sorts of questions might satisfy these conditions? First, these problems are *predictive* in nature. Page suggests that a successful democracy would require voters to possess either accurate or diverse predictive models. He holds that whereas voters are unlikely to be especially accurate—“Most of us can’t even predict what we’re having for lunch,” he quips—they might well be moderately accurate but diverse. One reasonable question is whether the nature of democratic decision making is predictive. What does it mean to make accurate predictions over welfare policy? Does the predictor seek to answer the question “Which piece of legislation will be most effective in reducing the number of citizens at or below the poverty line?” or “Which piece of legislation will be most effective in reducing fraud?” If we believe most of the work of democratic decision making comes in arguing over ends rather than in making predictions of outcomes, we might think that the DTA model is not especially helpful.

Imagine, now, that we are seeking to predict who will perform better as US president. Here we might think that the problem is a difficult predictive issue with an enormous electorate—precisely the sort of question for which the DTA model provides leverage. But we confront a different epistemic difficulty: “[I]f we’re all partially informed *and* use similar models, then we



won't make good democratic decisions" (Page 2007, p. 346). If we by and large follow the same opinion leaders (e.g., if we all consume Fox News or MSNBC) or if we use the same bases for our evaluation (e.g., high unemployment rates), our predictions are likely to be highly flawed. Likewise, if we engage in deliberation, we are likely to be "contaminated" by others' views, losing our ostensibly judgment-promoting independence. So one important question persists: How should we assess the costs and benefits of deliberation on epistemic grounds? The DTA model and other aggregative mechanisms rely on independence among the members of the group. Yet we might think that the engine of these judgments—and what enables democracy to perform its functions in terms of monitoring and feedback—is deliberation. Deliberation may not produce CJT-busting dependence, as Estlund (1994) has suggested; again, only if the probability that one person votes for  $x$  is altered by the probability that another votes for  $x$  does deliberation harm independence. But we might plausibly think that if deliberation does not increase the likelihood that agents will alter each other's judgments it is not worth its costs: In the epistemic model, we want deliberation because we think that the exchange of information and the obligation to subject one's views to robust challenge will alter the probability of voting correctly (see also Peter 2013 for a procedural epistemic defense of deliberation).<sup>1</sup> Deliberation, to be sure, ought to accompany rather than supplant aggregation; Knight & Johnson (1994) suggest that its most valuable function is in reducing the dimensionality of conflict to improve the stability and coherence of democratic decision making. But deliberation may also cause epistemic harm. The risk of group polarization, "risky shifts," and the marginalization of would-be beneficial voices as deliberative spheres may reproduce existing biases (Sunstein 2001, Sanders 1997).

Because so much of the literature of epistemic democracy is construed in conditional terms, it is difficult to have confidence in its generalizability. Ought we to expect that virtually all groups of ordinary citizens, cross-nationally, are capable of generating intelligent decisions over a wide variety of domains? One important strategy for epistemic democracy as it develops is to identify with greater precision and—where possible—with empirical testing the conditions under which groups of ordinary citizens are most likely to produce wise decisions. Under what circumstances, with what set of individuals, should we expect a particular mechanism to provide the most reliable outcome? For instance, Fishkin (2009) has frequently suggested that "deliberative polls" substantially improve the knowledge of their participants, increasing the likelihood of wise decisions. Yet it is difficult to assess, for instance, how much of the knowledge acquired by Fishkin's deliberators derives from careful perusal of briefing materials and how much from deliberation. Absent replication of results, the external validity of deliberative polling is hard to assess. Ober (2013) advocates a hybrid model, "relevant expertise aggregation," in which domain experts play an important role in weighing and ranking options subject to judgment by ordinary citizens; such a model would also be ripe for testing. This approach—assessing the performance of a variety of models under different informational settings—would at least provide a stronger basis for epistemic democrats' claims. More generally, there is great potential for fruitful collaboration with scholars of public opinion and citizen knowledge, particularly in American politics, as this work

<sup>1</sup>Epistemic democrats almost universally identify deliberation as an important means of producing the wise outcomes that drive the agenda. But the role of deliberation in the argument for justifying democracy on epistemic grounds remains more ambiguous. Habermas (1996, p. 306), for instance, tends to conceptualize the outcome of deliberation followed by a majority vote as a "reasonable basis for a common practice" rather than a "correct outcome" as such. But he does emphasize that the majority opinion must always be regarded as fallible, subject to revision if the "minority convinces the majority that [the minority's] views are correct" (p. 306). We produce law via deliberation so as to solve problems that require the "assimilat[ion] of knowledge in order to program the regulation of conflicts and the pursuit of common goals" (p. 318). So although the aim of legislation, created through a deliberative procedure, is ultimately to produce informed responses to pressing political matters it is not the outcome but the inclusive and egalitarian nature of the procedures that generates its legitimacy



provides valuable insights into the competence of citizens both on the individual and aggregate levels (see, e.g., Converse 1964, Page & Shapiro 1992, Zaller 1992, Lupia & McCubbins 1998, Erikson et al. 2002).

