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Editors

# Experts and Consensus in Social Science

 Springer

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# Chapter 12

## Expert Advisers: Why Economic Forecasters Can Be Useful Even When They Are Wrong

Robert Evans

**Abstract** The dilemma posed by expert consensus can be summarized as follows. On the one hand, it seems perfectly reasonable to give special weight to an agreement reached by those who have studied a topic in great detail. On the other hand, does the very same specialization that confers expert status also mean that the group is unable to consider all alternatives equally? In other words, do the shared analytic models and other practices that expert groups rely on provide an enhanced understanding or mean that they focus only on those aspects of the problem that fit neatly into their pre-conceived way of thinking?

The problem for policy-makers and those who would rely on experts is thus to identify which experts they need to consult. If the boundary is drawn too tightly, reaching consensus may be easy but its practical applicability may be highly restricted. If the boundary is too porous, then consensus may never be reached and the epistemic quality of deliberations may suffer as a result of irrelevant or unfounded concerns. If we accept that non-coercive decision-making is appropriate, then the problems of expert consensus are twofold: first, the members of the expert group must be identified and, second, the relationship between these experts and the wider society must be clarified.

### 12.1 Introduction

This volume is about expertise and consensus. In this chapter I focus on the nature of expertise and how it can be used to inform decision-making in the public domain. The aim is twofold. First, I consider a particular case of specialist expertise – economic forecasting – and use this to examine the relationship between experts as policy-advisers and policy-makers as users of expert advice. The emphasis is on the role of judgment in giving expert advice and the importance of knowing whose judgment to trust. Secondly, I consider what this need for judgment means for

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policy-making institutions. My conclusion is that, despite the popularity of arguments for democratizing expertise, there remains an important need to keep the expert and political aspects of policy-making as distinct and separate forms-of-life.

The chapter begins by examining economic forecasts made around the start of the financial crash of August 2007. Here we have a group of highly specialized experts who largely agreed about what the economic future would hold but who turned out to be quite wrong. Despite the terrible social consequences of the collapse in bank lending that followed this forecasting failure, the same kinds of experts continue to play the same important role in UK monetary policy. What is more, or so I will argue, this is a reasonable way of making monetary policy decisions, so long as we understand what such technical expertise can and cannot provide.

The case of the economic forecasters can be contrasted with two other cases of expert consensus – the use of AZT to prevent mother-to-child-transmission of HIV and the use of the MMR vaccine – where the outcomes were rather different. In the case of AZT we have a strong expert consensus being over-ruled by a policy-maker, the South African President Thabo Mbeki. In the case of MMR, we have another strong expert consensus being rejected by lay people. Comparing the three cases, shows how the successful use of expert advice requires careful judgments about who the relevant experts are. It also shows that specialist technical expertise needs to be nurtured and valued even if, on occasion, it appears to be worse than useless.

## 12.2 Limits of Expertise: Forecasting the Financial Crisis

August 2007 is often seen as the start of the financial crisis that has dominated the recent past.<sup>1</sup> It is also one of the months in which the UK central bank, the Bank of England, publishes its Quarterly Inflation Report.<sup>2</sup> These reports set out the economic analysis that informs the interest rate decisions of the Bank's Monetary Policy Committee, which meets each month to set the key "base" interest rate through which the Bank aims to fulfill its responsibilities for controlling inflation and supporting government policies for growth and employment. The Inflation Reports draw on a wide range of economic data and indicators and include, amongst other things, 1 and 2 year forecasts for GDP growth and prices. Because of their role in determining UK monetary policy these forecasts have a profound impact on the daily lives of the UK population. These include relatively direct effects, such as changes to

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<sup>1</sup> For example, 2 August 2007 is the date on which BNP Paribas became the first major bank to react to the crisis in the US sub-prime lending market by closing several hedge funds that traded in this debt.

<sup>2</sup> Bank of England Quarterly Inflation Reports are available from: <http://www.bankofengland.co.uk/publications/pages/inflationreport/default.aspx>

mortgage and savings rates, as well as more indirect effects from aggregate outcomes like inflation, GDP growth and employment.

### ***12.2.1 Economic Forecasting at the Bank of England***

Before discussing the Bank's forecasts I must emphasize that I have not picked the Bank of England's forecasts because they are especially bad. In fact, the reason is the exact opposite. I have picked the Bank of England forecasts because their forecasting method, their account of how judgment enters into this forecasting procedure, and the way these judgments are reflected in their published output are all exemplary. There is also no suggestion that the forecasters working for the Bank are less accomplished than those working elsewhere: the research produced by the Bank's economists is published as official working papers and in peer-reviewed academic journals.<sup>3</sup> Focusing on the Bank of England forecasts means that questions about competence, bias and other avoidable failures of forecast performance can be excluded.

