Three Models of Democratic Expertise

Alfred Moore

How can expertise best be integrated within democratic systems? And how can such systems best enable lay judgment of expert claims? These questions are obscured by the common framing of democratic politics against an imagined system of pure and unmixed expert rule or "epistocracy." Drawing on emerging research that attempts to think critically and institutionally about expertise, I distinguish three ways of democratically organizing relations between experts and non-experts: representative expertise, in which experts are taken to exercise limited and delegated power under the supervision of political representatives; participatory expertise, in which expertise is integrated with publics by means of directly participatory processes; and associative expertise, in which civil society groups, advocacy organizations, and social movements organize expert knowledge around the objectives of a self-organized association. Comparing these models according to the cognitive demands they make on lay citizens, the epistemic value of citizen contributions, and the ways in which they enable public scrutiny and contestation, I go on to explore how they can support and undermine one another, and how they can open up new questions about democracy, trust, and expertise in political science and political theory.

Anxieties about the place of expertise in democratic politics have become prominent in recent political science. However, these anxieties have too often been framed in terms of an implicit model of pure and unmixed expert rule or "epistocracy." This has left us unable to ask or answer important questions about how expertise can best be integrated within democratic systems, and how such systems can cope with the central problem of enabling lay judgment of expert claims. Consider, for instance, the growing body of work on political ignorance, which has led to arguments for restricting the scope of democratic decision-making, insulating expert-led decision processes from popular influence, introducing knowledge-based limitations on the franchise, or, at the extreme, advocating an explicitly undemocratic "meritocracy" (Achen and Bartels 2016; Bell 2015; Brennan 2016). These approaches have been criticised for operating with an implicit notion of "straw guardians," that is, "the argument that the only alternative to perfect responsiveness is deference to a selected group of guardians" (Sabl 2015, 354). But a parallel tendency can be found among political theorists. Theorists working on "epistemic democracy," for instance, focus on the potential role of collective wisdom in identifying or determining truth regarding morality or justice but bypass the specific problems of expertise in democratic systems by framing their arguments against a stylised regime of epistocracy (Estlund 2008).[1] As Hélène Landemore, for instance, puts it: "the relevant comparison . . . is not between democracy and that technocratic branch of the government but between democracy and oligarchy when both are equipped with a competent technocracy of that kind" (Landemore 2013, 204). In order to contrast the regime types of epistocracy and democracy these epistemic democrats bracket out the uses of expert knowledge *within* democratic systems. Similarly, research on process preferences has tended to treat rule by experts as an alternative way of running government rather than treat expertise as a crucial part of *any* political system that might be organised in different ways (Hibbing and Theiss-Morse 2002, 138). Anxieties about expertise also feature prominently in recent political science research on the theme of populism and technocracy (Bickerton and Invernizzi Acetti 2015). However, while populism has been subject to detailed analysis within

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this body of work, technocracy has usually been glossed in general accounts of "expert rule" in terms of "the centrality of rational speculation in identifying both the goals of a society and the means to implement them" (Caramani 2017, 54).

Whether the concern is about experts having too little influence in democratic politics or too much, there remains a tendency to invoke a straw man in the form of an imagined system of pure and unmixed expert rule. If we assume that in complex societies reliance on expertise is unavoidable, valuable, and yet potentially threatening to democratic ideals, then we need to devote more attention to the question of how reliance on expertise is organized and how its legitimacy might be sustained. This involves a shift in emphasis towards a political epistemology that pays closer attention to the organization of expertise in democratic systems. In developing this approach, valuable resources come from the sociology of science and from science and technology studies, which have attended closely to the construction and contestation of expertise, and in particular have drawn attention to the ways in which alternative claims to knowledge can be—and have been—marginalized in the production and application of expertise. There are political theorists who have already begun an engagement with this work and have sought to elaborate what it would mean to do a more democratic politics of expertise (Brown 2009, Moore 2017, Pamuk 2018, Turner 2003). In order to advance these emerging critical and institutional approaches to thinking about the epistemic dimensions of democracy, I aim to articulate three stylized models—representative, participatory, and associational—of the ways in which expertise can be engaged with, contested, and contributed to by broader publics, and show the ways in which these models can come into tension.

I should also note that my use of "models" in this essay is in the spirit of Schelling's comment on the "model as a tool" and a "help in communicating" (Schelling 1978, 90; from Johnson 2014, 547).[2] I aim to show in a simplified and stylized form a number of distinct ways of organizing relationships between citizens and experts, that is, different ways in which lay judgment can be engaged with expertise in ways that can be described as broadly democratic. The democratic models of expertise presented here do not involve claims about democracy tracking the truth of morality or justice, but they do suppose that making expert claims subject to public judgment is likely to make experts both more reliable in their technical judgments and to draw out the political assumptions and choices embedded within technical judgments in policy domains. These models, finally, are not meant to be exhaustive, or exclusive. They can—and do—coexist in our governmental systems, and they might usefully be combined in ways that maintain their democratic benefits without losing their downsides.

This reflection is organized as follows: I address the concept of expertise, and argue for a shift from the common focus on how lay people can identify the genuine experts to questions of how lay people and experts can jointly contribute to practical reasoning about action under conditions of complexity and uncertainty. The next sections will analyze three ways of institutionally organizing such practical judgment in terms of the demands they make on lay citizens, the nature of the epistemic contributions they draw from citizens, and how they enact processes of scrutiny and contestation of the substance, relevance, and limits of expert claims: *representative expertise*, in which experts are taken to exercise limited and delegated power under the supervision of political representatives; *participatory expertise*, in which expertise is integrated with publics by means of new institutional participatory processes; and *associative expertise*, in which civil society groups, advocacy organizations, and social movements organize expert knowledge around the specific political objectives of a self-organized association. The last section will then discuss some of the most important ways in which these models may interact, support, and undermine one another.