## EPISTEMIC DEMOCRACY AND DEMOCRATIC LEGITIMACY

Apart from the empirical validity question, the other main liability of the provisional and conditional nature of the “wise crowds” claims emerges once the terrain shifts to the elevated question of legitimacy. Estlund (2008) is the most influential proponent of the possibility of justifying democratic decision making on epistemic grounds. He situates his position between two alternatives: one a “correctness theory,” the other a “fair proceduralism.” The correctness theory could be understood as the apogee of the epistemic approach: Political outcomes are legitimate if and only if they track the truth and otherwise do not bind. Although few political theorists would identify themselves as correctness theorists, it is possible to understand substantive or procedure-independent justifications of democracy in these terms. Take, for instance, Dworkin’s (1996) positing of a “choice-insensitive” category of decisions: moral issues that have right answers, as opposed to questions that ought to be resolved by recourse to people’s preferences (in his example, where to build a ballpark). When democratic citizens or their elected representatives reach the correct decision on matters of rights, their decision ought to be upheld, but when their interpretation of rights is incorrect—in Dworkin’s view, at odds with the commitment to equal concern for citizens—there is no cost to democracy in enabling a court to reverse the decision and correct it. When courts get the answer wrong and fail to protect equal concern for citizens, they do act undemocratically, but not because their members are unelected or unaccountable. In this model, we should regard democratic legitimacy in purely substantive terms, regarding its outcomes as binding solely by virtue of their protection of equal concern.

Estlund (2008) characterizes the deficiency of this view as running afoul of the “qualified acceptability” requirement. Laws may not be justifiable to all citizens holding reasonable points of view. “In a diverse community,” writes Estlund (2007, p. 99), “there is bound to be little agreement about whether a decision is legitimate, since there will be little agreement about whether it meets the independent standard of, say, justice.” A substantial minority might deny the correctness of a majority decision and argue that they are not obliged to comply with it. There might be reasonable disagreement about what constitutes justice or about whether a particular decision conforms to a shared principle of justice.

Note, however, that if we accept that reasonable citizens might disagree about what would constitute a just outcome, this would seem to complicate our ability to justify decision making with respect to the capacity to bring about such outcomes. How might we know whether we had succeeded or failed in reaching a just outcome? How would we pick out a procedure that would be more likely to generate a just or correct outcome if we reasonably disagreed about what such an outcome would be? **Again, there may not be such an independent standard of correct decisions—or if such a standard exists, we might not have any way of knowing whether we had reached it. If we knew the correct answer, after all, we might just implement it directly rather than relying on an imperfect procedure to do so (Gerlsbeck 2013).**

When we define and justify democratic decisions with respect to substantive principles, we identify a standard that some set of procedures must realize. For “equal concern,” dignity, or other values to operate, they must be given flesh through interpretation into law; they radically underspecify legitimate law. Reasonable citizens disagree about whether a particular piece of legislation is consonant with equal concern or dignity or autonomy, as do their legislators and justices. Yet a substantive justification of democracy, supported by judicial review, is tantamount to



an epistemic-procedural conception that identifies judges as the ultimate bearers of wisdom about the optimal interpretation of these principles. As the epistemic-proceduralist model suggests, judges may of course err—they may strike down legislation that realizes equal concern or preserve legislation that does not. But because they are likely to be correct (or so supporters of judicial review argue), their evaluation of the compatibility of law with substantive values rightly binds us. Ironically, such an argument may have special appeal to those who believe that the justification of democracy lies in its protection of a set of core values (e.g., Brettschneider 2007, 2012) but who are anxious about the extent to which ordinary citizens and their representatives will adequately protect them.

