
BOOK REVIEW

THE LURE OF LARGE NUMBERS

A CONSTITUTION OF MANY MINDS. By Cass R. Sunstein. Princeton, N.J.: Princeton Univ. Press. 2009. Pp. ix, 225. \$27.95.

LAW AND THE LIMITS OF REASON. By Adrian Vermeule. New York: Oxford Univ. Press. 2009. Pp. 1, 211. \$55.00.

*Reviewed by John Ferejohn**

INTRODUCTION

Professors Cass Sunstein and Adrian Vermeule have written provocative books¹ that ask important questions about how the U.S. constitutional system should regulate itself and, specifically, how much deference courts should show to other branches or “The People Themselves”² when interpreting the Constitution. This issue of deference has been warmly debated with the recent reinvigoration of various theories of popular constitutionalism that generally criticize judges for claiming a disproportionate share of interpretive authority.³ The innovation of the present authors is to introduce and apply research from collective choice theory and behavioral economics to inquire into the relative capacities of courts and other institutions to decide and manage fundamental constitutional issues. The thrust of both books is simple: the authors generally agree that judges do in practice frequently defer to “many minds” — to congressional majorities past or present, to executive branch policies, to judicial precedents, or to the public opinion — on important constitutional issues. And each author gives reasons to believe that, in some circumstances, such deference is justified partly because the other branches are likely to make better-informed decisions than one or a few sitting judges could. The authors differ greatly, however, on how and when deference is owed to other branches or to the people.

According to what the authors call “many-minds” arguments, the popular branches may sometimes enjoy an informational advantage

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¹ CASS R. SUNSTEIN, *A CONSTITUTION OF MANY MINDS* (2009); ADRIAN VERMEULE, *LAW AND THE LIMITS OF REASON* (2009).

² LARRY D. KRAMER, *THE PEOPLE THEMSELVES* (2004).

³ See, e.g., BARRY FRIEDMAN, *THE WILL OF THE PEOPLE* (2009); KRAMER, *supra* note 2.

over the courts, insofar as they take account of the judgments of a wide range of people in making decisions; this advantage, other things being equal, may lead them to produce better decisions. Part of this advantage can be traced to their sheer size compared to the courts. Part is also due to the diversity of their memberships compared to the judiciary. And part is due to the assumption that the other branches will have organized themselves fairly effectively to gather and process information, permitting them to take full advantage of their size and diversity. Moreover, if numerical superiority translates into informational advantages, the authors suggest no offsetting informational advantages held by judges. They offer no reasons to think that, when these conditions hold, precedent-based adjudication could plausibly draw on and distill the wisdom of the multitude of contemporaries or of past generations in a way that could offset the contemporary informational advantages of the popular branches.

Sunstein and Vermeule draw on similar analytical resources and arguments, including recent work in behavioral economics and cognitive sciences, but most prominently on Condorcet's classic work on majority rule as an information aggregation device. These streams of research share what I would call one of the two basic intuitions about social cooperation: that imperfectly rational and fairly unintelligent individuals may, in some circumstances, be able to combine to make collectively intelligent decisions.⁴ Each also draws on claims, based on related arguments, made for (and against) Edmund Burke's and F.A. Hayek's views about the (informational) wisdom of traditions and of the common law.⁵ Burke's and Hayek's views are complicated and difficult to work out precisely — Burke's position does not seem to be an obvious case of a many-minds argument at all; and Hayek relies on selection arguments that are contextually fragile and contested. I shall therefore concern myself with the authors' use of Condorcetian arguments to make institutional comparisons, and leave their treatment of Burkean and Hayekian grounds for judicial restraint for another day. And I will argue that both authors, to varying extents, focus too much on one kind of informational problem (aggregation) and too little on others (such as incentives to generate and transmit information).

⁴ The opposite intuition lies at the heart of Professor Kenneth Arrow's theory of social choice as well as public choice theory: that individually rational persons, acting collectively, are likely to produce collectively irrational decisions in some circumstances. See KENNETH J. ARROW, *SOCIAL CHOICE AND INDIVIDUAL VALUES* (2d ed. 1963).

⁵ See SUNSTEIN, *supra* note 1, at 36–51, 107–11; VERMEULE, *supra* note 1, at 33–36, 57–96. See generally EDMUND BURKE, *REFLECTIONS ON THE REVOLUTION IN FRANCE* (Frank M. Turner ed., Yale Univ. Press 2003) (1790); F.A. HAYEK, *THE CONSTITUTION OF LIBERTY* (1960).

I want to focus on two strategic issues that seem fundamental to both authors' arguments. One has to do with the ways in which the constitutional branches of the federal government — Congress, the judiciary, and the executive branch — have characteristically dealt with problems of information acquisition, transmission, and aggregation. My argument will be that all three entities employ mixtures of hierarchical and decentralized structures by delegating some decisionmaking authority to small subgroups while at the same time requiring them to convey information upwards to places where final decisions may be made. But the executive branch and Congress tend to employ somewhat more hierarchy in decisionmaking than the judiciary — in other words, they make more of their decisions at higher organizational levels. Congress, for example, relies for information on large staffs and research organizations and typically makes most of its important decisions on the chamber floors. Important executive branch decisions are also likely to be made or at least approved by the top officials. Hierarchical organization may enhance an institution's capacity to gather new information and to develop specialized expertise, but may also interfere with its ability to effectively transmit and aggregate information into collective decisions.

Second, partly because of the limitations of organizational strategies in hierarchies, institutions often attempt to create and inculcate what might be called a decisionmaking "culture" — a set of norms aimed at getting members to act in ways that are informationally beneficial to the organization as a whole. Part of a decisionmaking culture would include practices of deference to subgroup decisions or to the decisions of other institutions. Another part would have to do with how members should conduct themselves when deliberating as equals. These two aspects of cultural development may be called, respectively, organizational and deliberative. I will suggest that judicial decisionmaking culture, as I characterize it, may sometimes be more effective from an informational viewpoint than the decisionmaking cultures in the other branches.

Thus, while the popular branches may enjoy numerical advantages relative to the judiciary (and I do not completely concede even this point), one cannot conclude therefrom that they have always been able to organize themselves in a way that takes effective advantage of their superior numbers. Besides, as is recognized by the authors, it is not at all clear how much the advantage of large numbers extends to very

large groups.⁶ So bigness is not necessarily better when it comes to institutions.

As I said at the outset, while both authors use roughly similar analytical approaches, they appear to reach very different normative recommendations. It is not clear whether the differences arise from divergent assessments of informational arguments, from differing empirical beliefs, or from conflicting normative commitments. Where they agree — that in many cases certain statutes and administrative actions ought to attract more judicial deference than they do currently — I am sympathetic with their conclusions. Where they disagree — on the question of how far the recommended deference ought to extend in cases where fundamental rights may be at issue — I am inclined to favor Sunstein's views because in such cases the views of many minds need to be balanced against other considerations such as the rights of the few.

I. MANY MINDS AND JUDICIAL DEFERENCE

Sunstein argues that the Constitution is better understood as the product of many minds than as a judicial construction arrived at through some combination of originalist interpretation and constitutional common law. This claim is both descriptive and normative. He observes that “when Americans think of constitutional change, they focus on judicial interpretations, not on the role of their elected representatives or of citizens themselves. This is a major mistake.”⁷ Both judges and ordinary citizens are wrong to take such a court-centered view of the Constitution. For citizens such beliefs extend unwarranted credit to the judiciary as a constitutional creator; for judges these beliefs constitute an invitation to overconfidence and overreaching. Sunstein emphasizes that most of the important changes in constitutional arrangements actually have been a product of ordinary democratic processes: “Self-government, far more than judicial innovation, has been responsible for those adjustments.”⁸ He acknowledges that “the Supreme Court sometimes entrenches a new constitutional principle or a novel understanding of an old principle.”⁹ But, even when it does, “Often it is endorsing, fairly late, a judgment that has long attracted widespread social support from many minds.”¹⁰ The upshot of this line of argument is that the Constitution has been far more res-

⁶ The usual arguments are that very large groups must take in lots of incompetent members or that, in larger groups, there are collective action problems in acquiring costly information. My argument is that hierarchical organization further attenuates the advantages of size.

⁷ SUNSTEIN, *supra* note 1, at 3.

⁸ *Id.*

⁹ *Id.* at 4.

