Democracy in the age of assessment: reflections on the roles of expertise and democracy in public-sector decision making

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In recent decades, governments have increasingly employed expert assessments and formal decision-making technologies. While these promise objectivity and transparency, they are just as likely to buffer decisions from public scrutiny. Countries such as Britain and the United States have experienced a sharp decline in electoral participation. Social scientists have responded with participatory techniques to resituate the non-expert citizen at the heart of decision making. This paper explores three specific problems with such methods: evaluation; representation; and agenda setting. It concludes that participatory techniques may have significant potential to inform and supplement representative democracy. However, under current arrangements, it is impossible for them to escape political-cultural constraints that reduce complex moral and aesthetic issues to scientific framings.

Over the past 40 years, governments on both sides of the Atlantic have made increased use of a variety of techniques to justify a wide range of public policy decisions. Such techniques include benefit–cost analysis, probabilistic risk analysis, fault-tree analysis, pollution dispersion models, urban planning models, traffic-flow models, and dose–response curves. International negotiations on transboundary environmental issues, such as climate change, rely heavily on models of emissions, atmospheric chemistry and dynamics, and climate impacts.

Growth in the reliance on such assessment techniques has been accompanied by an expansion of expertise to design, operate, and interpret such tools. Contradicting Franklin Delano Roosevelt’s epithet that the 20th century was the “Century of the Common Man”, Perkin (1989) has dubbed it the “Century of the Professional Expert”. Jasano (1990) has described the growing reliance of regulatory agencies on scientific and technical advisors and advisory bodies as the emergence of a formidable “Fifth Branch” of the US government.

In the USA, the requirement for ‘science-based policy’, is enshrined in legislation. In this case, science usually means, “give me a number” (Porter, 1995). In Britain, the government champions ‘evidence-based policy’. Again, ‘evidence’ is usually equated with a numerical threshold, such as a pollutant concentration in air, water, soil, or foodstuffs that can be invoked to trigger action or justify inaction.
Politicians demand technical information on which to base decisions. They also benefit from the ability to deflect responsibility onto technical failures when those decisions do not turn out for the best. Bad decisions, say about managing BSE (bovine spongiform encephalopathy, ‘mad cow disease’) or foot and mouth disease, can be blamed on inadequate science. We can characterize the present era as the ‘age of assessment’.

The age of assessment is not confined to the wealthy industrial countries. A common vehicle for their extension into the less-industrialised world has been the operation of international development aid programmes, particularly those of the World Bank. In many parts of the developing world, technical needs assessments, benefit–cost analyses, and environmental impact analyses, usually performed by consultants from the donor countries, are likely to play a bigger role in shaping the people’s lives than the operation of their local and national institutions of, hopefully, democratic, governance.

Issues of technology transfer and the promulgation of developmentally appropriate technologies often echo, on an international scale, the kinds of debate that we associate with controversial scientific and technical innovations and practices at home, and often pit experts against experts and against wider interests in society. In some cases, however, the alliances and allegiances that dominate the development discourse challenge conventional assumptions about the role of various stakeholders in domestic debates.

For example, international environmental negotiations often pit northern scientists, governments, and NGOs (non-governmental organisations), acting in the name of a global sustainable development agenda that is heavily informed by the earth sciences, against southern governments and citizen organisations, whose concept of sustainable development is focused on more local needs and local knowledge. Thus, in both the North and the South, science, rather than society shapes the agendas for science-in-society debates.

**Electoral decline in the age of assessment**

The growth in governmental reliance on expert techniques and formal decision-making technologies in all walks of public life has been accompanied, over the same period, by a disconcerting decline in electoral participation in many industrialised countries, especially Britain and the United States (Dalton and Wattenberg, 2000). This decline is puzzling to the dominant model of political participation in political science, the civic voluntarism model, which predicts that voter turnouts will increase as educational opportunities expand and incomes rise (Parry et al., 1992; Verba et al., 1995).

Is it possible that the concatenation of rising demand for evidence- and science-based policy and the displacement of moral judgement from the public sphere could have something to do with the decline of electoral participation? Whereas most citizens feel that they are competent to judge whose moral or aesthetic values appeal to them, they are less confident in their competence to second-guess technical expertise.