Expertise and the Problem of Judgment

By expertise I mean the possession of special knowledge, skills or experience rooted in the methods, norms, practices, and goals of a specific community and which is recognized as legitimate by the wider society. This involves an element of codified knowledge and practical experience recognized both by some community of peers, and by a broader public. This relational approach to expertise focuses attention on the audiences to which experts appeal. It also draws attention to the question of interestedness. In response to claims to expertise it is common to ask some version of the question: 'whose experts?' This sort of question invokes both the idea that expertise involves some special knowledge and a sense of the importance of independence. While it seems obvious to point to independence as a feature of expertise, what is typically at stake is in fact better described as divided loyalty (Schudson 2006, 499), in the sense that the expert is accountable at once to a community of peers and to a particular client, sponsor, or institution. This divided loyalty is particularly salient where experts work in government to advise on and execute policies decided by elected representatives and become torn between sincerely reporting what the evidence and their experience tells them, and what their political masters want to hear.[3] But even in contexts associated with advocacy (and thus, it would seem, a degree of overt partiality), those claiming expertise will typically also be concerned to maintain credibility in the eyes of the relevant expert community—indeed, their effectiveness may depend on this.

This relational framing of expertise can be contrasted with a realist view of expertise as the capacity to make true

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statements about the world (Goldman 2006). The realist approach focuses on the "expert-novice" problem, that is, the question of how non-experts can correctly identify the genuine experts. When A claims to possess some knowledge or skill that B does not, then not only does B not know what A knows (or claims to know); B is also in a poor position to judge or test A's claim to expertise. There are two common responses to this problem. One is that the non-expert must simply become an expert, that is to say, acquire the ability to share in the reasoning of the experts about the matter at hand. If people are not able or willing to make this effort, then they must resign themselves to a position of blind deference (Wolff 1970, 17). The other approach is to focus on the external heuristics and cues that non-experts might use to evaluate expert claims without drawing on any substantive knowledge of the matter at hand. Some recent work in social epistemology has been optimistic about the capacity of non-experts to successfully identify the "real" experts by making "second-order assessments of the consensus of trustworthy experts" (Anderson 2011, 144), observing mutual recognition among experts in the form of professional credentials, being able to assess conflicts of interest, and assessing a track record of predictions (Goldman 2006). Lupia and McCubbins have taken a similar approach to an analogous problem of judgment in respect of political ignorance, arguing that people would want to see that their putative authority had made "costly effort" in forming its judgments, that it would be penalized for lying, and that other entities would monitor and exert reputational pressure (Lupia and McCubbins 1998, 53-4). This sort of second-order evidence of epistemic reliability might be more or less reliable as a way of identifying genuine experts: Brewer (1998), drawing on the example of lay assessment of expert witnesses in the context of jury trials, is sceptical; Goldman (1999, 271), on the other hand, argues that by drawing on external cues, such as a track record, it is possible for the layperson to know *that* someone is an expert without knowing *how* or *why*.

However, this framing of the problem of judgment has three limitations when applied to expertise in political contexts. First, despite different assessments of precisely how and with what reliability non-experts might tell genuine from spurious claims to expert knowledge, the authors just cited agree that short of becoming an expert oneself, external signs and cues are the only game in town. Yet even if we concede that experts and non-experts cannot fully communicate, in the sense of sharing in the same reasoning, it nonetheless remains possible for laypeople to judge claims to expertise. That is, it is possible to have rational discussion in a way that does not involve mirroring expert reasoning. Melissa Lane (2014), for instance, resists the reduction of the problem of expertise to the problem of lay assessment of the truth of expert testimony, and argues that the central problem is practical judgment of expert claims in a context of uncertainty. In such contexts, the judgment that individuals can exercise over experts often depends on some degree of substantive engagement with their claims or products, even if it does not require mirroring their actual reasoning. Lane's account emphasizes the engagement of a certain form of *internal* judgment (of the claims themselves and the patterns of reasoning that generated them) and its interplay with external judgments, which extend from credentials to track record to interests and biases, but she emphasizes that few of the external forms are wholly free of the need of some degree of internal engagement. Thus, it is important to emphasize that such internal engagement does not require lay people to become what Collins and Evans (2007, 24) call "contributory" experts, able to actually perform the expert practice in question. Rather, it involves something more like "interactional expertise," which involves the ability to speak the language of a specialism even if one is not able to actually perform the practice (Collins and Evans 2007, 28). This remains a demanding task,[4] but is nonetheless feasible, and sufficient for making informed practical judgments on matters involving expert claims.

Secondly, the sorts of cases that have been the focus of discussions of the expert-novice problem are often those in which the expert claims and their bearing on the problem at hand is clear and simple. Goldman, for instance, uses the example of a putative expert predicting the time of an eclipse. Here the novice may be unable to share in the esoteric reasoning of the experts, which is to say, the "domain of propositions accessible only to the experts" (Goldman 2006, 32), but is clearly able to judge the exoteric claim, namely that the eclipse will happen at a particular time. However, while such stylized cases are clearly valuable for isolating elements of the problem of lay judgment of expert claims, they are a long way from the sorts of knowledge claims invoked within policy discussions. As Turner (2003) persuasively argues, the strict view of the impossibility of lay judgment of expert claims assumes cases of disciplined rationality, special forms of rational discussion that involve training and discipline, and self-limitations on what counts as evidence, characteristic of expert domains like science and law. These are, however, poor models of the way in which expertise is brought to bear on ill-structured problems in policy domains (Turner 2003, 46-70). In these contexts what is at stake is a process of inquiry that is itself guided by choices about the selection and evaluation of evidence that depend in non-trivial ways on the values of the participants. Furthermore, even on more narrowly specified questions, while we might think a layperson should defer to expert testimony in order to acquire true beliefs, there is always a chance they will be wrong. In deciding to defer, we are thus making a choice between the costs of the claim being true or false—we are taking on inductive risk—and

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this choice involves considerations of value (Douglas 2000).