¹⁰ *Id.*

ponsive to evolving public attitudes and opinion, as recognized in law and policy, than is commonly thought and that constitutional law is (for that reason) substantially democratic in ways that are often overlooked.

These facts give judges reason to approach constitutional adjudication as a collaboration with the other branches, rather than as a pure exercise of judicial regulation. So, in a sense, the conclusion of Sunstein's many-minds argument is that, in many circumstances, contemporary judges, holding various interpretive views, should accord a good deal of respect to public opinion or to the popular branches. For example, "[i]n the areas of separation of powers and national security, Burkean minimalism deserves to have a major role If Congress and presidents have settled on certain accommodations, there is reason to believe that those accommodations make sense."¹¹ A consequentialist judge might also agree that judges should sometimes defer to many minds. She too might be willing "in unusual cases" to "support use of the passive virtues, narrow rulings, and deference to elected officials."¹² For a Justice aware of her own cognitive limitations, "If other branches have focused squarely on the constitutional question, and reached a consensus in favor of one or another view, the Court might well pay attention for epistemic reasons."¹³ Thus, while Sunstein does not recommend broad deference to elected officials or public opinion, he thinks that epistemic grounds for judicial deference to the other branches can appeal to judges of various interpretive persuasions.

Sunstein acknowledges that the conditions under which many-minds arguments have force are limited, especially when considering the public at large: the Many must have expressed their judgments on the same proposition; the average "mind" must be more likely to make a correct than incorrect judgment on the issue; persons' "votes" must be independent of each other; and persons' judgments must not be subject to systemic biases.¹⁴ There are various reasons why one or more of these assumptions can fail, especially on issues far removed from the everyday life of ordinary people. But many-minds arguments can apply whenever one body has an epistemic advantage over courts. Perhaps on separation of powers issues members of the elected branches are likely to have developed very informed views that are unbiased and somewhat independent as well, and for that reason de-

¹¹ *Id.* at 84–85. Sunstein thinks that Burkeans ought to be committed to many-minds justifications, which he argues would oppose reliance on a person's "private stock of wisdom" [in contrast] to the judgments embodied in long-standing practices." *Id.* at 91.

¹² *Id.* at 146.

¹³ *Id.* at 177.

¹⁴ *See id.* at 212.

serve judicial respect.¹⁵ Moreover, as I read him, Sunstein thinks that judges can express respect for many minds in a variety of ways other than deferring to the other branches, not least of all by developing constitutional common law doctrine that encodes and limits judicial deference in various ways.

In this last respect Sunstein disagrees with Vermeule's broad condemnation of constitutional common law. Indeed, Sunstein's defense of substantive due process seems largely based on evolved judicial doctrine: "It is true that the text of the due process clause is naturally read to be purely procedural . . . [but] the existence of a substantive component is well settled in current law."¹⁶ Still, he insists that judges must be prepared to overturn legislation, administrative actions, or judicial precedent when there is a failure of equal protection or substantive due process, especially when those acts jeopardize vulnerable minorities.¹⁷ In such circumstances judges cannot morally shirk their duty to protect individuals against unlawful state action. But in many other areas of constitutional law — especially those concerning the relative powers of governmental institutions — he argues that courts ought to let the other branches work out mutually acceptable arrangements among themselves and ought to be hesitant to disturb those conventions unless, of course, fundamental rights are put at risk.

One reason that Sunstein rejects broad judicial deference to the political branches is that he thinks informational arguments of the kind examined here are not fully adequate to determine when judges should defer to the other branches. But this qualifier might be fairly narrow: when confronting equal protection or due process issues, he thinks a nondeferential jurisprudence is appropriate even though, presumably, many minds may have endorsed discriminatory practices and are likely to produce backlash if judges overturn them. At the same time, he is reluctant to recommend judicial recognition of controversial new constitutional rights (such as euthanasia or gay marriage rights), or to ground new constitutional rights claims on the practices of other nations, partly on the ground that they are new within the context of U.S. law and likely to provoke popular backlash, and partly on his view that the importation of foreign materials would be costly, not usually very informative, and subject to opportunistic uses.¹⁸ So, while Sunstein is careful to show the limits of many-minds arguments,

¹⁵ I should say that I am skeptical about whether these claims are true.

¹⁶ SUNSTEIN, *supra* note 1, at 117.

¹⁷ Sunstein's rejection of Thayerism puts his view strongly opposite Vermeule's: Thayerian deference "will hardly seem a first-best to those who believe, as I do, that in some domains, relatively aggressive forms of substantive due process are both legitimate (in view of the precedents) and desirable." *Id.* at 118.

¹⁸ *Id.* at 209.

in certain areas he thinks judges might justifiably reject otherwise valid claims for constitutional protection.

Sunstein also recommends a more deferential stance when the political branches seem to have reached a stable agreement regarding how their powers should be apportioned. Because of the force of many-minds arguments, Sunstein argues that “in the areas of separation of powers . . . traditionalism deserves a great deal of support.”¹⁹ He seems inclined to recommend judicial deference in such cases because the political branches have come to some kind of “agreement” on how their powers should be shared, and this agreement, he thinks, is evidence that many minds (in those branches) have converged on a common judgment. He does not seem to worry very much about the political contexts in which Congress has delegated powers to the executive — the partisan makeup of the branches at the time, whether the nation had troops fighting overseas, or whether the country was in the midst of a severe economic depression, to take some examples — which might attenuate the informational content of the interbranch agreement by introducing bias or lack of independence into the judgments. As long as Congress has generally permitted the delegation to continue by, say, appropriating funds and not insisting on reclaiming lost territory, he seems to regard it as a settled judgment of many minds that deserves judicial respect for that reason.

If Sunstein starts with the modest project of undermining the strongly judge-centered view of constitutional law that he finds in courts and the legal academy while still preserving a significant space for judicial lawmaking, Vermeule is committed to a root-and-branch critique of judge-centered constitutionalism. Following Professor James Bradley Thayer’s landmark defense of judicial restraint,²⁰ he argues that judges ought to defer to the political branches — especially the executive — as a general matter, on the ground that decisions reached in agencies and legislatures are likely to be superior because they are based on more accurate judgments than those made by judges.²¹ Vermeule’s version of the many-minds argument therefore emphasizes that courts should defer not only to long-settled political conventions, but also to acts of the contemporary Congress and (especially, I believe) the executive, both of which have big numerical ad-

¹⁹ *Id.* at 213.

²⁰ James B. Thayer, *The Origin and Scope of the American Doctrine of Constitutional Law*, 7 HARV. L. REV. 129 (1893). Thayer restated his critical views of contemporary Supreme Court rulings in his reflection on Chief Justice John Marshall, arguing, “The judiciary, to-day, in dealing with the acts of co-ordinate legislatures, owes to the country no greater or clearer duty than that of keeping its hands off these acts wherever it is possible to do it.” JAMES BRADLEY THAYER, JOHN MARSHALL: AN ADDRESS 47 (1901).

²¹ VERMEULE, *supra* note 1, at 90–91, 122.

vantages relative to courts. He criticizes the view that judges ought to be seen as defenders of long-standing traditions against the hubristic actions of contemporary politicians, arguing that judicial methods have no special connection to social custom and in particular cannot claim any informational advantages that social practices may have.²²

Vermeule claims that many (perhaps most) judges and legal academics are *epistemic legalists* who think that judicial lawmaking is preferable to legislation on grounds of the cognitive advantages of courts compared to other institutions. Epistemic legalists follow Lord Mansfield and William Blackstone in thinking that the legislature is intrinsically defective as a forum for crafting good law; that it tends to be overconfident in its capacity to anticipate how its legislation will work; and that it is disinclined to defer to tradition and custom when it should.²³ Epistemic legalists think that judicial lawmaking, by relying heavily on custom and precedent and limiting the effects of statutes, produces better and more rational law.

Vermeule sees epistemic legalism as based on skeptical views about human rationality: epistemic legalists doubt the capacity of people to predict the effects of forward-looking (legislative) rules and think it better to rely on tradition, custom, and common law rather than legislation whenever possible. And they think that judges are better placed to find and apply these elements than legislators. Vermeule thinks that epistemic legalism is an ill-advised doctrine that cannot be founded on any plausible view of the comparative institutional capacities of courts versus the other branches.²⁴ It is a self-serving judicial ideology that fails to see and respect the right of the people, through their elected officials, to govern their own affairs. He prefers the Thayerian alternative, which accords a very high level of deference to acts of recent Congresses and administrative agencies.