Where once we citizens voted for candidates based on our assessments of their values, such judgements have become marginal in importance and much harder to make. Technocracy is clearly an important aspect of the drift to the centre in both US and UK politics. On the one hand, the dominance of technique appears to reduce the scope for political differentiation, which comes to be seen as deviation from a technically defined reality. At the same time, if the decision is to be based on purely ‘technical’ criteria, what difference does it make who is in charge?

Such reasoning suggests that it is not worthwhile participating in electoral democracy. “It doesn’t matter who you vote for, the government always gets in!” Where once statesmen based decisions on some idea of the good, politicians and businessmen now look to technical experts to inform decisions.

Social scientists have responded to the triumph of technique and attendant electoral decline by advocating and designing increasingly sophisticated techniques of their own to re-establish a role for non-experts in scientific, environmental, and technological decision making (for instance, Renn et al., 1995; Irwin, 1995). These include focus groups, citizen juries, community advisory boards, consensus conferences, and participatory integrated assessment.

All these social science-based techniques attempt to equip groups of citizens to make informed decisions about issues involving complex science or technology. The best of them also seek to enable scientists and policy makers to understand better the origins of citizens’ concerns. Some particularly interesting innovations have confronted citizens with technical expertise embodied in computer models that enable individuals and focus groups to specify and compare alternative environment and development scenarios (for instance, Robinson, 1998; Darier et al., 1998). The assumptions underlying all these approaches to public participation are that it leads to better decisions through transparency and that expertise can, and should, be harnessed through the exercise of popular will.
Motivations for public participation

The motivations of various actors for encouraging public participation in assessment processes are varied. However, each seems to embody a particular idea of the citizen.

Governments and natural scientists with a stake in the technology or project being assessed seem to view public participation as the source of a social licence to operate. For these actors, public participation is essentially an extension of science communication as informed by the so-called deficit model of science communication. This suggests that public concern about, or opposition to, scientific, environmental, or technological developments is primarily driven by lack of information or understanding about science. Although this view is now explicitly rejected in the rhetoric of most government agencies and firms, it remains firmly entrenched in their practice.

Critics of the deficit model have rightly pointed to the shortcomings of the standardised view of the citizen that is implicit in the deficit approach (for instance, Wynne, 2002; Leach and Scoones, 2002). This is the citizen of liberal thought who:

- is the individual beneficiary of rights granted by the state;
- seeks to manage a portfolio of rank-ordered preferences;
- focuses on safety as the core value of public life;
- must rely on expert help to interpret uncertainty.

Public participation within this framework most often consists of mechanisms for offering individuals the opportunity to select from among a limited array of options or services, but not playing a significant role in setting policy agendas (Gaventa and Cornwall, 2000).

However, it seems that the same reflexive critics are often rather unreflexive about the standardised model of the citizen that is embodied in the alternative models of citizen–science relationships that they embrace in explaining their own engagement in public participation exercises. Social scientists and NGOs tend to explain their motives for supporting public participation in terms of extending democratic control. The standardised citizen of the public participation paradigm is:

- socially embedded in a community;
- locally knowledgeable and intuitively reflexive about society and nature;
- focuses on common good as a core value of public life;
- relies on inclusionary deliberation to reveal truth.

Deliberative democracy is the key to this alternative vision of the citizen. However, its key assumptions about ideal free speech (Habermas, 1984) may mask the realities of indifference, politics, and power that characterise real communities.

Each model seems to embody a particular idea of the citizen: the deficit model of science communication; the citizen of liberal thought; the standardised model of the citizen; the citizen as consumer; and citizenship as emergent solidarity.

Industry also has its standardised model of the citizen as consumer, which lies at the heart of its approach to public participation, principally as an information collection exercise to inform management and marketing decisions. Ironically the view of citizen as consumer may seem plausibly rational to citizens alienated from the electoral process as described above. Indeed, it seems to many that our consumption decisions are likely to have a greater impact in shaping our lives than our ballots. Thus, popular choices about governance seem to be increasingly made in the marketplace rather than in the legislature. In Sagoff’s (1990) terms, the consumer is displacing the citizen in political importance.