Third, in the expert-novice framing the expert knowledge in question is implicitly conceived as a finished product to be transmitted to a non-expert. However, expertise in the context of ill-structured problems is not a finished product; rather it is conditioned by the institutional context in which it is brought to bear on practical problems. Consider, for example, two people with the same training and experience, one working for a government health department, another working for an advocacy group. In each case they would retain a connection to their expert community but might come to see the boundaries of that community and the nature of their expertise differently. For instance, a psychologist working as an autism advocate would perhaps be more likely to recognize the experiential expertise of the person with autism.[5] And from the other direction, experts working in a policy context might have a narrower conception of what counts as legitimate expertise. In a well-known example, experts from the UK's agriculture ministry failed to recognize the knowledge possessed by farmers when considering the effects of radioactive fallout on the sheep of Cumbria in the aftermath of the Chernobyl disaster (Wynne 1989). What is at stake in political contexts, then, is the process through which claims to expertise and the boundaries of legitimate expertise are advanced and contested. From this point of view, the question is not whether laypeople can correctly identify the true experts, but how the process of advancing, scrutinizing, and contesting claims to expertise is organized. It is in response to this problem that I frame the three models of democratic expertise developed below.

The central focus of the rest of this essay is on the different ways in which democratic systems can organize the weighing, scrutinizing, and contestation of expert claims in the evaluation of alternative courses of action. Within these processes it is of course important that lay people can learn from experts; the expert-novice problems do not go away. But in this context they take second place to a focus on the ways in which lay people—or their representatives—can gain the capacity for practical judgment of expertise as it bears on particular problems and alternative courses of action. The general considerations on the practical judgment of expertise raised in this section—that it involves a degree of internal engagement, and a process of scrutiny and contestation—can be cashed out in very different ways, involving different modalities of deliberation, different cognitive demands on citizens, different conceptions of the epistemic contribution of citizens, and different systemic effects. In the following sections I will discuss three schematic ways of democratically organizing public judgment in respect of claims to expertise, through mechanisms of representation, participation, and association, before going on to analyze the tensions within and between them.

Three Models of Democratic Expertise

Representative Expertise

Representative expertise characterizes a relationship between citizens and experts mediated through institutions of political representation. On this model experts are taken to exercise limited and delegated power under the supervision of political representatives. Representative expertise, as I use the term, involves a narrow view of political representation, in which a representative is understood to be in a principal-agent relationship with her constituents, authorized by them and accountable to them through periodic elections (Urbinati and Warren 2008).[6] The role of political representatives on this model is twofold: First, and most obviously, to provide a conduit for citizen concerns to enter the process of will-formation in representative institutions; Second, to exercise powers of scrutiny, control, and supervision over the conduct of the experts whose power they authorize.

The first key relationship, then, is between citizens and representatives. The role of citizens in this model depends on how the relationship between citizens and representatives is specified, but we can say in general terms that the cognitive demands on citizens are light. Citizens are not expected to acquire a capacity to independently evaluate expert claims. Nor are they expected to become the more general informed citizen invoked by epistocratic critics, incorporating the key findings of current economics, for instance, into their political judgments. Rather, as John Dewey put it, "the man who wears the shoe knows best that it pinches and where it pinches, even if the expert shoemaker is the best judge of how the trouble is to be remedied" (Dewey 1927, 207). Melissa Schwartzberg draws on Hayek to make a similar point: citizens possess local knowledge of their economic and social circumstances and the interests of themselves and those around them (Schwartzberg 2019, 3). The epistemic function of elections is to elicit this information. This means that the role of citizens is not to program the political system with the "correct" policies, either at the individual level or by leveraging ideas of collective wisdom, but rather to inform representatives more accurately about the nature and intensity of perceived problems, and to motivate them to seek solutions. It may be true that voters do not know much about the relative merits of particular policies, but on this model they do not need to. As Schwartzberg puts it, "even if voters are *uninformed*, that does not mean that their votes are *uninformative*" (2019, 20). Representative expertise models the epistemic contribution of citizens in terms of giving feedback on local circumstances and motivating the search for solutions and leaves the control of experts to representatives.

The second key relationship in representative expertise is between representatives and experts, and it involves the exercise of supervision and control by means of

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questioning, scrutinizing, making demands for justification, and evaluating the responses of those exercising expert judgment. It is important to note that in this model the representatives are not themselves experts; rather, they are to stand in for citizens in the capacity of judging expert claims. Scrutiny of experts is a demanding activity requiring knowledge and experience, including in skills of disputation and argumentation, but representatives are nonetheless typically in the position of a layperson.[7] It is for this reason that Max Weber recommended that parliaments should be equipped with strong and independent epistemic resources (Weber 1994, 179). Relatively little attention has been paid to the normative justification for resources for the development of expertise within parliaments.[8] Yet the model of representative expertise suggests the importance of possible measures such as the provision of greater research support for the opposition, and the strengthening of specifically parliamentary research resources, rather than reliance on knowledge mobilized within parties.

Participatory Expertise

Participatory expertise involves linking experts directly with publics by means of participatory processes, ranging from citizen's juries in technology assessment to minipublics designed to filter and integrate expert knowledge into a considered public judgment. Participatory expertise encompasses a wide range of different institutional designs, and differing degrees of empowerment, and different proposed connections to the other parts of the democratic system.[9] But they share a commitment to the idea that under the the right conditions of deliberative organization and support, ordinary citizens are perfectly capable of making informed judgments of complex expert claims.[10] The model of participatory expertise thus puts far higher cognitive demands on citizens than representative expertise. However, lay citizens are not expected or required to become full or "contributory" experts.[11] Rather, they are expected to do sufficient work to enable them to effectively judge, weigh, and evaluate claims to expertise and their bearing on a broader policy question. In this respect there is a parallel to the representative-expert relationship described in the previous section, but their democratic role is quite different.