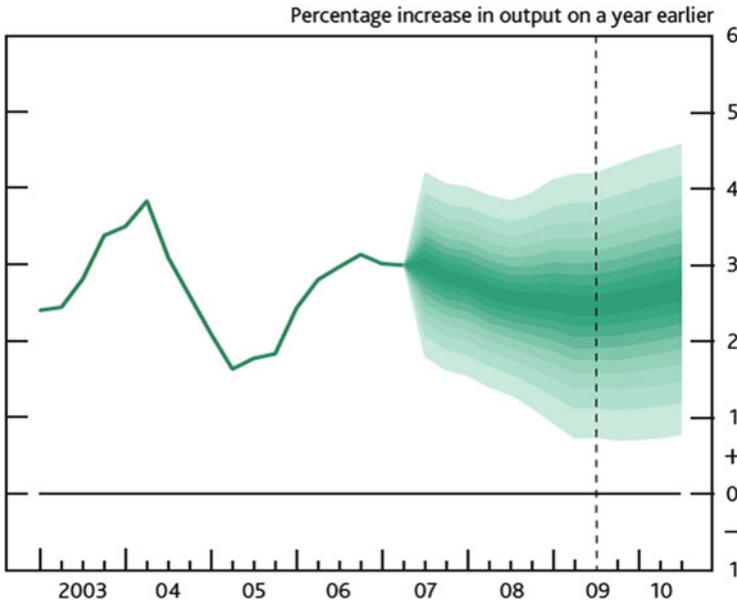
Turning now to the forecasts themselves, we see that, unlike most other forecasting organizations, the Bank of England does not present its forecasts for GDP and inflation as single numbers. Instead, the Bank publishes these forecasts as "fan charts" that indicate the range of possible futures that might develop (see Fig. 12.1). Within the fan, the darkest, central band represents the central 10 % of the forecast distribution, with the other shaded bands each representing a further 5 %. In all, the shaded area includes 90 % of the forecast distribution, meaning that the white space outside the shaded fan represents the remaining possible outcomes.<sup>4</sup>

For August 2007, the GDP forecast fan chart showed that the Bank's central estimate was that GDP growth would be just over 2.5 % in 2007 and slightly lower in 2008. Thanks to the fan chart, we can also see that the probability of these outcomes is only about 10 %. The "90 %" range of outcomes is given by the upper and lower limits of the fan. For GDP growth in 2007, this range runs from about 1.5 % up to about 4 %. For 2008, the range of possibly outcomes is slightly wider, going from about 0.75 % to just over 4 %.

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<sup>3</sup>For more information on the Bank of England's economic research see: <http://www.bankofengland.co.uk/research/Pages/default.aspx>

<sup>4</sup>More details on the Bank of England's fan chart are available at: <http://www.bankofengland.co.uk/publications/pages/inflationreport/irprobab.aspx>

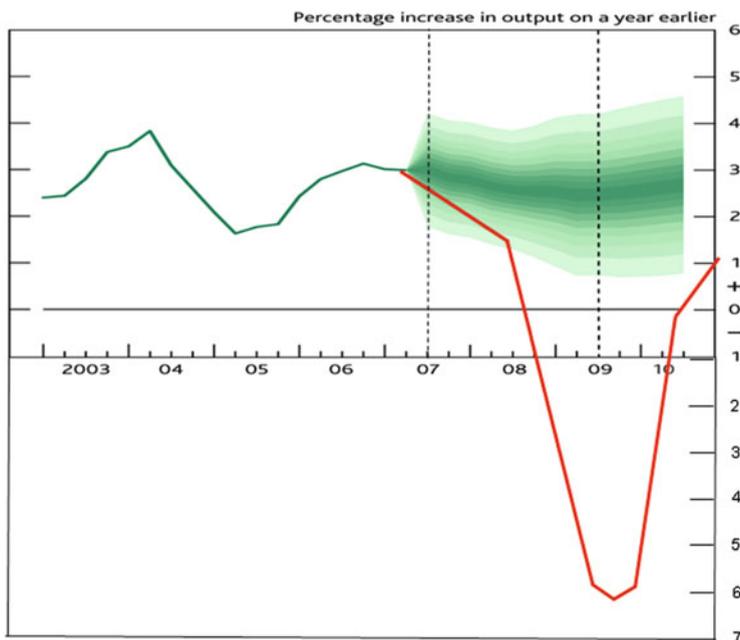


**Fig. 12.1** Bank of England GDP forecast, August 2007 (Source: Bank of England Quarterly Inflation Report, August 2007. available on-line at: <http://www.bankofengland.co.uk/publications/Pages/inflationreport/default.aspx>)

### ***12.2.2 Failure to Forecast the Financial Crash***

As is now well known, what actually happened in 2007 and 2008 was nothing like this at all. Instead, 2007 saw the start of a major economic contraction that left the UK economy in a deep recession. As shown in Fig. 12.2, GDP growth fell throughout 2007 and this decline continued throughout 2008. Most seriously of all, the character of the economic situation was completely different to that implied in the August 2007 fan diagram. Rather than 18 months of more or less trend growth what actually happened was the start of an almost catastrophic recession. For policy-makers, this meant that plans based on any of the futures predicted by the fan diagram were of little or no use as the situation had changed and, from their perspective, had changed with very little warning.