More compelling than any of these single standardisations of the citizen is the notion that people have multiple, overlapping identities that they are able to mobilise, and reference groups to which they refer for legitimation and support. Citizenship is thus redefined, in effect, as engagement through emergent social solidarities, which, as Ellison (1997) emphasises, are likely to be “increasingly messy and unstable”. These forms of engagement, involving new processes of social and political interaction may be directed towards more diverse sets of actors and institutions than notions of citizenship that are derived entirely from the state or even the singular community (Leach and Scoones, 2002).

A perspective on citizenship as emergent solidarity suggests a view of democracy that emphasises the capacity of citizens to actively participate and engage in the discourses that affect their lives (Pateman, 1970). Locating the concept of citizen and consumer in emergent solidarities differentiates democratic governance in which citizens themselves determine the institutional forms and shape the terms of the debate from mere participatory management, which permits rational debate only within received expert framings. The theory of democratic governance also stresses that citizenship is a dynamic learning process that creates and enhances citizenship capabilities (Sirianni and Freeland 2000:23).

However, little of this kind of thinking about citizenship seems to inform official or even social science thinking around issues of science and technology. Much of the debate about participation
and deliberation in technology assessment and science policy has relied upon rather traditional notions of stable, not to say static, conceptions of the public, community, state, knowledge, and interests that do not challenge dominant managerial perspectives.

Whatever the motivations for supporting participatory exercises in science and technological decision making, the most common explicit justifications offered in support of the widespread employment of formal assessment techniques are that they promote efficiency and transparency.

**Efficiency rationale**

As an explicit value to guide decision making, the concept of efficiency was almost unknown in commerce or government prior to the 18th century. It arose alongside the practice of commercial accounting for the stocks and flows of goods. The extension of this practice to government was the emergence of statistics — literally, measurement of the state. It was but a short step from the idea that one could calculate

> “what would contribute to the greatest happiness of the greatest number into the imperative to pursue that goal. The solution that provides the greatest happiness of the greatest number must also be an efficient solution, since any departure from efficiency, also by definition, reduces the amount of good available for distribution.”

(Rayner and Malone, 1998, page 60)

Thus was born the ethical doctrine of utilitarianism. “A bias towards efficiency is inherent in the methods of policy analysis and utilitarianism has been the ideological position most forthrightly incorporating this standard as a central value” (Heineman et al., 1990, page 38).

The utility principle domesticated moral diversity for decision making authorities by offering the capability to measure and monitor stocks and flows of societal good, the proxy for good being wealth in some form. The same process systematically attenuates decision maker awareness of alternative ethical considerations. The imperative to provide for societal good at the highest level of aggregation provides no guidance for securing the happiness of minorities and individuals, even those individuals in the happy majority.

> “The guiding criterion for policy is the greatest good for society, quantitatively defined. But contemporary utilitarians, primarily economists and theorists of public choice, like Bentham, still have no principle for distributing these social goods according to manifest principles of equity.”

(Heineman et al., 1990, page 40)

Increasing insight into the diversity of motives, values, and preferences of individuals actually tends to frustrate utilitarian social accountancy, which depends on blending out such distinctions in the process of aggregation.

> “Most utilitarians assume, like the politics of interest that the sole legitimate basis of social good is what individuals happen to value. And they view the process of social choice as an aggregative one, in which individual preferences are added to one another in arriving at decisions on the substance of social welfare.”

(Heineman et al., 1990, page 71)

It is hardly surprising therefore that insights into individual and social diversity are not merely considered irrelevant to, but actually have to be excluded from, utilitarian decision making to preserve the rationality and legitimacy of the utility principle. Yet scientific, environmental and technological decisions are not oriented by a unique consistent value system.

**Transparency rationale**

Transparency is the other plank of justification for the ubiquitous adoption of formal assessment techniques. Interestingly, whereas critics invoking other values, such as individual equality or natural rights, often contest the technocratic utilitarian value of efficiency, the principle of transparency seems to have been almost universally embraced.