Participatory expertise provides an alternative—in a less or more radical way, that is, as a supplement or a direct challenge—to the representative-expert relationship. The original idea of a "minipopulus" (later termed minipublic) that would generate informed public scrutiny of policy experts and generate demands for communicative justification before a wider public was outlined by Robert Dahl in response to the fear that delegations to experts within representative systems had become relations of "quasi-guardianship" (Dahl 1985, 89). In this respect, participatory expertise can be understood as providing a direct and non-electoral version of the sort of supervision and control described in the previous section. This line of thought has been developed by MacKenzie and Warren (2012), who argue that minipublics can both extend the participatory capacities of citizens by providing trustworthy information about complex policy deliberations, and influence conduct in the realm of administration by confronting experts with the judgments of a randomly selected group of informed citizens. Participatory expertise can thus be seen as a supplement to representative expertise, responding to weakening electoral legitimacy and the expansion of the executive by providing ways for expert bodies to generate non-electoral claims to democratic legitimacy and new lines of democratic accountability (Rosanvallon 2011).

Participatory expertise can also be seen as part of a fully functioning alternative to representative government. This more radical approach has been developed by Josiah Ober, who proposes a system of "relevant expertise aggregation," in which a direct and fully inclusive decision process is sequenced to allow for the (transparent) identification and weighing of relevant expert opinion in the formation of options to be put to the full public assembly for decision. He draws on Ancient Athenian examples but argues that even in a large and highly complex polity it is possible to imagine a direct and participatory process that would be able to identify, weigh, and evaluate claims to expertise. Such a process would be able to substitute—at least on an occasional basis and with respect to particular issues—for representative democracy. The possibility of such occasional substitution is necessary in order that delegated authority can actually be revocable. Furthermore, the real possibility of the "occasional expedient"of a directly empowered coupling of experts and citizens would serve as a more radical check on elite capture (Ober 2017, 155) than mere communicative accountability.

Associative Expertise

Associative expertise involves the creation, organization, or mobilization of expert knowledge around the aims and purposes of a self-organized association. This can take the form of civil society groups, advocacy organiztions, and social movements that acquire their own legitimacy as knowledgeable and link their expertise directly to the interests of their members. Such engagement between experts and non-experts can take place at the level of identifying and formulating problems, initiating inquiries, and intervening in ongoing research programmes. The demands made on citizens are in some respects similar to those in representative expertise: neither the individual voter nor the typical member of an association needs to know all the details of any particular issue; the judgment of expert knowledge is undertaken by a smaller group who

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acquire the capacity for practical judgment of expertise, or even full contributory expertise, to engage with or challenge expert judgments, or acquire and deploy their own expertise.

The cognitive contribution of lay citizens on this model takes the form not only of the formulation of new problems, but also the assessment, scrutiny, and critique of existing claims to expertise. AIDS activists, for instance, were able to acquire and mobilize expertise on behalf of those affected by the emerging threat of HIV–AIDS and successfully challenge what constituted "good science" in the conduct of clinical trials (Epstein 1996, 2). Callon, Lascoumes, and Barthe (2009, 89) note that the "vigilant presence of concerned groups" in the case of the problem of storing nuclear waste "fosters greater prudence and professional consciousness on the part of the researchers." It is not only a matter of capacity, however. It is also a matter of empowerment and motivation. Consider again the case of AIDS activists. Their inclusion in discussions of research protocols and the reorientation of norms of clinical and epidemiological research to their particular needs depended on the threat by activists to withhold their cooperation in drug trials. As I have argued elsewhere (2017, 108-9), "the threat of exit gave them the opportunity to exercise voice." Such confrontation does not in itself answer any of the substantive questions about what is to be done in particular cases. The democratic value comes from forcing putative authorities into communicative justifications of their practices, including "even epistemic norms of validity, reliability, and evidence" (Bohman 1999, 590).

There are two further points to highlight regarding associative expertise. The first is that this model most clearly and radically challenges the boundaries between experts and non-experts and problematizes the question of what counts as expertise and whose knowledge counts. This marks a contrast with representative and participatory expertise, each of which engage in weighing and scrutinizing a range of expert claims with respect to their bearing on common problems, but are more limited in their capacities for challenging the construction of expert knowledge itself. To put the point another way, while we might characterize representative expertise and participatory expertise as responding to a set of concerns about the power and position of experts within policy structures, associative expertise responds more directly to concerns about the power of expert discourse itself (Fischer 2000). In such associational contexts it is common for experts to be working alongside directly affected people, which may influence their own conceptions of the boundaries of legitimate expertise and foster a more critical stance vis-à-vis official experts.[12]

The second point is that associative expertise does not aim for impartiality. Rather, it is organized around group interests and mobilized in debates against other groups. Associative expertise can thus enable a closer and more dynamic relationship between citizens and experts than is the case for representative expertise (Callon, Lascoumes, and Barthe 2009, 34). At the systemic level this points toward a pluralist politics of expertise. Turner thus describes a shift from a model in which "public opinion [forms the] basis of a centralized sovereign legislature with a powerful (and largely self-sufficient with respect to expert knowledge) bureaucracy" towards "a Tocquevillean form in which the bulk of 'political' activity, that is to say the bulk of the rational persuasion, is done in intermediate bodies that the central state is compelled to respect and take seriously, because it has no self-sufficient alternative source of knowledge, and because these bodies have their own legitimacy as 'expert' or 'knowledgeable'" (Turner 2003, 79). The overt partiality of this way of organizing citizen-expert relations marks a contrast also with participatory expertise, which is closely associated with the ideal of a general public (often constructed through mechanisms of random selection). Participatory expertise invokes —and can even embody—the logic of the expert as an "honest broker" of policy alternatives (Pielke 2007, 2); associative expertise supports the role of experts as "issue advocates" (ibid.).