Vermeule writes: "My constructive program is to propose a legal regime that I will call *the codified constitution*. . . . The codified constitution means that statutes and constitutional amendments, rather than judicial precedents in the common-law style, will do the bulk of the work in . . . updating constitutional law under changing circumstances."²⁵ He thinks that recognition by judges of their own cognitive disadvantages "affirmatively support[s] a larger role for lawmaking by legislatures and executive officials than is allowed under epistemic le-

²² *Id.* at 59–60.

²³ For a vivid description of Mansfield's and Blackstone's contempt of the legislature as a lawmaking forum, see DAVID LIEBERMAN, *THE PROVINCE OF LEGISLATION DETERMINED* 17–19 (1989).

²⁴ VERMEULE, *supra* note 1, at 122.

²⁵ *Id.* at 4.

galism — emphatically including constitutional lawmaking.”²⁶ Vermeule argues that this new and better regime could be brought about if judges would simply recognize their own cognitive incapacities and, as Thayer demanded, would show a proper respect to the legislature and to the people in letting them craft their own law.

While both authors agree that the Supreme Court does not show sufficient deference to decisions of the other branches, Sunstein and Vermeule come to roughly opposite conclusions in certain areas. Sunstein endorses a common law methodology for judges under the rubric of his preferred version of judicial minimalism.²⁷ Vermeule reserves his strongest criticisms for practices of common law constitutionalism, which, he argues, raise judicially established precedent above both constitutional and statutory text and original meanings. Both authors may agree about what judges should do when fundamental rights — especially those of disadvantaged minorities — are put at risk by legislation or agency action. Here Sunstein thinks that courts have special constitutional duties that cannot be sidestepped, so he is willing to risk a more or less traditional countermajoritarian posture.²⁸ I am not sure how much Vermeule would actually disagree with Sunstein if minority rights were severely infringed, but I suspect he would probably depart from Sunstein regarding whether Congress itself could be trusted to strike an appropriate balance statutorily, and as to when a court is entitled to conclude that legislation fails to respect rights in a way that requires judicial intervention.

Sunstein and Vermeule draw on similar theoretical sources, so it is not always easy to see why they end up in different places. For one thing, while Vermeule is generally skeptical about many-minds arguments, doubting that they are “general or robust,” he is “especially skeptical that they support a robust role for judicial lawmaking.”²⁹ Sunstein shares Vermeule’s skepticism about many-minds arguments — repeatedly laying out the restrictive conditions in which they apply — but his skepticism is applied to all governmental institutions and does not seem always to advantage one institution over another.³⁰ Sunstein himself has written extensively on informational pathologies to which many minds are vulnerable — especially informational cascades and polarization in deliberative processes — so it is not a surprise that his skepticism is empirically grounded and quite

²⁶ *Id.*

²⁷ See SUNSTEIN, *supra* note 1, at 60–63.

²⁸ See *id.* at 86–87.

²⁹ See VERMEULE, *supra* note 1, at 5.

³⁰ See SUNSTEIN, *supra* note 1, at 181–84.

general.³¹ Sunstein agrees that courts should extend a good deal of deference to political decisionmakers, who can in many cases be expected to make better informed judgments than judges could.³² But, as far as I understand him, Sunstein parts from Vermeule in thinking that Congress and the executive are also subject to informational pathologies that may lead them to trespass on fundamental rights and leave judges no choice except to step in and try to correct the mistake (even if the result of judicial action may not be perfect). Moreover, in such cases noninformational considerations, such as the social value of protecting rights for their own sake, may also trump the normal informational advantages enjoyed by Congress and the agencies.

Despite his announced skepticism about many-minds arguments, Vermeule thinks that courts should defer much more to Congress and the agencies in virtually all situations, and he grounds that claim in the informational superiority of those branches of government. His philosophical hero is Jeremy Bentham, who favored development of law through extensive legislative codification rather than through traditional common law processes.³³ Consistent with Bentham's reformist posture, Vermeule argues that the legislature should construct consistent statutory regulatory schemes and, as Thayer argued, that judges should mostly defer to statutes. Judges can do this by leaving (current or recent) statutes and administrative orders undisturbed unless they are unmistakably unconstitutional, not by developing common law doctrines of interpretation in which courts interpret "the meaning of vague or ambiguous constitutional texts by reference to tradition and precedent, rather than the original understanding."³⁴ But when it comes to applying an old constitutional text, Vermeule does not advocate court-centered originalist interpretation; rather, he thinks that "current legislatures are the decisionmakers in the best position, insofar as epistemic considerations are concerned, to oversee common-law constitutionalism."³⁵

Neither author thinks that informational arguments completely settle matters, but except for Sunstein's rights-based exception, neither really spells out when informational advantages should be weighed heavily and when other considerations might be more important. Neither really sketches a general account of what might be called demo-

³¹ E.g., Cass R. Sunstein, *The Law of Group Polarization*, in *DEBATING DELIBERATIVE DEMOCRACY* 80 (James S. Fishkin & Peter Laslett eds., 2003); Cass R. Sunstein, *Deliberative Trouble? Why Groups Go to Extremes*, 110 *YALE L.J.* 71 (2000).

³² See SUNSTEIN, *supra* note 1, at 213-14.

³³ VERMEULE, *supra* note 1, at 17-18. See generally JEREMY BENTHAM, "LEGISLATOR OF THE WORLD": WRITINGS ON CODIFICATION, LAW, AND EDUCATION (Philip Schofield & Jonathan Harris eds., Clarendon Press 1998).

³⁴ VERMEULE, *supra* note 1, at 57.

³⁵ *Id.* at 82.

cratic deference — how much deference are majoritarian institutions and practices owed in America (or in democracies in general)?

There is another difference between their two projects. Sunstein's normative recommendations are largely in the form of advice to judges, whereas Vermeule offers both advice and more general institutional prescriptions. Each advises judges on how to use the powers they have and each claims that informational considerations should sometimes lead them to defer to political agencies more often than they do now. Whether their advice is sound depends on the truth of the claim that in many cases the political branches are more likely to make good judgments than judges are. While both authors advance arguments for this claim with a great deal of caution and nuance, the strengths of their pro-deference claims depend on the idea that political branches are likely to make better policy than judges because of their numerical superiority.

Vermeule goes further and asks whether there are institutional reforms of the judiciary that would lead to better judicial outcomes. He argues that there is no reason, either in the Constitution or in logic, to allocate all of the seats on the Supreme Court to lawyers.³⁶ Requiring that Justices be lawyers exacerbates their already severe institutional handicap by limiting the diversity of views that are represented on the Court. As a nonlawyer, I can sympathize with this prescription — maybe I should recuse myself — but I think this prescription needs more argument than Vermeule offers. Moreover, it is not so clear that the Justices who end up on the Court are more homogeneous in their views than those who might be appointed if Vermeule's prescription were followed, especially after deliberating jointly. After all, as Vermeule recognizes, members of a court composed of nonlawyers and other specialists will probably exhibit considerable deference to expert views — maybe too much. It is not obvious that outcomes under Vermeule's model would be better than ones in which judges rely on specialized testimony obtained through trials and briefs (which are, after all, public and contested in a way that internal judicial deliberations may not be). And, as he recognizes, we need to understand how the search, nomination, and confirmation processes for these specialists would actually work, and that seems to be an open question at this point. This is not to say that Vermeule's proposal is not worth trying.

II. BIG NUMBERS AND SMALL

In the past few years, a number of writers have argued that crowds can make smart judgments, based on the notion that there is a lot of

³⁶ *Id.* at 123–25.

valuable information acquired by people in their everyday lives that can be used to make good collective choices if only the people are asked. James Surowiecki's recent book, *The Wisdom of Crowds*, exhibits many striking examples of the capacity of large groups to make accurate judgments.³⁷ His book starts with the famous statistician Sir Francis Galton's report on a country fair contest to guess the weight of an ox, where the average guess (of 800 contestants) ended up within a pound of the actual weight.³⁸ The people were presumably not experts on oxen or at weight-guessing generally, and the guesses were no doubt spread out over a wide range. But the average guess turned out to be very accurate. Other examples in the book seem almost magical — there are some where it is very hard to believe that there was any information content at all to be averaged.

In the case of weight-guessing, it seems plausible that people might have some idea, gained in the course of living and working in the world, about how much medium-sized things might weigh, and the law of large numbers suggests that these intuitions, when aggregated, may give a plausible account of why crowds make accurate judgments in this context. Of course, we have to assume that people's guesses are unbiased (centered on the actual weight of the ox) and are (approximately) statistically independent of one another.