A classic defence of benefit–cost analysis is that it is surely better to make the various dimensions in decision making explicit so that they can be reviewed for completeness (are all of the appropriate issues taken into consideration?) and are subject to scrutiny, than it is to take decisions based on implicit, partial, or intuitive understandings. Surely nobody would argue against the idea that consequential decisions should be made on a thorough examination of all of the relevant evidence that is available.

The difficulties arise when there is disagreement about what is relevant and what counts as evidence. These difficulties are compounded by the reduction of incommensurable values to a single metric that permits the bottom-line benefit–cost ratio to be determined (Selt, 1975). The problem is further exacerbated when the original values of some of the non-marketable items in the calculation had to be inferred by surrogate techniques, such as willingness to pay or contingent valuation.

Benefit–cost analysis represents the aggregation of incommensurables in pounds or dollars. Another form of such aggregation is risk assessment, in which a diverse range of technical and social considerations are reduced to the common metric of ‘risk’, usually expressed as the probability of mortality. Like efficiency, risk is a modern invention of western thought that serves the Benthamite calculation of aggregate social welfare. In earlier times and
in non-western traditions today, danger is specific, embedded in particular objects or activities, and quite different from the abstract universalisable concept of risk.

The discourse of governance is reduced to a discourse of science. The discourse of science is reduced to risk. Thus, the whole business of governance is reduced to a discourse of risk management. Nowhere is this alarming pattern more evident than in the November 2002 report of the UK Prime Minister’s Strategy Unit entitled “Risk: improving government’s capability to handle risk and uncertainty”, which alarmingly equates the business of governance with risk management.

Social scientists have argued that, as an ordinary language category, the concept of risk continues to embody people’s expectations for TLC factors of trust, liability, and consent, which may not be amenable to mathematical quantification and are likely to require the exercise of judgement (Rayner, 1984; 1987; Rayner and Cantor, 1987). Technical analysis reduces risk to purely quantitative factors determinable by calculation, but societal disagreements about risk cannot be resolved by recourse to expert assessments of abstract potential damage. They must be addressed through political processes such as ethical disagreements. The key to understanding public controversies about risk (particularly about low-probability, high-consequence events) is not “How safe is fair enough?” but “How fair is safe enough?” which is a matter of judgement rather than calculation.

Both benefit–cost analyses and risk assessments are often highly technical in their execution. Thus they tend to be incomprehensible to people lacking the appropriate technical background. They may not be transparent to other technical experts, even in the same field. Critics claim that they remain firmly opaque to ordinary citizens.

In addition to the technical transparency of assessment techniques themselves, there is the issue of their use in decision making. Even if we assume the adequacy of economic and technical assessments, we should still ask the empirical question whether they are really the basis for policy decisions? Ironically, extensive studies of knowledge utilisation (mostly conducted in the USA) suggest that technical analysis mostly provides cover for the implicit exercise of judgement (Rayner and Malone 1998).

Whereas policy makers demand analysis with a strong ‘bottom line’, that bottom line seldom, if ever, finds its way into legislation or regulation. Policy makers mostly treat technical analyses as background information. Where numbers are explicitly used, the existence of competing assessments allows decision makers to select the analysis that most closely conforms to their pre-existing preference. So, while the triumph of technique promises objectivity and transparency, it seems just as likely to be a means to buffer decisions from public scrutiny.

Turning from considering issues of motivation and justification for participatory exercises, we now focus on three specific problems with the exercises themselves, specifically evaluation, representation, and agenda setting.

Evaluation

Evaluation of the performance of public participation is problematic. It is almost exclusively self-evaluation performed by the organisers of the consultation or engagement activity or sympathetic evaluation by social scientists known to be committed to the principle and techniques being employed. Most evaluation is of single projects. There is very little systematic or comparative evaluation across multiple sites and different techniques.

The focus of evaluation is almost exclusively process based, for example, looking at how closely the activity corresponded to Habermasian “ideal free speech” or how the participants behaved or said that they felt about each other. There have been almost no credible outcome-based evaluations that have established that a public participation technique has led to a technically or socially sound outcome that otherwise would not have been reached.