Systemic Entanglements

The practical public judgment of expertise—involving both some degree of internal engagement with expert claims, and a process of scrutiny or contestation—can thus be organized into democratic politics in very different ways. In the analysis so far I have focused on the ways in which these models make different cognitive demands on lay citizens, construe the epistemic contribution of those citizens in different ways, and employ different modalities of deliberation in the process of scrutinizing expert practices. In this section I want to focus on the systemic effects of these models and the ways in which they interact: How might these different ways of organizing public judgment of expertise hang together? Do they support or complement one another? When, and how, might they come into tension? Such questions open up a large range of possibilities. I will attempt in this section to sketch some of the most important ways in which we might think of interactions and trade-offs between the modes of engagement supported by these different models.

The first tension I want to discuss involves the systemic effects of associative expertise. We have seen earlier that associative expertise is particularly well suited to incubating more radical challenges to expert discourses, contesting the boundaries between experts and non-experts, changing the agenda and framing of public problems, and even shaping and producing new knowledge. Indeed, it seems clear that associative expertise is a better vehicle than participatory or representative expertise for some forms of epistemic inclusion, such as inclusion of the lay

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knowledge of their members even if such knowledge claims are not recognized by official experts or a mainstream expert consensus. In cases of epistemic injustice (Fricker 2007), for instance, where someone is wronged in their capacity as a knower, associations provide an organizational site for the articulation and development of their epistemic claims as well as developing the hermeneutic resources to make sense of specific problems, and can contribute to the co-production of expertise in the course of the discovery and definition of new public problems (Callon, Lascoumes, and Barthe 2009). The engagement between citizens and experts within associations, then, can contribute to the systemic good of challenging and contesting the assessments of experts in various contexts, with the effect of bringing out the normative stakes implicit in technical judgments and contributing to the shaping of specific decisions around thresholds of risk (as exemplified by the AIDS activists mentioned earlier). Yet at the systemic level there is a potential tension between the pluralistic and contestatory politics of knowledge associations and the idea of expertise concentrated in administration and guided by the collective will constructed through electoral institutions. A democratically authorized public policy on, say, immunization, might be countered and contested by an array of associations. The public constructed through the assertion of their diverse group interests could undermine the public constructed through the procedures of representative government. Bohman thus recognizes that what I have called associative expertise amounts to a form of "democratization outside the representative state" (Bohman 2000, 61), yet he does not clearly enough emphasize the potential for a real conflict and trade-off between them.

A closely related tension arising from critical contestation of expertise within civil society can be seen in relation to the good of informing public and political deliberation. It is common to frame the proper relation of expert knowledge to broader public deliberation in terms of the value of deference to a well-formed expert consensus. Deliberation and (reasonable) disagreement, as Christiano puts it, should reflect "the status quaestionis [state of investigation or scholarly consensus] in the relevant reliable scholarly disciplines" (Christiano 2012, 31). The proper role of experts is to function as an "external filter" on the deliberations of citizens and politicians that "rules out" certain theories, leaving them to choose from the filtered set (Christiano 2012, 42). Deference to a consensus of experts in turn "presumes a certain amount of trust," as Gutmann and Thompson (2004, 146) put it—but, they add, "not blind trust." Lay people should not "accept these conclusions uncritically." The tension here is that the practices of public contestation and scrutiny of expert claims can have collateral damage with respect to the communication of a robust consensus of experts on a particular issue. Furthermore, the actors involved are aware of this, and may seek to strategically present consensus—such activity has been documented in cases ranging from an expert committee advising on safe levels of radiation (Beatty 2006) to economists talking about trade policy, admitting behind closed doors to reservations, qualifications, ambiguities, uncertainties, and disagreements that they would not present in public (Rodrik 2015, 65)—or to strategically dispute an expert consensus in an attempt to manufacture doubt (Oreskes and Conway 2010).[13] This tension is hard to escape, since one of the conditions of the trustworthy production of expert authority is a context in which at least some actors can—and do—challenge and contest those judgments such as to draw out justifications from those (putative) authorities (Warren 1996, 55). Trustworthy expertise may depend on the presence of a critical public sphere whose activity is premised on—and can, intentionally or not, promote—distrust.

Participatory expertise can be seen, at least in part, as an attempt to respond to the perceived need for intermediaries capable of producing trustworthy judgments of the balance of expert opinion—serving as an honest broker—for wider publics. It is noteworthy that in this respect it is often explicitly defined against associative expertise. In the design of minipublics there is often an emphasis on identifying "pure" rather than "partisan" publics (Braun and Schultz 2010), that is, citizens who are not already part of organized advocacy or interest groups regarding the issue under discussion. The point of such exclusion is to prevent "intensive and well-organized interests" from "swamp[ing] unorganized interests or latent public interests" (MacKenzie and Warren 2012, 108). Knowledge is crucial to the meaning of "organisation" of interests in this context, and, specifically, what is at stake are different ways of organizing the citizens' role of judging knowledge claims and their bearing on complex policy questions. For instance, the Citizens' Initiative Review—in which randomly selected citizens draw on expert assessments and examine competing claims in order to produce for the general public a balanced review of available evidence and arguments on a particular issue—is explicitly designed to counter presentations of evidence made directly to the public by advocates and interest groups (Gastil, Richards, and Knobloch 2014). By testing and filtering claims and drawing on carefully balanced and selected assessments of the current state of knowledge in particular domains, the participants in the process are able to exercise practical judgments about what the evidence does and does not support, and to communicate this judgment to a wider public. The role of minipublics can thus be described as that of a "trust proxy," in virtue of communicating to a wider public a collective judgment that can be trusted on the grounds that it was produced by a group that was both descriptively representative and technically competent regarding the issues under discussion (MacKenzie and

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Warren 2012, 113). There remains an active debate over the question whether minipublics serve to augment and support wider public deliberations, or whether they in fact represent an attempt to "bypass" public debate and democratic decision (Urbinati 2010, 75), amounting to an illusory "short cut" to the necessary improvement of the quality of deliberation in the broader public sphere (Lafont 2015), though to a great extent the answer to this question will depend on the particular context of application and the way in which minipublics are framed and conducted.