Organizations such as Zagat, Google, Wikipedia, and Amazon are built on models that aggregate dispersed information from consumers or contributors, more or less mechanically, and echo it back to us in the form of advice or recommendations. The algorithms these models use are various — sometimes relying on voting (Zagat) or weighted voting (Google), sometimes on averaging, and sometimes on consensus formation (Wikipedia). And often these algorithms are extremely difficult to discover or describe. Indeed, the business models of such organizations depend on the opacity of their methods and on the methods' remaining proprietary. Oddsmakers and race tracks have used similar information aggregation devices for years, establishing market "prices" for various bets that equate supply and demand.

In some ways the idea that ordinary people can make wise choices is very old. Aristotle stated, "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"³⁹ Aristotle's argument was quite different from the one that Condorcet developed. Aristotle was not speaking of aggregating in-

³⁷ JAMES SUROWIECKI, *THE WISDOM OF CROWDS* (2005).

³⁸ *Id.* at xi–xiii.

³⁹ 3 ARISTOTLE, *POLITICS* § 1281a(39), reprinted in ARISTOTLE, *THE POLITICS* 108 (R.F. Stalley ed., Ernest Barker trans., Oxford Univ. Press 1995).

formation by voting or taking averages. Rather, he contemplated what might be called organizational solutions: ways in which a group gets its members to acquire information that can then be combined to solve common problems. Vermeule usefully points out that there are reasons to doubt Aristotle's argument for why the Many would always be wise.⁴⁰ Recent work on pathologies of information aggregation — the doctrinal paradox, for example — suggests that such a guarantee is not generally available.⁴¹ But that is not to say that organizational solutions for combining dispersed information never exist. In any case, I think the authors could have beneficially spent more time on organizational strategies of the kind Aristotle seemed to suggest. I shall return to this idea later.

The Condorcet theorem says that if each person is more likely to make a correct than an incorrect judgment about some matter of fact, and if each person's judgment is (statistically) independent of the others,⁴² then a judgment of the group (formed by taking a majority vote) has a higher probability of being correct than that of the average member and converges to one as the number of voters increase.⁴³ The theorem is a special case of the law of large numbers, which asserts that the average of independent random variables drawn from a fixed probability distribution converges (in some sense) to the mean of that distribution.

The attraction of Condorcet's theorem for theorists of democratic government is that it appears to offer a compelling basis for a theory of democracy.⁴⁴ If we see a government's practical problem in making

⁴⁰ VERMEULE, *supra* note 1, at 36–41.

⁴¹ The doctrinal paradox, whereby “the case-by-case resolution of a case differs from the issue-by-issue resolution of the identical case,” Lewis A. Kornhauser, *Modeling Collegial Courts* (pt. 2), 8 J.L. ECON. & ORG. 441, 453 (1992), was first introduced in Lewis A. Kornhauser & Lawrence G. Sager, *Unpacking the Court*, 96 YALE L.J. 82 (1986), where the focus was on decisionmaking problems in a collegial court. It has been generalized to apply to all group decisionmaking and deliberation and is sometimes called the discursive dilemma. See Christian List & Clemens Puppe, *Judgment Aggregation*, in THE HANDBOOK OF RATIONAL AND SOCIAL CHOICE 457 (Paul Anand et al. eds., 2009).

⁴² Tossing a coin several times is an example of statistical independence. The probability of the coin coming up heads on a particular toss does not depend on the outcome of any past tosses.

⁴³ MARQUIS DE CONDORCET, ESSAY ON THE APPLICATION OF MATHEMATICS TO THE THEORY OF DECISION-MAKING (1785), reprinted in CONDORCET: SELECTED WRITINGS 33, 48–49 (Keith Michael Baker ed., Bobbs-Merrill Co. 1976); see also VERMEULE, *supra* note 1, at 28–29.

⁴⁴ For a brief exposition of epistemic democratic theory, see Jules Coleman & John Ferejohn, *Democracy and Social Choice*, 97 ETHICS 6 (1986). Professor David Estlund offers a new theory of epistemic democracy that departs from Rousseau's or Condorcet's theories in various ways, especially in giving a kind of second-order account of democratic legitimacy: “epistemic proceduralism.” DAVID M. ESTLUND, DEMOCRATIC AUTHORITY 7 (2008). Like Sunstein and Vermeule, Estlund can be understood to provide normative reasons to defer to the judgments and commands of democratic institutions. See *id.*

a decision on some subject as deciding on the truth of some proposition — is policy *X* in the public interest or not? — then Condorcet's theorem gives a reason to recommend majority voting as a mode of governmental decisionmaking. Condorcet himself recognized that the applications of his theorem were not self-evident. And particularly he believed that judgmental competence (being more likely right than wrong) was scarce in society, and so, as a practical matter, he thought that decisionmaking bodies could not be made very large without surrendering their aggregative competence.

Some years before Condorcet wrote his essay, Rousseau proposed such an "epistemic" theory of government in which the appropriate role of legislation was precisely to determine whether it was true of a proposed law that it was a part of what he called the "general will" (or, what we might call the public interest).⁴⁵ He thought that something was in the common or public interest only if it was part of each person's individual interest, but he also thought that a person's private interest was likely to obscure her view of the interests she had in common with others. So each person was likely to be an unreliable judge of the common or public interest. Still, for Rousseau, as for Condorcet, the question posed is factual: is it true or not that a given norm or rule is in the common interest? For this reason, Rousseau and Condorcet are seen as advocating what is now called an "epistemic" approach to collective decisionmaking.

Drawing on an intuition that Condorcet developed later, Rousseau argued that the most reliable way to answer this question was to pose it to the whole body of citizens, who would then vote on it without prior discussion.⁴⁶ From a Condorcetian viewpoint, it is generally sensible to have more people voting than fewer — at least as long as voters are competent (more likely to be right than wrong about what is in the common interest) and their views are independent of one another. Partly for this reason, Rousseau recommended a kind of nondelegation principle: legislation should be decided by majority vote of the

⁴⁵ JEAN-JACQUES ROUSSEAU, *THE SOCIAL CONTRACT* 64 (Maurice Cranston trans., Penguin Books 1968) (1762).

⁴⁶ See *id.* at 157–68. There are some authors who resist the notion that Rousseau was opposed to deliberation. For example, see Jeremy Waldron's section of the discussion in David M. Estlund, Jeremy Waldron, Bernard Grofman & Scott L. Feld, *Democratic Theory and the Public Interest: Condorcet and Rousseau Revisited*, 83 AM. POL. SCI. REV. 1317, 1322–28 (1989). I think that Rousseau's text is fairly clear on the issue and that he gives a good explanation of this view. He thought that in an uncorrupted polity — offering early republican Rome as an example — public deliberations would be appropriate. But he also thought that modern states were already corrupt (as was late republican Rome on his account) and that public discussion would lead to intimidation and formation of factions, which would reduce the epistemic competence of the legislature. See ROUSSEAU, *supra* note 45, at 157–68.

whole citizen body.⁴⁷ This epistemic notion stands in contrast to a theory that recommends that governmental policy track the preferences of citizens in some sense, such as by choosing policies preferred by a majority or by the median voter.⁴⁸

Condorcet's original argument has been extended in various ways by a number of authors.⁴⁹ Many of these extensions essentially show that its basic logic applies to a wider range of circumstances than Condorcet himself considered. For example, it is not necessary that each person's informational signal be strictly statistically independent of those received by others; some amount of correlation would not undermine the conclusion of the theorem. It is not necessary either that everyone have the same minimal competence level (that is, be more likely to make a correct than an incorrect judgment). Competence levels could vary across the population and some individuals could be statistically incompetent as long as the average competence is above a certain level. Vermeule gives a good summary of these results and others.⁵⁰ Moreover, when people have nonindependent information, the addition of incompetent members can sometimes improve group competence.