Clients have expressed satisfaction with these activities. For example the US Department of Energy (DOE) claims that the Site Specific Advisory Boards established to assist in environmental remediation at its former nuclear weapons sites have saved millions of dollars in cleanup costs. However, the reality is that DOE has never performed a systematic outcome-based evaluation. It has no way of knowing if experts alone would have saved as much or even more money if left to themselves. Of course, this illustrates the general problem facing outcome evaluation that it is impossible to establish a causal link between the process and its outcomes and to establish what the counterfactual situation would have been in the absence of the advisory board.

Another problematic aspect of participatory approaches is their evaluation from the standpoint of the participants. O’Neill (2001) suggests that members of citizen juries go on to heightened levels of civic engagement. More common are reports of anger on the part of citizens who invested time and energy into deliberative processes that subsequently

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had little or no effect on the policies or decisions that they were invited to consider. Part of the problem here is the constitutional difficulty that legislatures may have in binding themselves to decisions made by less representative bodies.

The fact is that the efficacy of public participation remains largely a matter of faith and of what model of society and citizenship one is committed to.

**Representation**

One of the most persistent criticisms of participatory techniques relates to the problem of representativeness, both in terms of validity of the sample of the public that is drawn upon and in the sense of its legitimacy to shape decisions for those who were not included directly in the process. It is not always easy to distinguish claims about these two meanings of representativeness.

For example, Carson and Martin (2002) claim that sample bias can be overcome by random selection of participants. However, close examination of their methodology reveals that their citizen juries were far from fully random. The pool from which they were drawn was self-selected from an initial random mailing and the actual juries were then selected to conform to a predetermined sociodemographic profile of the population in question.

While this method may be considered to have produced panels that were representative in a sampling sense, the authors also claim legitimacy for them in that they performed well by process criteria. However, these juries were also heavily mediated by the researchers, which suggests that their conformance to deliberative norms of ideal free speech may have little to do with their representativeness.

Other studies that have compared the influence of recruitment on deliberative performance suggest very different relationships. In 1998, I participated in an evaluation of the Site Specific Advisory Boards (SSABs) at the US Department of Energy’s former nuclear weapons production sites. We distinguished three modes of recruitment:

- Opportunistic;
- random representation of predetermined sociodemographic categories (closest to the approach of Carson and Martin);
- nomination of delegates by a cross-section of civic organisations.

Professional mediation was seldom employed by the SSABs. However, measured by process criteria (how well the boards functioned as deliberative bodies) the boards nominated by civic organisations performed best. Opportunistically recruited boards performed worst. The sociodemographically representative boards fell in the middle of the range.

The ability of SSAB members to hold individual members accountable through back channels among the network of a community’s civic organisations appeared to be a significant factor in ensuring constructive conduct. However, such accountability was only operational among the participating organisations. Issues of legitimacy arise from the fact that other organisations may not have been represented.

The other side of the question of “who is included?” in participatory exercises is their potential for exclusion. Agarwal (2001) working with forestry initiatives in India and Nepal, vividly describes how seemingly participatory institutions can systematically exclude significant sections of the affected population, especially women.

Ultimately, the issue of representativeness folds back into the conception of citizenship that one embraces. The perspective that views citizenship in terms of emergent solidarity clearly requires that any forum that is intended to serve as a surrogate microcosm of the wider society must be capable of reproducing or otherwise capturing the emergent properties of that society, which suggests that neither randomness nor categorical representation will do.

**Agenda framing**

Almost inevitably, where new techniques of public participation are implemented in a political culture of science- and evidence-based expertise, they are forced to permit science to set the stage. For example, in Britain, citizens are about to be consulted about ‘genetically modified crops’ rather than about ‘food and the countryside’. Technical perspectives often frame the debate as hard-edged, binding constraints on decisions, while social and cultural perspectives enter the stage as malleable perceptions and preferences to be corrected by promoting public understanding of science.

Despite the hegemony of technique in policy making, the really thorny issues facing public- and private-sector decision makers more often are aesthetic, ethical and political rather than scientific. Complex issues of governance are reduced to issues of scientific uncertainty, which, at least in principle, seem as though they ought to be tractable through reasoned inquiry. Thus the reduction is not merely one of the political to the scientific, but a further reduction of science to the paradigm of risk and its assessment and management.