This does not, of course, exhaust the potential range of systemic interactions and tensions. However, it serves to illustrate the difficulty of realizing at the same time the various goals of generating robust critical scrutiny of experts, informing public deliberation with the best available expert knowledge, efficiently and effectively realizing democratically chosen ends, and opening space for the creation of new problem framings and challenging the boundaries of expert knowledge itself. It also shows the value of focusing on the ways in which expert-citizen relations are mediated. The importance of mediation is evident when we consider widespread calls for "transparency" as a means to open up expertise to public scrutiny (Beatty and Moore 2010, 211; Guston 2005, 401; Jasanoff 2003, 160; Wilsdon and Willis 2004). Setting aside the issue of the costs of transparency quite generally,[14] there are at least two further issues in relation to expertise. One is that transparency can create incentives for the expert to act in a way that conforms to what the lay person regards as appropriate, rather than what the expert regards as the most effective action. If experts find themselves constrained to act in ways that are considered appropriate by an audience unfamiliar with the conditions of expert judgment, then we risk in effect replacing expert judgment with that of the non-expert audience, with detrimental effects on the quality of decisions (see Prat 2005). Another issue is that to the extent that expert knowledge involves tacit knowledge, in which you know how to do things without being able to fully explain how you are doing them, demands for transparency and openness risk weakening the expert judgment from which you hope to benefit by reducing it to that which can be made explicit. This is not to oppose calls for greater transparency in the production and communication of expertise,[15] but simply to highlight the demands it puts on the recipients to process and judge those claims, something that is itself often a specialized activity. A great deal depends on the conduct and quality of the intermediaries and institutions through which justification and accountability are enacted.

Conclusion

Political scientists are right to be anxious about questions of expert power in the government of complex societies. And political theorists are right to focus increasingly on knowledge as a political value. However, the tendency to discuss these issues in terms of a stylized distinction between "democracy" and some form of "rule by experts" has hampered discussions of the value and dangers of expertise within practices of government, and the different possible ways in which expertise can be opened up to public judgment and influence. It is at least partly for this reason, I think, that democratic theorists have failed—as Dennis Thompson puts it—to show "how to incorporate the need for expertise and technical administration in a deliberative democracy" (Thompson 2008, 515). I have attempted to analyze and compare a number of credible ways of integrating expertise in democratic systems, evaluate their strengths and weaknesses, and suggest some of the ways in which they might support or undermine one another. In presenting these models of democratic expertise, I have tried to isolate and clarify some of the different ways in which expertise can be integrated into democratic systems, so that when we encounter complex mixed situations we can do so with a sharper sense of what is at stake, and where particular tensions may emerge. Instead of a regime of "straw guardians," we now have a more diverse repertoire of ways in which expertise can be integrated within central democratic practices. These models thus help to organize and clarify emerging debates about the democratic organization of expertise in ways that go beyond crude invocations of the threat—or the promise—of "rule by experts."

Notes

1. Though for important exceptions see Anderson 2006; Bohman 2006; Lane 2014; and Ober 2017.
2. For a critique of the reductive use of models in democratic theory see Warren 2017.
3. Consider, for example, the recent resignation of a criminal justice expert from the UK Home Office's drug Advisory Council on the Misuse of Drugs, on grounds that new appointments were being politically vetted; Busby 2019.
4. As illustrated by Collins' own struggles to "pass" in conversation as a gravitational wave physicist; Collins and Evans 2007, 91-112.
5. See Pellicano et al. 2019 for a discussion of experiential expertise in the production of knowledge about autism. I thank an anonymous reviewer for bringing this example to my attention.
6. Representative relationships of course exist beyond electoral politics, and Brown 2009 and Callon, Lascoumes, and Barthe 2009 have argued that experts themselves should be conceived as representatives. However, my use of the term 'representative expertise' here is limited to the citizen-expert relationship mediated through formal electoral representation.

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7. This separation of "control and criticism" from the "actual conduct of affairs" is central to Mill's discussion of expertise in his "Considerations on Representatives Government" (Mill 1977, 433). See Urbinati 2002 for a discussion of the "watching power" exercised by representatives, and Moore 2014 for a discussion of the relation between criticism and expert authority in Mill's work.
8. For empirical study of this problem, see Rosén and Stie 2018, who analyze the attempts of the European Parliament to "aim for independence" through developing its own knowledge base with which to push back against the Commission. Few political theorists have directly addressed this issue, but Pamuk's 2018 defense of public funding of science on grounds of empowering public scrutiny could perhaps be developed in this direction; see also Pamuk 2019.
9. For surveys and analysis of public engagement mechanisms in the field of science, technology and the environment in particular, see Rowe and Frewer 2000; and Brown 2006.
10. Participatory expertise has often been associated with the institutional mechanism of the minipublic, but this is not a necessary connection.
11. Though lay citizens can clearly also be full or "contributory" experts in the sense of possessing relevant local knowledge or experience as it bears on technical questions (Collins and Evans 2015, 122), a possibility I will discuss further in the next section.
12. I thank an anonymous reviewer for bringing this point to my attention.
13. These strategies can be related. One aspect of the scandal of "climate-gate," for instance, was that climate scientists appeared to have been deliberately evading freedom of information requests from people they thought were intending to misrepresent their research; see Moore 2017, 136-145.
14. There are obviously material costs associated with compliance with Freedom of Information laws or public audit requirements, but critics also claim that modes of monitoring and sanctions operating on the presumption of distrust can undermine the intrinsic motivations of public officials; Mansbridge 2009, 378-9; O'Neill 2003, 19
15. Though for such a critique, see John 2018.

References

Achen, Christopher H., and Larry M. Bartels. 2016. *Democracy for Realists: Why Elections Do Not Produce Responsive Government*. Princeton, NJ: Princeton University Press.

Anderson, Elizabeth. 2006. "The Epistemology of Democracy." *Episteme: A Journal of Social Epistemology* 3(1-2): 8-22.