Because large-number theorems of this kind have come to seem fairly robust and general, they have formed the basis of a number of recent popular books that have rightly received a good deal of attention for expositing statistical notions to wide audiences and indeed extending their interpretations beyond anything Condorcet or the other early probabilists could have envisioned. Notable among these works

⁴⁷ See ROUSSEAU, *supra* note 45, at 151–54. Rousseau offered another reason to oppose delegation of lawmaking to an elected assembly — namely that members of an elected legislature would tend to have a factional interest that might further cloud their judgments. *Id.* at 72–74. Rousseau was also careful to point out that his “nondelegation principle” applied only to legislation and not to other governmental actions (which he called acts of magistracy or administration). *Id.* at 70–72. And what counted as legislation was very narrowly confined to certain kinds of general and abstract propositions. *Id.* at 80–83. So he did not really put forward a theory of democracy in any recognizable sense. He thought that a good government (that is, one whose laws were appropriately chosen directly) was compatible with monarchy or aristocracy, which he regarded as different forms of organizing magistrates. *Id.* at 110–22. See generally Bernard Grofman & Scott L. Feld, *Rousseau's General Will: A Condorcetian Perspective*, 82 AM. POL. SCI. REV. 567 (1988).

⁴⁸ For the seminal statement of such an approach, see ANTHONY DOWNS, AN ECONOMIC THEORY OF DEMOCRACY 164–204 (1957). The notion that people are free to adopt any preference ordering is found in KENNETH J. ARROW, SOCIAL CHOICE AND INDIVIDUAL VALUES 24, 96 (2d ed. 1963), but is also a common assumption throughout the extensive literature on social choice theory.

⁴⁹ For two prominent examples, see Bernard Grofman, Guillermo Owen & Scott L. Feld, *Thirteen Theorems in Search of the Truth*, 15 THEORY & DECISION 261 (1983); and H.P. Young, *Condorcet's Theory of Voting*, 82 AM. POL. SCI. REV. 1231 (1988).

⁵⁰ VERMEULE, *supra* note 1, at 28–33.

is Professor Scott Page's book,⁵¹ which extends the narrowly statistical notion of independence to the much richer concept of diversity.⁵² Some of Vermeule's insights spring from this kind of idea.

Both Vermeule and Sunstein agree that the various mathematical extensions of Condorcet's arguments do not really settle the issue of their applicability to real problems.⁵³ For example, to apply the theorem properly to a real collective decision still demands that each member be asked the same question, and that the question can be understood to have an answer that is somehow fixed and (logically) independent of the outcome of the collective decision. And we need to have some reason to believe that people are generally competent to make decisions that are better than random chance and that their judgments are sufficiently independent. These are all hard issues to resolve in practice. But there are reasons to believe that as a decisionmaking group grows, average competence might decline — either because competence is scarce in society or because people have weaker incentives to gather or report information as the decisionmaking group gets larger. So, there might well be limits to the power one can get from Condorcetian aggregation.

Both authors also draw on a second sort of informational argument from the growing literature on behavioral economics (to which Sunstein has also contributed⁵⁴) that focuses on the cognitive capacities of human decisionmakers facing real problems of choice. The combination of these two streams of thought may appear a bit ironic in that the first takes a view of humans as rational in the way they form beliefs and generate and transmit information, whereas the second is usually understood as critical or corrective of the rationality hypothesis. But of course, both books are less concerned with theoretical purity than with establishing comparative claims about the epistemic capacities of courts relative to agencies, legislatures, and the public at large.

III. ORGANIZATION: RATIONALITY AND INFORMATION AGGREGATION

Any organization, in order to conduct itself intelligently, has to resolve three chronic informational problems. First, it has to motivate some members to acquire information relevant to possible actions, which may also require the acquisition of skills and abilities to recog-

⁵¹ SCOTT E. PAGE, *THE DIFFERENCE* (2007).

⁵² People can have diverse skills, beliefs, competences, preferences, or identities, and these different kinds of diversity may have very different influences on the epistemic competence of the group.

⁵³ See SUNSTEIN, *supra* note 1, at 212; VERMEULE, *supra* note 1, at 71–79.

⁵⁴ See sources cited *supra* note 31.

nize and interpret information. Second, it has to induce informed members to transmit acquired information — in ways that are credible — to those who make decisions. And finally, it needs to effectively aggregate or combine diverse information to permit informed collective decisions. Call these the problems of acquisition, transmission, and aggregation, respectively. Like other organizations, Congress, the judiciary, and the executive branch must resolve these problems to some extent in order to perform effectively.

Information is needed to guide both individual and collective actions, but information is often costly to generate and expensive to transmit to places where actions are taken. This problem is as true of public decisions — taken by governments or courts — as of private ones. Because of the costs of research and communication, it must be true that not all relevant information reaches places where it would matter. Sometimes the best response to this truism is to move actions to where the information is most cheaply produced. As Hayek argued, this is part of the attraction of the free market and is certainly a core attraction of liberalism more generally. One of the strongest arguments in favor of privatization (allocating goods through markets) is that markets effectively economize on the generation and transmission of decision-relevant information, at least in some circumstances. And democracy, at least on some conceptions, might be justified on the grounds that the people are capable, in some fashion, of governing themselves and doing a pretty good job of it. Rather than depending on experts or other elites to collect and aggregate disparate data in order to make policy, why not have people make their own choices that would then aggregate into collective action? Much of the enthusiasm for deliberation and democratization is animated by the same faith: that lots of knowledge and wisdom is widely distributed among ordinary people who could be relied upon to use it to make better collective choices than would be made by smaller groups of experts.⁵⁵

It is therefore important to ask how collective choice-making should best be organized from an informational viewpoint. There are

⁵⁵ See, e.g., SUROWIECKI, *supra* note 37. People may be a little more skeptical about these claims right now, following the recent implosion of financial markets. What seemed to be collective wisdom turned into seemingly irrational and self-destructive bubbles and cascades. Bubbles are not a new phenomenon to markets. To be sure, the housing bubble was vastly magnified by the behavior of elite financial players who promoted unrealistic mortgages, repackaged and sold them, and created and marketed a variety of other new and poorly understood financial products. But even if these new products had been less numerous, informational pathologies may have occurred anyway. This is not too surprising since, as I will argue, informational pathologies such as cascades are very closely related to the beneficial properties of information aggregation, at least if individuals are more or less rational. While it is possible of course that such phenomena could be traced to irrational “animal” spirits, fully rational persons are capable of producing lots of collectively irrational action.

two issues. Normatively, there may be better or worse ways to combine certain kinds of information, so it is important to organize informational processes in an appropriate way. Sometimes, as in Galton's prediction problem, we want to average the stated guesses of individuals. In other circumstances we might want to aggregate guesses in a more complex manner. According to Aristotle, "[t]his is the reason why the many are also better judges [than the few] of music and the writings of poets: some appreciate one part, some another, and all together appreciate all."⁵⁶ Markets combine information in very different ways than political institutions do, and the properties of their collective judgments depend on how dispersed information is (or is not) transmitted and combined. Moreover, organizations instill incentive systems that can influence which information will be generated, transmitted, and used. Even if there is a sense in which the Many *know* more than the Few, the information of the Many may not be available for making collective choices because of problems of incentives.

Consider the following example. Assume that (some) members of a group have information relevant to a decision and that we want to find a way to get that information communicated to the point of decision. The classical example is a jury in which each person, having sat through a trial, has made an individual judgment regarding which litigant should prevail, and in which the jurors need to make a collective decision one way or the other. Assume that there is a large number of jurors (perhaps twelve), that their judgments are independent (conditional on the trial), and that each member only wants to reach the "right" group decision — the decision that would be warranted if each member's judgments could be efficiently aggregated. And assume, as is common in criminal trials, that party *A* (the prosecution) prevails if and only if all jurors vote in her favor.

Suppose a juror, having watched the trial, decides (on that basis as well as on her prior beliefs) that Party *A* should not win (that is, the defendant is innocent). She is also aware that she must vote in a secret ballot for or against Party *A*. We assume that she is fully rational and can make logical inferences, and so she would notice that her vote would have no influence on the jury's decision unless all of the other voters voted for Party *A*. (In any other voting configuration, the jury would decide against Party *A* no matter how this particular juror votes.) Only if the others vote unanimously for Party *A* would her vote be "pivotal" in the sense of deciding the question. Therefore, she should be willing to take account of the information revealed by others in their votes by making her own vote conditional on being pivotal.

⁵⁶ ARISTOTLE, *supra* note 39, §1281a(39), at 108–09.