If democracy is justified by reference to its capacity to attain some end—whether wise decisions, rights protections, or causal efficacy in second-order functions—we must infer that when democracy fails to accomplish these ends it loses its rightful claim to authority. We have good reason to believe that democracies are more likely to protect the rights of their citizens than dictatorships (almost by definition), and—especially by protecting freedom of speech and association—better at collecting information than competing alternatives. This does help to shore up the defense, giving, for instance, Carlos Nino’s claim that democracy’s value consists in its reliability for discovering rights some *prima facie* plausibility (Nino 1996). But resting the legitimacy of democracy on its tendency to produce correct decisions would demand that we have a very high degree of confidence in its fallible capacity to attain these aims, and Nino himself emphasizes the contingent, contextual, gradual nature of these claims. Certainly, the empirical evidence adduced by epistemic democrats thus far is insufficient to support this degree of confidence.

Consider, for instance, those who scoff at the claim that ordinary citizens have the competence ascribed to them by epistemic democrats. Schumpeter (1950) is a classic source for such views. Caplan (2007) has recently argued, in explicit contrast to “wisdom of the crowds” arguments, that voters are irrational and that errors may be systematic: With respect to economic issues, they suffer from a variety of biases that distort their capacity to enact the correct policies. Note that the objection here to epistemic democracy is not that we lack an independently correct standard of judgment—it is given by Caplan’s reading of the consensus of economists, and the biases are antimarket (underestimating the “economic benefits of the market mechanism” [p. 30]), antforeign (underestimating the value of foreign trade), make-work (underestimating the value of “conserving labor” [p. 40] through increasing productivity), and pessimistic (overestimating the severity of economic promises and underestimating the resilience of the economy overall). But the obvious rejoinder to Caplan—that economists themselves disagree about how to weigh these values, and so the failure of citizens to support such policies, or to choose representatives who would enact policies along these lines, cannot constitute evidence of ignorance—shows the fragility of the epistemic model more generally.

A full-blown epistemic model relies on the claim that there is some correct decision waiting to be enacted by the collectively wise body of citizens by bringing their necessarily partial and incomplete judgments to bear through well-designed mechanisms. But our confidence in the epistemic model would be misplaced if (a) we disagree about the correct outcome or (b) we do not have a clear picture of either the distribution of errors or our citizens’ average probability of identifying the correct outcome, and therefore (c) we are not certain about which mechanism would be most likely in a given circumstance to help us achieve it.

Yet from the perspective of securing democratic legitimacy, the true deficiency of the epistemic-proceduralist model is that it gives us nowhere to turn. Estlund (2008) believes that epistemic proceduralism only applies, again, if there is an independent moral standard or, in Cohen’s (1986) language, an “independent standard of correct decisions.” Where this is not the case—and surely democracy must be largely occupied with questions that are not plausibly truth-apt, even if the



epistemic democrats are right that some important questions are—we are left merely with “fair procedures” (Estlund 2008, p. 107). But for Estlund, a fair procedure is merely an anonymous one that treats parties equally, criteria that might be satisfied by coin-flipping. As Stone (2011) argues, a random device such as a coin-flip is attractive in cases in which we explicitly do not want reasons to be brought to bear. But political decisions are precisely those in which we should want the outcome to be sensitive to reasons. As such, a fair democratic procedure should require that we (a) design institutions that will enable citizens to refine their judgments through public debate and scrutiny, if not formal deliberation, and then (b) create aggregative procedures that both minimize problems of instability and do not unduly favor one set of judgments. In other words, a fair procedure would be judgment-egalitarian. This is the deflationary approach to epistemic democracy; it rests on the last two prongs of Cohen’s (1986) conditions. Let us term it judgment democracy to distinguish it from epistemic democracy.

### A DEFLATIONARY MODEL: JUDGMENT DEMOCRACY

Judgment democracy takes as a first premise that citizens should be regarded as judges rather than mere bearers of brute preferences. Indeed, supporters of this view tend to suggest that the distinction between judgments and preferences or interests may be overdrawn. As Christiano (1996, p. 74) argues, “Citizens do not advance their interests directly; they advance what they believe to be their interests. So where there are conflicts of interests, they are conflicts between what citizens judge to be their interests.” Unlike models that presume purely self-interested voters, and unlike standard epistemic models, which presuppose that voters render judgments of an independent truth or common good, scholars in this vein are agnostic as to the content of judgments. Voters may judge their self-interest, or their “self-interest rightly understood” as members of a community, or what they believe to be a unique common good. The language of judgment marks our moral and epistemic respect for citizens, rather than indicating that citizens’ views should be oriented toward the good or true.