——. 2011. "Democracy, Public Policy, and Lay Assessments of Scientific Testimony." *Episteme: A Journal of Social Epistemology* 8(2): 144-64.

Beatty, John. 2006. "Masking Disagreement among Experts." 3(1-2): 52-67.

Beatty, John, and Alfred Moore. 2010. "Should We Aim for Consensus?" *Episteme: A Journal of Social Epistemology* 7(3): 198-214.

Bell, Daniel A. 2015. *The China Model: Political Meritocracy and the Limits of Democracy*. Princeton, NJ: Princeton University Press.

Bickerton, Christopher, and Carlo Invernizzi Accetti. 2015. "Populism and Technocracy: Opposites or Complements?" *Critical Review of International Social and Political Philosophy* 20(2): 186-206.

Bohman, James. 1999. "Democracy as Inquiry, Inquiry as Democratic: Pragmatism, Social Science, and the Cognitive Division of Labor." *American Journal of Political Science* 43(2): 590-607

——. 2000. "Division of Labor in Democratic Discourse: Media, Experts, and Deliberative Democracy." In *Deliberation, Democracy, and the Media*, ed. Simone Chambers and Anne N. Costain, 47-64. Lanham, MD: Rowman and Littlefield.

——. 2006. "Deliberative Democracy and the Epistemic Benefits of Diversity." *Episteme: A Journal of Social Epistemology* 3(3): 175-91.

Braun, Kathrin, and Susanna Schultz. 2010. "'… a certain amount of engineering involved': Constructing the Public in Participatory Governance Arrangements." *Public Understanding of Science* 19(4): 403-19.

Brennan, Jason. 2016. *Against Democracy*. Princeton, NJ: Princeton University Press.

Brewer, Scott. 1998. "Scientific Expert Testimony and Intellectual Due Process." *Yale Law Journal* 107: 1535–679.

Brown, Mark B. 2006. "Survey Article: Citizen Panels and the Concept of Representation." *Journal of Political Philosophy* 14(2): 203-25.

——. 2009. *Science in Democracy: Expertise, Institutions and Representation*. Cambridge, MA: MIT Press.

Busby, Mattha. 2019. "Expert Quits Home Office Drug Panel over 'Political Vetting." *The Guardian*, October 6. Retrieved October 31, 2019. (https://www.theguardian.com/politics/2019/oct/06/expert-quits-home-office-drug-panel-over-political-vetting).

Callon, Michel, Pierre Lascoumes, and Yannick Barthe. 2009. *Acting in An Uncertain World: An Essay on Technical Democracy*. Cambridge, MA: MIT Press.

Caramani, Daniele. 2017. "Will vs. Reason: The Populist and Technocratic Forms of Political Representation and Their Critique to Party Government." *American Political Science Review* 111(1): 54-67.

Christiano, Thomas. 2012. "Rational Deliberation among Experts and Citizens." In *Deliberative Systems:*

https://doi.org/10.1017/S1537592720002480 Published online by Cambridge University Press

Deliberative Democracy at the Large Scale, ed, John Parkinson and Jane Mansbridge, 27-51. Cambridge: Cambridge University Press.
Collins, Harry, and Robert Evans. 2007. *Rethinking Expertise*. Chicago: University of Chicago Press.
——. 2015. "Expertise Revisited, Part I Interactional Expertise." *Studies in the History and Philosophy of Science* 54:113-23.
Dahl, Robert. 1985. *Controlling Nuclear Weapons: Democracy Versus Guardianship*. Syracuse, NY: SUNY Press.
Dewey, John. 1927. *The Public and Its Problems*. Chicago: The Swallow Press.
Douglas, Heather. 2000. "Inductive Risk and Values in Science." *Philosophy of Science* 67(4): 559–79.
Epstein, Steven. 1996. *Impure Science: AIDS, Activism and the Politics of Knowledge*. Berkeley: University of California Press.
Estlund, David. 2008. *Democratic Authority: A Philosophical Framework*. Princeton, NJ: Princeton University Press.
Fischer, Frank. 2000. *Citizens, Experts and the Environment: The Politics of Local Knowledge*. Durham, NC: Duke University Press.
Fricker, Miranda. 2007. *Epistemic Injustice: Power and the Ethics of Knowing*. Oxford: Oxford University Press.
Gastil, John, Richards, Robert C., and Katherine R. Knobloch. 2014. "Vicarious Deliberation: How the Oregon Citizens' Initiative Review Influenced Deliberation in Mass Elections." *International Journal of Communication* 8:62–89.
Goldman, Alvin I. 1999. *Knowledge in a Social World*. Oxford: Clarendon Press.
——. 2006. "Experts: Which Ones Should You Trust?" In *The Philosophy of Expertise*, ed. Evan Selinger and Robert P. Crease, 14-38. New York: Columbia University Press.
Guston, David H. 2005. "On Consensus and Voting in Science: From Asilomar to the National Toxicology Program." In *The New Political Sociology of Science*, edited by Scott Frickel and Kelly Moore, 378-404. Madison: University of Wisconsin Press, pp. 378–404.
Gutmann, Amy, and Dennis Thompson. 2004. *Why Deliberative Democracy?* Princeton, NJ: and Oxford: Princeton University Press.
Hibbing, John R., and Elizabeth Theiss-Morse. 2002. *Stealth Democracy: Americans' Beliefs about How Government Should Work*. Cambridge: Cambridge University Press.
Jasanoff, Sheila. 2003. "(No?) Accounting for Expertise." *Science and Public Policy* 30(3): 157-62.
John, Stephen. 2018. "Epistemic Trust and the Ethics of Science Communication: Against Transparency, Openness, Sincerity and Honesty." *Social Epistemology* 32(2): 75-87.
Johnson, James. 2014. "Models among the Political Theorists." *American Journal of Political Science* 58(3): 547–60.
Lafont, Cristina. 2015. "Deliberation, Participation, and Democratic Legitimacy: Should Deliberative Mini-publics Shape Public Policy?" *Journal of Political Philosophy* 23(1): 40-63.
Landemore, Hélène. 2013. *Democratic Reason: Politics, Collective Intelligence, and the Rule of the Many*. Princeton, NJ: Princeton University Press.
Lane, Melissa. 2014. "When the Experts are Uncertain: Scientific Knowledge and the Ethics of Democratic Judgment." *Episteme: A Journal of Social Epistemology* 11 (1): 97-118.
Lupia, Arthur, and Matthew D. McCubbins. 1998. *The Democratic Dilemma: Can Citizens Learn What They Need to Know?* Cambridge: Cambridge University Press.
MacKenzie, Michael, and Mark E. Warren. 2012. "Two Trust-based Uses of Minipublics in Democratic Systems." In *Deliberative Systems*, ed. John Parkinson and Jane Mansbridge, 95-124. Cambridge: Cambridge University Press.
Mansbridge, Jane. 2009. "A 'Selection Model' of Political Representation." *Journal of Political Philosophy* 17(4): 369-98.
Mill, John Stuart. 1977 [1861]. "Considerations on Representative Government." In *The Collected Works of John Stuart Mill, Volume XIX: Essays on Politics and Society Part 2*, ed. John M. Robson, 371-577. London: Routledge and Kegan Paul.
Moore, Alfred. 2014. "Deference in Numbers: Consensus, Dissent and Judgement in Mill's Account of Authority." *Political Studies* 62(S1): 187–201.
——. 2017. *Critical Elitism: Deliberation, Democracy, and the Politics of Expertise*. Cambridge: Cambridge University Press.
Ober, Josiah. 2017. *Demopolis: Democracy before Liberalism in Theory and Practice*. Cambridge: Cambridge University Press.
O'Neill, Onora. 2003. *A Question of Trust. The BBC Reith Lectures 2002*. Cambridge: Cambridge University Press.
Oreskes, Naomi, and Eric Conway. 2010. *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming*. London: Bloomsbury.
Pamuk, Zeynep. 2018. "Justifying Public Funding for Science." *British Journal of Political Science* 49(1): 1-16.
——. 2019. *Examining the Experts: Science in a Democratic Society*. Unpublished manuscript, presented at Manuscript Workshop, St John's College, Oxford, May 27.