To fail to do that is to fail to take account of relevant information, which is a failure of rationality. So rationality requires that the vote she casts be made conditional on her vote being pivotal to the result, which implies that if the jury is large enough, she should vote for Party *A*, regardless of her own private information.⁵⁷

Of course, because the voting is secret, the voter herself does not know the voting pattern of the others at the time her vote is submitted. But because her vote is (rationally) conditioned on her vote being pivotal, she takes full account of this bit of information when her vote is cast. Thus, assuming the voter is motivated to help the group make the right decision, she ought not to vote her independent judgment (the one she came to immediately after the trial, before making her voting decision), for that would amount to asserting that her own private information is somehow superior to that of all the others combined. Rather, she should condition her vote on the additional information that is “effectively revealed” at the point her vote is cast: whether her vote is pivotal. The conclusion of this argument is that truthfully revealing private information cannot generally be an equilibrium strategy, so publicly motivated rational jurors will not necessarily reveal decision-relevant information “sincerely” precisely because they are motivated to reach the right decision.⁵⁸

This example rests on the assumption that the jurors do not deliberate prior to taking a vote. One would think that if the group deliberates prior to voting, the members would seek to persuade each other by conveying their private information, which would then become publicly available to the group. At that point, each individual could update his or her beliefs by using all public information; in a large group, their beliefs would converge. But is this the way deliberation would go if the jurors were rational and well motivated?

Assume that the jurors decide to deliberate about what to do and agree to adhere to the following deliberative norms: Treat each person

⁵⁷ This result could be interpreted as saying that the person would rationally vote insincerely in this case. I disagree. Suppose that the vote is taken in public rather than by secret ballot and that our juror is to vote last. And suppose that everyone has voted for Party *A*. At that point she should rationally have revised her beliefs to take account of this new information, and if the jury is large, she would form the sincere belief that Party *A* should prevail. And that is how she should vote. The difference between this circumstance and the one described above is that with a secret ballot she does not need to form a revised belief to have her vote take into account the new information embodied in pivotality.

⁵⁸ This conclusion is quite general in the following sense: for virtually all voting rules and virtually all configurations of beliefs and values attached to collective decisions, it is not an equilibrium for everyone truthfully to reveal her private information. This result is shown in David Austen-Smith & Jeffrey S. Banks, *Information Aggregation, Rationality, and the Condorcet Jury Theorem*, 90 AM. POL. SCI. REV. 34 (1996). Cf. Timothy Feddersen & Wolfgang Pesendorfer, *Convicting the Innocent: The Inferiority of Unanimous Jury Verdicts Under Strategic Voting*, 92 AM. POL. SCI. REV. 23, 24 (1998) (analyzing strategic behavior in the jury context).

as a source of potentially relevant information that may rationally influence your beliefs. Be willing to change your beliefs if you are presented with relevant evidence that rationally supports the change. And, whenever your turn to speak arrives, make arguments based on your current sincere beliefs (that is, those that you formed after the trial, updated by information you have arrived at as a result of deliberation up to that point in time). These norms seem to me to express a mutually respectful and open-minded approach to deliberation of the sort that advocates of deliberative democracy could embrace. I believe that if these norms were fully embraced by the jury, some information would be conveyed in deliberation. But it seems clear, from the argument of the previous paragraphs, that deliberation would not generally lead to anything like the complete revelation of private post-trial judgments.

Suppose the same juror described earlier listens to the group discussion; one member after another, having heard the trial evidence, introduces her own interpretation and presents a strong argument for why a judgment for Party *A* is warranted. When it is our juror's turn to talk, she will rationally take account of the information contained in these speeches and will update her beliefs in light of these reports. Thus, her beliefs will have changed from those she held just after the trial; if there were a number of pro-*A* speeches, they will change her beliefs in a pro-*A* direction even if her judgment following the trial was against Party *A*. In effect, we expect to observe a rational cascade, at least to the extent that she believes that each of the other jurors is in as good a position as she is to make a judgment regarding how the group should decide. If that is right, it seems plausible that the group will reach a unanimous judgment for Party *A* even though one (or possibly more) members thought, after the trial, that Party *A* should lose. In this case, information that is available to some group members, and relevant to making the jury decision, will not be shared and will not form part of the basis of the group decision.

This argument suggests that there is a tension between the two sets of norms I have posited. The first norm says that individual members should seek only to assure that the group reaches the right decision (the decision justified by the efficient aggregation of all private post-trial information). The other norms essentially say that deliberators ought to be willing to listen and make arguments with others in the group, and to change their beliefs when they hear a sufficient argument to do so. While the latter norms seem attractive, they have the effect of suppressing the revelation of private judgments by inducing rational informational cascades. This result suggests that one or the other set of norms ought to be adjusted. It seems clear enough which is the most likely candidate: the deliberative norms ought to be adjusted to demand that members be induced to reveal their private information, their pre-deliberative beliefs, even if, at the point of revela-

tion (for example, when making a speech) that information does not represent their current (all things considered) beliefs.

The conclusion is that well-motivated deliberators ought not to form their beliefs within the deliberative discussions, but rather should report the beliefs they have before deliberation begins. This amounts to recommending that prior to deliberating, the group take a “straw” vote — a vote that has no consequence other than to permit the public reporting of pre-deliberative beliefs. At that point, people will update their beliefs, and if the group is large enough, these beliefs will converge. Further deliberation will then be harmless in the sense that there is no harmful information cascade. But that is only because the straw vote requires simultaneous revelation of beliefs, so that no interim updating can occur.⁵⁹

The jury example is very simple and was chosen to illustrate what seems to be a general problem: that the revelation of privately held information — for example, information held by experts within an organization — is likely to conflict with the requirements of rationality. The strategy for dealing with this problem within a majoritarian institution (a legislature or collegial court) is to try to limit the effects of rationality by, for example, using a straw vote. There seems to be little doubt that this problem also arises in more complex organizational settings.⁶⁰

IV. COMPARING COURTS, CONGRESS, AND THE EXECUTIVE

Condorcet’s basic notion is that large groups of people can often make more precise or informative judgments than smaller groups. But he recognized that increasing group size can also reduce the competence of the average member. Vermeule notes that “there are three classes of mechanisms that might reduce the group’s decisionmaking competence as numbers increase: selection effects, incentives, and emotional and social influences.”⁶¹ I want to focus on the first two effects, as the third one seems dubious. Condorcet himself noted the possibility of selection effects: “A very numerous assembly cannot be composed

⁵⁹ For a fuller discussion of the value of a straw vote in this context, see Peter J. Coughlan, *In Defense of Unanimous Jury Verdicts: Mistrials, Communication, and Strategic Voting*, 94 AM. POL. SCI. REV. 375, 382–85 (2000). This example illustrates a general problem: full rationality may be inconsistent with full revelation of information by group members, even when group members are publicly motivated and engage in full and free deliberation in an ideal manner. The proposal to employ a straw vote is best seen, in this context, as a recommendation that people somehow be prevented, or prevent themselves, from being fully rational. Specifically, a straw vote prevents people from engaging in rational information cascades by making them all reveal their pre-deliberation beliefs, even if those beliefs might later change during deliberation.

⁶⁰ See Nabil I. Al-Najjar & Rann Smorodinsky, *Pivotal Players and the Characterization of Influence*, 92 J. ECON. THEORY 318 (2000).

⁶¹ VERMEULE, *supra* note 1, at 44–45.

of very enlightened men,"⁶² presumably because the pool of competent people is limited. Larger group size also reduces the (endogenous) incentive of each member to collect information because each person has less influence on the group's decision. As argued above, even ignoring information acquisition, there are incentives to conceal private information in large groups. Thus, selection and incentive effects operate to reduce individual competence in large groups. Whether these effects actually put a limit on optimal group size or determine what that limit is, however, would seem to depend on facts about how the group is organized to make decisions.

From this viewpoint, it is not clear to me that the advantage of numbers lies wholly on the side of the political branches relative to the judiciary. Here is why: To start, the judiciary in the United States is a large and complex organizational structure, with some twenty thousand judges serving in thousands of courtrooms organized into partly hierarchical decision systems.⁶³ Each court is characteristically decisive in the sense that each is governed by a single judge or by simple majority rule. And each court is asked to reach a final decision on any issue legitimately before it — a decision that will stand unless reversed at a higher level. This form of organization is quite different from that exhibited in legislatures or executive agencies. To a greater extent than in those other institutions, hierarchical regulation is mixed with a highly decentralized mode of decisionmaking that permits individual courts to reach decisions without checking with superiors, while still being subject to oversight and occasional regulation from above.