Judgment democracy offers a proceduralist or intrinsic justification. It holds that democratic decisions are given legitimacy through their origin in procedures that treat citizens equally as judges. It is proceduralist insofar as it does not prescribe substantive constraints on legitimate outcomes, recognizing that any such constraint would necessitate procedures to ascertain whether a particular decision has run afoul of it. It is intrinsic insofar as these procedures derive their value from treating citizens respectfully, although the particular procedures chosen (e.g., deliberation) may have purely instrumental rather than intrinsic merits in helping citizens to form high-quality judgments. Judgment democrats tend also to be judgment egalitarians: They defend majoritarian procedures on the grounds that they treat these judgments equally, although they may disagree about the circumstances in which derogations from majority rule may be permissible. Contemporary sources for such a view include Christiano (1996, 2008), Dahl (1989), Schwartzberg (2014b), and Waldron (1999).

Dahl’s “strong principle of equality” derives from two premises. The first is the “idea of intrinsic equality,” in particular its specification through the “principle of equal consideration of interests” (that each person has a claim to have her interests served, without one person’s interests possessing privilege *ex ante*). The second is the “presumption of personal autonomy,” which holds that “in the absence of a compelling showing to the contrary everyone should be assumed to be the best judge of his or her own good or interests” (Dahl 1989, p. 100). The strong principle of equality underlies the judgment model. If we believe the interests of each citizen should be weighed equally, and if we presume that every adult person is the best judge of her own interests, then every adult citizen should be taken to be equally competent to participate in decision making. Although Dahl



regards majority rule as defeasible under many circumstances, the majority principle derives from the commitment to treat citizens' judgments of their interests equally. Christiano (1996, 2008), Schwartzberg (2014b), and Waldron (1999) concur; majority rule is a means of weighing each person's vote equally, thereby conveying respect for them as judges with distinctive perspectives. As Waldron writes, "As long as objective values fail to disclose themselves to us, in our consciences or from the skies, in ways that leave no room for further disagreement about their character, all we have on earth are *opinions* or *beliefs* about objective value" (Waldron 1999, p. 111 fn. 62). All we can do, Waldron suggests, is respect the fact of disagreement.

For Dahl, as for Waldron, this also means that the fundamental right is of self-government through the democratic process. A democratic process cannot—will not—be sustained without a commitment to a set of primary political rights, interpreted and enforced by bearers of such rights (Dahl 1989). Waldron (1999, p. 250) claims similarly that rights are attributed to the individual by virtue of his "agency and capacity for moral thinking," rooted in the "conviction that he has the wherewithal to ponder responsibly whatever moral issues the choice involves." The appeal of democratic participation in questions concerning the scope and interpretation of rights—and the basis for Waldron's famous rejection of judicial review—is that it is a "rights-based" resolution of disagreement: "It calls upon the very capacities that rights *as such* connote, and it evinces a form of respect in the resolution of political disagreement which is continuous with the respect that rights as such evoke" (Waldron 1999, p. 252).

Judgment democracy embraces the two core features of epistemic democracy: respect for individuals' judgments and the importance of designing institutions to elicit, inform, and test these judgments. Like most epistemic democrats, judgment democrats would agree that individuals' beliefs should derive from deliberation, while emphasizing the value of aggregation as a means of affirming each individual's dignity. Judgment democrats also highlight the importance of counting votes equally (Waldron 1999, Schwartzberg 2014b). Rather than seeking collective wisdom, in Landmore & Elster's (2012, p. 6) preferred language, judgment democrats promote mechanisms that produce careful, reflective judgments of individuals. In so doing, the judgment model evinces the respect for citizens that epistemic democrats have long displayed. But it does so without requiring the yoke of an implausible and unachievable independent standard.

## CONCLUSION

Epistemic democracy has ascended in recent years, yet even its core mechanisms remain fragile and subject to challenge. In this essay, I have advocated two strategies for the development of the field—one empirical and one deflationary. Because the viability of epistemic democracy as a normative strategy depends on its capacity to be realized in practice, testing the core mechanisms over a range of domains is essential. One important locus in the coming years is likely to be the Internet, as "big data" and collective information processing may provide valuable insights into the accumulation of knowledge by ordinary citizens (Farrell & Shalizi 2012). Empirical testing would give us a clearer sense of the scope of the circumstances under which we might expect citizens to make intelligent decisions, either online or *en plein air*.

Beyond clarifying the scope and domain conditions, epistemic democrats may wish to temper the strength of their claims. I have argued that relinquishing the independent standard of correctness ought to be a first step. Yet even if epistemic democrats wish to hold onto "truth," there is a substantial risk to deploying the provisional and conditional claims for wise decisions as the basis for democratic legitimacy. The most attractive feature of epistemic democracy, beginning with the challenge to Riker, is its respect for the judgment of ordinary citizens. It is on this respect for citizens as bearers of judgment that a model of democratic legitimacy should rest.



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