https://doi.org/10.1017/S1537592720002480 Published online by Cambridge University Press

Pellicano, E., J. Den Houting, L. Du Plooy, and R. Lilley. 2019. "Knowing Autism: The Place of Experiential Expertise. *Behavioral and Brain Science* 42(E107). doi: 10.1017/S0140525X18002376
Pielke, Roger A. 2007. *The Honest Broker: Making Sense of Science in Policy and Politics*. Cambridge: Cambridge University Press.
Prat, Andrea. 2005. "The Wrong Kind of Transparency." *American Economic Review* 95(3): 862-77.
Rodrik, Dani. 2015. *Economics Rules: The Rights and Wrongs of the Dismal Science*. New York: W.W. Norton & Company.
Rosanvallon, Pierre. 2011. *Democratic Legitimacy: Impartiality, Reflexivity, Proximity*. Princeton. NJ: Princeton University Press.
Rosén, Guri, and Anne Elizabeth Stie. 2018. "What Characterises Parliamentary Responses to Expertization? A Study of the European Parliament." *Presented at the EUREX workshop on the role of expertise in policy-making*, University of Oslo, May 22-23.
Rowe, Gene, and Lynn J. Frewer. 2000. "Public Participation Methods: A Framework for Evaluation." *Science, Technology & Human Values* 25(1): 3-29.
Sabl, Andrew. 2015. "The Two Cultures of Democratic Theory: Responsiveness, Democratic Quality, and the Empirical-Normative Divide." *Perspectives on Politics* 13(2): 345-65.
Schelling, Thomas. 1978. *Micromotives and Macrobehavior*. New York: W.W. Norton.
Schudson, Michael. 2006. "The Trouble with Experts—and Why Democracies Need Them." *Theory and Society* 35(5/6): 491-506.
Schwartzberg, Melissa. 2019. "Sheep May Safely Graze: On the Instrumental Justification of Democracy." Unpublished manuscript. Retrieved April 9, 2019. (https://www.law.nyu.edu/sites/default/files/upload_documents/Colloquium_SchwartzbergSheep.pdf).
Thompson, Dennis F. 2008. "Deliberative Democratic Theory and Empirical Political Science." *Annual Review of Political Science* 11:497–520.
Turner, Stephen P. 2003. *Liberal Democracy 3.0: Civil Society in an Age of Experts*. Thousand Oaks, CA: SAGE.
Urbinati, Nadia. 2002. *Mill on Democracy: From the Athenian Polis to Representative Government*. Chicago: University of Chicago Press.
——. 2010. "Unpolitical Democracy." *Political Theory* 38 (1): 65–92.
Urbinati, Nadia, and Mark E. Warren. 2008. "The Concept of Representation in Contemporary Democratic Theory." *Annual Review of Political Science* 11:387–412.
Warren, Mark E. 1996. "Deliberative Democracy and Authority." *American Political Science Review* 90(1): 46–60.
Warren, Mark E. 2017. "A Problem-Based Approach to Democratic Theory." *American Political Science Review* 111(1): 39-53.
Weber, Max. 1994. "Suffrage and Democracy in Germany." In *Weber: Political Writings*, ed. Peter Lassman and Ronald Speirs, 80-129. Cambridge: Cambridge University Press.
Wilsdon, James, and Rebecca Willis. 2004. *See-through science: Why public engagement needs to move upstream*. London: Demos.
Wolff, Robert Paul. 1970. *In Defense of Anarchism*. New York: Harper and Row.
Wynne, Brian. 1989. "Sheepfarming after Chernobyl: A Case Study in Communicating Scientific Information." *Environment: Science and Policy for Sustainable Development* 31(2): 10–39.

https://doi.org/10.1017/S1537592720002480 Published online by Cambridge University Press