The hierarchical elements of judicial organization are quite complex within the federal system. Trial court decisions are typically subject to several levels of review, at least some of which are discretionary.⁶⁴ Moreover, higher-level courts nearly always defer to trial courts on questions of fact determination and other select issues unless judicial actions have been glaringly wrong. Normally, therefore, most of what is decided in trial courts is effectively final. So trial court judges have a strong reason to believe that what they say will greatly influence outcomes, not only for the litigants but also in other similar disputes. This gives lower court judges a powerful incentive to gather information and use it effectively to reach decisions that can withstand higher-level scrutiny.

⁶² *Id.* at 45 (quoting CONDORCET, *supra* note 43, at 49).

⁶³ And we could as well count lawyers — not only those who appear in courts, but also the legions of others whose efforts contribute to the judicial product.

⁶⁴ For an exploration of how lower courts may be controlled by higher courts in a simplified game theoretical setting, see McNollgast, *Politics and the Courts: A Positive Theory of Judicial Doctrine and the Rule of Law*, 68 S. CAL. L. REV. 1631, 1641-47 (1995).

Moreover, when lower court decisions are reviewed, they are always reviewed in multi-member panels, so several members of the appellate court need to agree that a reversible error has been made in order to overturn a lower court verdict. The size of appellate court panels typically expands as one moves up the hierarchy; as more judges need to agree that a trial court holding was incorrect in order to overturn it, these holdings gain increased protection. Finally, because of stare decisis, trial courts have a great deal of guidance regarding what kind of mistakes would lead appellate courts to challenge their decisions (and of course litigants' counsel will helpfully remind judges of all this). So for the most part, we would expect trial judges normally to get things right, or at least close enough to avoid having their decisions overturned.

Compare this situation to that in Congress. The two chambers are controlled by the majority parties to some extent, but each chamber is too large to do any but the simplest tasks when acting as one body. On most issues, therefore, the chambers largely confine themselves to ratifying, with minor changes, decisions reached elsewhere. Decision-making is mostly delegated to committees,⁶⁵ or to the party leaders. The pattern of delegation to committees is itself enhanced by less formal modes of delegation to staff and external entities (both inside and outside of government). The need to organize in this manner to get their jobs done faces members of Congress with a number of characteristic management problems associated with information acquisition, creation, and aggregation. Some of these issues are explored in Professor Keith Krehbiel's classic study, *Information and Legislative Organization*.⁶⁶ Krehbiel argues that legislative bodies will rationally organize committees so that they are representative of the chamber as a whole and will tend to defer to committee recommendations.⁶⁷ Moreover, in order to motivate committees to acquire and transmit information, legislative bodies will also be willing to confer some procedural privileges on them.⁶⁸

As with the judiciary, it seems appropriate to see Congress as a very large organization (especially if one counts staff and other private and public bodies who craft proposals) that is organized in a way that helps generate solutions to the problems of information acquisition, transmission, and aggregation. As with the judiciary, hierarchical elements are mixed with decentralized ones. Normally, committee decisions stand up with only minor changes. But this is because commit-

⁶⁵ Long ago, Woodrow Wilson noted that the real work of Congress is done in committees. WOODROW WILSON, *CONGRESSIONAL GOVERNMENT* 79 (Riverside Press 1901) (1885).

⁶⁶ KEITH KREHBIEL, *INFORMATION AND LEGISLATIVE ORGANIZATION* (1991).

⁶⁷ See *id.* at 105–50.

⁶⁸ See *id.* at 151–91.

tees are staffed in ways that ensure they share chamber preferences; hence, the agency problems associated with delegation are somewhat mitigated.

There are also some important differences between Congress and the judiciary. The first is that members of Congress usually make decisions in larger groups than judges do. And their decisions are less often final because they can be, and sometimes are, amended later on in the process. So legislators, more than judges, face collective action problems that can be expected to diminish their incentives to collect information, and probably, to increase their incentives to report what they learn in a distorted manner. As a result, on organizational grounds, one would expect congressional incentives to be fairly "low powered" and Congress to be less successful at solving informational problems than the judiciary, *ceteris paribus*.⁶⁹ Of course members of Congress are chosen from constituencies partly because they are able to convince voters that they are willing to listen to and sympathize with their problems and to be zealous advocates for constituent interests, whereas judges are not expected to be responsive to a constituency. So electoral connection may partly offset adverse effects of Congress's characteristic mode of organization.⁷⁰ But electoral considerations may distort congressional informational motivations as well, inducing legislators to overspecialize in serving their constituents and to neglect national or global issues.⁷¹ In this respect members of Congress characteristically have mixed normative motivations: serve their constituents but also pursue common national purposes even at the risk of losing office. Judges, by contrast, can be presumed to have a simpler or at least more univocal aim: find out what the law requires in each case they must decide.

Probably less needs to be said about the executive branch. On any way of counting, the executive branch of the federal government is larger than the other branches, but it is also more hierarchically organized; thus, information transmission costs are likely to be very high.⁷² As Vermeule notes, hierarchical organization forms bottlenecks that can stop or impede information flows in organizations.⁷³ And there is plenty of reason to think that there is a fair amount of top-down direc-

⁶⁹ Cf. OLIVER E. WILLIAMSON, *THE ECONOMIC INSTITUTIONS OF CAPITALISM* 131-62 (1985) (discussing how incentive effects determine the limits of firm size).

⁷⁰ See generally DAVID R. MAYHEW, *CONGRESS: THE ELECTORAL CONNECTION* (1974).

⁷¹ See generally BRUCE CAIN, JOHN FEREJOHN & MORRIS FIORINA, *THE PERSONAL VOTE* (1987); JOHN A. FEREJOHN, *PORK BARREL POLITICS* (1974).

⁷² The subject of information transmission costs within the executive bureaucracy is immense, of course, but a good summary view can be found in JAMES Q. WILSON, *BUREAUCRACY* (1989). For further discussion, see JOHN D. HUBER & CHARLES R. SHIPAN, *DELIBERATE DISCRETION?: THE INSTITUTIONAL FOUNDATIONS OF BUREAUCRATIC AUTONOMY* (2002).

⁷³ See VERMEULE, *supra* note 1, at 50-53.

tion within the executive branch and many imposed walls of secrecy as well. Professors Terry Moe and Scott Wilson have argued that the President has a very strong incentive to assure that things do not come out of the agencies that surprise or disadvantage him or his political party.⁷⁴ As time has gone by, Presidents of both parties have taken turns imposing new regulatory structures to try to discipline agencies. Sometimes presidential motivations seem reasonable — why should overenthusiastic regulatory agencies not have their proposed regulations subjected to a centralized cost-benefit test or to various other kinds of impact assessments? Whether these (or any other such clearance mechanisms) are a good idea or not, Moe and Wilson argue that the reason they are imposed is that it is in the President's institutional interest to impose them.⁷⁵ As a result, there is no reason to presume that all such mechanisms have a plausible justification even if cost-benefit testing itself might. It therefore is not clear whether hierarchical organization effectively eliminates many of the advantages of size.

It is possible, of course, to exaggerate the degree of hierarchy in agencies, and close studies of particular agencies usually find many nonhierarchical elements.⁷⁶ Still, as a comparative matter, there seems somewhat more use of top-down command-and-control mechanisms than in the other branches. Admittedly, the President and agencies have great motivation to gather information and to try to ensure that policies and regulations are responsive to the problems faced by the agencies.⁷⁷ But the form of bureaucratic organization may often work against that occurring to any great extent. Agencies need to develop expertise to do their jobs, but experts are often embedded in professional networks with their own internal norms and incentive systems. Finally, Congress is rarely willing to give up its own modes of oversight and influence on the agencies.⁷⁸ For these reasons, the motivations of bureaucrats are multifaceted and their normative obligations are complex and constantly contested.

⁷⁴ See Terry M. Moe & Scott A. Wilson, *Presidents and the Politics of Structure*, LAW & CONTEMP. PROBS., Spring 1994, at 1, 15–19.

⁷⁵ *Id.*

⁷⁶ See, e.g., HERBERT KAUFMAN, THE FOREST RANGER 23–87 (Res. for the Future 2006) (1960) (discussing forces that lead to decentralized decisionmaking in the U.S. Forest Service).

⁷⁷ See DAVID E. LEWIS, PRESIDENTS AND THE POLITICS OF AGENCY DESIGN (2003). For a view that emphasizes hierarchical aspects of presidential leadership, see Terry M. Moe & William G. Howell, *The Presidential Power of Unilateral Action*, 15 J.L. ECON. & ORG. 132 (1999).