For example, take the current controversy in the UK over commercialisation of genetically modified crops. The intensity of this debate marks a staggering contrast with the uncontroversial acceptance of such crops in the USA. There is no difference between US and European technological competence when it comes to genetic engineering. The differences are cultural (Levidow, 2001).

American farms are huge food factories that have very little to do with American ideas of nature, which Americans tend to associate with pristine wilderness, untouched by human intervention. In
contrast, European ideas of nature are rooted in what the British call the countryside or continental Europeans call the ‘culture landscape’. Genetic crop modification in Europe is not merely an industrial innovation, but an alteration of the lived-in environment, thus a potential threat to both nature and culture.

However, it seems unlikely that the British government’s decision on commercialisation of genetically modified crops will be shaped by these kinds of argument. It seems much more likely that, once the process of consultation has been concluded, the government will make, and justify, its decision by reference to probabilistic risk assessments of physical harm.

The framing of ethical and aesthetic issues as scientific ones is characteristic of this and other public debates, such as those over BSE and MMR (vaccine for measles, mumps and rubella). Ironically, while social scientists seek to facilitate public expressions of concern by participants in such debates, their own voices are often marginalised by the official and media definition of the issues as ‘scientific’.

The advice sought by government and the voices sought by the media are most usually those of natural or physical scientists, preferably venerable Fellows of the Royal Society or the National Academy of Sciences. Social scientists are more rarely consulted and quoted on issues of substance, although their advice may be sought about issues of process. This situation reflects the more general instrumental or ‘handmaiden’ conception that both scientists and politicians have of social scientists, which is as the public communicators of technical knowledge and expertise.

**Conclusion**

Over the past two decades, my initial enthusiasm for innovative techniques of public engagement has been tempered by a more general concern for the increasing reliance of public and private decision makers on expert techniques of all kinds. Are consultative and participatory decision processes devised by social scientists a true path to increased democracy or just another layer of technocracy? Is it possible that rather than digging ourselves out of the technocratic hole we are really just digging ourselves in deeper? Are we seeking to compensate for the triumph of technique by devising new techniques, this time social science techniques of consultation? As social scientists, we need to ask whether such initiatives move us closer to, or further still from, the participation of an informed citizenry in key decision making.

It seems that the discourse of participation is essentially a managerial discourse, perhaps, even more narrowly, a crisis management discourse masquerading as a theory of democracy. It leaves the concept of ‘risk’ intact and presents citizens with a largely predetermined range of remedial or damage-mitigating options from which to select. It is consensus seeking with respect to both knowledge and values and, as such, it is depoliticising. Its adequacy is evaluated overwhelmingly in terms of process rather than of outcome.

To create a governance discourse, we might begin by contrasting the concepts and practices of participation with a term that seems to have fallen out of favour in the last 30 years, that is ‘mobilisation’. A discourse of mobilisation around science in society suggests a very different approach. It begins with social issues of identity and emergent solidarity rather than technocratic ideas of risk. It seeks to destabilise taken-for-granted knowledge. Since it is explicitly values-based, it is inevitably conflictual. Rather than addressing science, technology, and environment from the standpoint of remediation it seeks to address them from a standpoint of anticipation and authentic social choice. Its adequacy is evaluated in terms of outcomes as much as of process.

Within a governance discourse, I am still (just about) inclined to believe that new processes of public discourse, informed by social science, have significant potential to inform and supplement (but not substitute for) decision making in representative democracies. However, under current arrangements, it is very difficult, perhaps impossible, for such techniques to break free of the political-cultural constraints that reduce complex moral and aesthetic issues to scientific framings.

The solution to the problem of democratic participation is not so much dependent on the democratisation of expertise, but on what Giddens (1999) has called “the democratisation of democracy”. I remain sceptical that the first can be achieved in the absence of the second. In the meantime, we can expect to see electoral participation continue to fall and consumption to carry on rising to unprecedented levels.

**References**