⁷⁸ For many years, journalists lamented the relative absence of congressional oversight of administrative agencies. A more sophisticated view was introduced in Mathew D. McCubbins & Thomas Schwartz, *Congressional Oversight Overlooked: Police Patrols Versus Fire Alarms*, 28 AM. J. POL. SCI. 165 (1984).

In short, it is far from clear which organizational form is superior from the standpoint of resolving difficult informational problems. In a large agency and in Congress, it is difficult to get the incentives of individuals to line up with the duties of the organization. That seems less difficult within the judiciary, where each judge has extensive opportunities to shape outcomes and will only rarely be corrected at higher levels.

The conclusion of this argument is not that there is no reason for judicial deference to the other branches. Rather, it is that informational arguments will rarely be sufficient (or necessary) to ground the normative case for deferring to agencies and Congress. More traditional considerations will often deserve to play a larger role: judges are often not elected (and even if they are, they are not understood to have a duty to represent constituents), and they ought to leave ample room for the people or their representatives to establish policies (within constitutional limits) for democratic reasons, whether or not the elected branches are especially competent on informational grounds.

V. DIVERSITY: GOOD, BAD, AND UGLY

Vermeule argues that Congress and the executive branch exhibit more diversity than do members of the judiciary. Much of his support for this argument is that judges have all gone to law school and received somewhat standardized legal training, whereas many members of the other branches have not — at least not all of them. I agree that, from the standpoint of acquired skills, judges are probably not a very diverse population. There are members of other professions who serve in Congress or in executive branch positions (in very small numbers), and possibly these other skills are brought to bear in policymaking. Probably this happens to some extent in certain congressional committees, but comparatively little is actually known about how much of it occurs and whether it has much overall effect on the quality of congressional decisionmaking. And no doubt many specialists take some part in policymaking in the executive branch. But those with specialized skills probably work most often lower down in the policy process, inside agencies and bureaus, rather than at higher levels. Specialists face many problems in conveying their views in a credible fashion to those higher up — they tend to appear as single- (and small-) minded advocates who may not see the “big picture” very clearly.

But there is a bigger problem. As Professor Scott Page has argued, preference diversity can offset the advantages of skill diversity in ways that undercut informational advantages of specialization in large or-

ganizations.⁷⁹ Even if the members of the other branches have more diverse skills, it seems likely that their skill and preference diversity are correlated, which makes problems of information transmission even more difficult. To the extent that experts have different preferences than their nonexpert superiors, their bosses are less likely to accept their advice and the overall quality of decisions will be reduced. Judges do not face this problem to the same extent. For one thing, their skill levels are fairly uniform and therefore are likely to be uncorrelated with preference diversity. Moreover, it is a feature of judicial organization that trial court judges make decisions that will stand unless reversed. They do not need to persuade anyone else to take an action in the way that legislators or executive branch officials do. While collegial courts require some persuasion, they operate under a decisive voting rule that makes it relatively easy for a court majority to deal with incentive issues.

This is not to say that there is no merit to increasing the skill diversity within the judiciary, as Vermeule recommends. I like the idea of adding other kinds of professional expertise to courts, at least as an experiment. But if we were to implement that reform, my worry is that preference and skill diversity might well be correlated — and this could undermine the touted informational advantages of the reform. If we try to include other professions, we ought to try to assure that the appointments process is alert to this possibility.

As I have emphasized, I am more skeptical of Vermeule's inter-branch comparisons, at least when fuller account is taken of comparative organizational structures. What is relevant, it seems to me, is not how the population of judges compares to the population of legislators, but how the two organizations compare with one another in their informational performances on the specific tasks constitutionally allotted to them. On that question the jury is still out.

CONCLUSION

My argument is that there is not a strong case for judicial deference to the other branches based on comparative informational advantages, considered abstractly. Each of the governmental departments can take some advantage of large numbers. The leaders of the political branches have powerful incentives to be responsive to various social interests, but (1) these interests are diverse and unevenly expressed in the political process; (2) it is not clear that those lower down in the other branches actually share leaders' incentives; and (3) information related to responding to social problems is likely to be imperfectly

⁷⁹ PAGE, *supra* note 51, at 285–96.

communicated to decisionmakers. For these reasons Congress and the executive branch may not be very capable of finding effective solutions, despite their large size. The judiciary has, it seems to me, a somewhat simpler normative task — interpret and apply the law — but its decisionmakers have limited capacities to specialize. Nevertheless, the judiciary’s effective decisionmakers (ordinary judges) are typically closer to the point where information is produced and have strong incentives to make correct and durable decisions.

I agree with both authors (and virtually the entirety of the legal academy) that there is often a strong substantive argument to be made that judges ought to extend a good deal of deference to agency and congressional decisions. Sometimes this argument is best grounded in general “democratic” norms, but I think these are usually too vague and inconclusive to be of much assistance. Who can really think that agencies have all that much going for them in the way of democratic credentials? More often the justification for judicial deference is grounded not in the abstract tendency of agencies to make good decisions but in the qualities of the specific program and policies that are being challenged in court. Judges should willingly defer more to policy judgments arising from “good” policymaking processes, where the test of goodness is adherence to norms of democracy and effectiveness.

Elsewhere, Professor William Eskridge and I have suggested that it is possible to see many of the most important governmental programs as founded on “superstatutes,” which are policymaking regimes formed over a long time that address important and relatively stable social values.⁸⁰ These statutory regimes have generally attracted repeated revisits and reassessments by agencies, courts, and Congress (and the people themselves). They are, in this sense, exemplary deliberative institutions⁸¹ within the fabric of the American state. These regimes have also typically generated well-justified reputations for being responsive to vital interests in society but also respectful of value conflicts. They typically have evolved institutional practices of deliberative responsiveness that work well, and courts are well advised to defer somewhat to judgments made by agencies and Congress in normal circumstances. But Eskridge and I do not recommend judicial abdication in these cases. Rather, we think that judges have an active

⁸⁰ See WILLIAM N. ESKRIDGE, JR. & JOHN FERREJOHN, *A REPUBLIC OF STATUTES: THE NEW AMERICAN CONSTITUTION* (forthcoming 2010); William N. Eskridge, Jr. & John Ferrejohn, *Super-Statutes*, 50 *DUKE L.J.* 1215 (2001).

⁸¹ This term is inspired by JOHN RAWLS, *POLITICAL LIBERALISM* 231 (expanded ed., 2005) (“[T]he [S]upreme [C]ourt . . . serves as the exemplar of public reason.”) I agree with Rawls in a limited sense, but it seems that the superstatutory regimes typically exemplify more open deliberative practices.

role to play in encouraging popular input and improvements of the statutory regime over time.⁸² Other programs and agencies lack these features and deserve to be kept on shorter judicial leashes.

I agree with Vermeule that judges (like the rest of us) may tend to overestimate their own competence in making policy judgments and that some of them would probably be wise to stay awake when the class is talking about humility. But sometimes judges are right to be skeptical of policies made in Congress or the executive branch because of an abundant record of specific shortcomings. And judges ought not to presume that the apparent advantages of numbers and diversity are easily exploited in those branches. Thus, I would not recommend, as Sunstein sometimes seems to,⁸³ a general policy of judicial deference on separation of powers issues. Interbranch deals may not immediately encroach on protected liberties, but they can (alone or as part of a gradual process) change and undermine the democratic qualities of our government, as well as chill the exercise of liberties. Bargains of this kind, most often when Congress abdicates its prerogatives to the President, are often done in pursuit of worthy objectives, but their harmful consequences can affect all of us. And such abdications are often made in periods of crisis or in political contexts in which the consequences of the delegation are not likely to have been widely and soberly considered.⁸⁴ One reason we have courts and judges is to guard against inadvertent institutional concessions that Congress has been all too willing to make from time to time. I see no reason to tell judges that such deals should not be scrutinized in other, quieter circumstances and that they should not permit persons who were not parties to those bargains to argue their views in court.

⁸² William N. Eskridge, Jr. & John Ferejohn, *Constitutional Horticulture: Deliberation-Respecting Judicial Review*, 87 TEX. L. REV. 1273 (2009).

⁸³ See SUNSTEIN, *supra* note 1, at 213.

⁸⁴ The reader could name her own list of cases where courts were overly deferential to the other branches. Most people would start with *Korematsu v. United States*, 323 U.S. 214 (1944), of course, but one could add to that any number of others.