Given the difference between what was forecast and what happened, the obvious question to ask is whether the Bank of England got it wrong and other forecasters got it right. There is no evidence that this is the case, however. The Bank of England's forecasts were very similar to those produced by other forecasting organizations at the same time. The HM Treasury monthly round up of economic forecasts published in August 2007 shows that the average of all GDP growth



**Fig. 12.2** UK GDP growth forecast and outcome (Source: as for Fig. 12.1 but adapted by author to show outcome data)

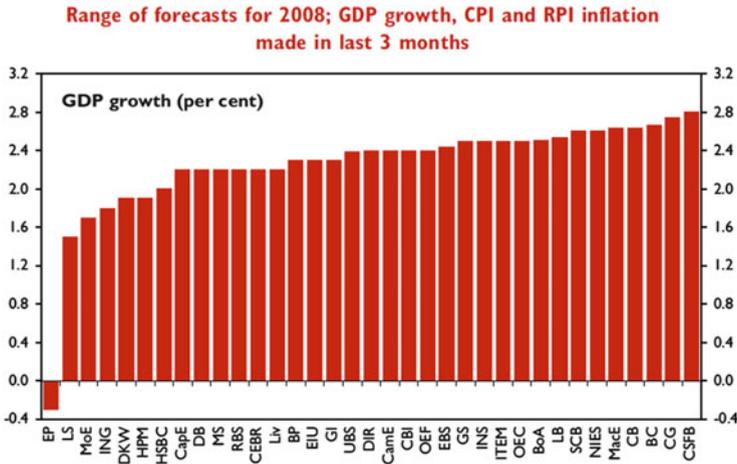
forecasts for 2007 was 2.8 %, with a range of 2.4–3.1 %.<sup>5</sup> In terms of the fan chart, virtually all the other forecasts lie within the central 50 % band and none of the mainstream forecasting organizations was predicting the downturn that happened. Asking a different forecaster would not, therefore, have given a significantly different answer.

Turning to the forecasts for 2008 leads we see a similar picture. Once again the Bank's forecasts are well in line with those produced by almost every other forecasting organization in the Treasury's list. The mean forecast for 2008 is for GDP growth of 2.2 %, compared with the Bank's forecast of just under 2.5 %, and every forecast except one falls between 1.5 and 2.8 % (see Fig. 12.3).

With the benefit of hindsight, the one outlying forecast, which comes from the economic consultancy firm Economic Perspectives, obviously takes on a particular interest.<sup>6</sup> We know now that the Economic Perspectives team, led by Peter Warburton, were correct in predicting some kind of recession. The key question, however, is whether or not this forecast implies that policy-makers should have acted differently at the time. It is significant, therefore, that in his contribution to the

<sup>5</sup> Source: [http://webarchive.nationalarchives.gov.uk/20100407010852/http://www.hm-treasury.gov.uk/d/forecast\\_150807.pdf](http://webarchive.nationalarchives.gov.uk/20100407010852/http://www.hm-treasury.gov.uk/d/forecast_150807.pdf)

<sup>6</sup> See: <http://www.economicperspectives.co.uk/>



**Fig. 12.3** HM Treasury summary of forecasts for 2008 (Source: [http://webarchive.nationalarchives.gov.uk/20100407010852/http://www.hm-treasury.gov.uk/d/forecast\\_150807.pdf](http://webarchive.nationalarchives.gov.uk/20100407010852/http://www.hm-treasury.gov.uk/d/forecast_150807.pdf))

Shadow Monetary Policy Committee – a group of independent economists that monitors the work of the official Bank of England Monetary Policy Committee – Warburton voted for monetary policy to remain unchanged in August 2007.<sup>7</sup> This was also the decision taken by the Bank of England’s Monetary Policy Committee.

### 12.3 Expert Consensus: Robust Knowledge or Partial Perspective?

The discussion so far has focused on economic forecasts. We have seen that the forecasts produced by different forecasting teams were often fairly similar. We have also seen that they were also mostly wrong, with what actually happened lying well outside what was expected by the vast majority of forecasters. Whilst it is tempting to see this as a problem for economics I want to argue that the issues raised are best seen as more general problems of expert advice.

<sup>7</sup> Minutes of Shadow Monetary Policy Committee, August 2007. Available online at: <http://www.iea.org.uk/smpc>

### ***12.3.1 Specialization and Expert Consensus***

Economic forecasters, like all other experts, are experts in *something*. They have become experts by following some program of training and they bring this specialist knowledge to problems in ways that become increasingly taken-for-granted and, to the expert, unremarkable (Ericsson et al. 1993; Dreyfus and Dreyfus 1980; Collins and Evans 2007). In the case of economic forecasting, economists typically work within a shared economic paradigm that includes standard economic theories and their problems, familiarity with econometric techniques and their use to model economic behavior, and a shared professional culture of conferences and meetings. There are differences between economists over the correct way to interpret economic data but the basic approach is largely shared and most disagreements result from differences in the weight given to different variables rather disputes about which factors need to be considered in the first place.

Although the economic crisis made the consequences of this conformity particularly apparent for economic forecasters, the opportunity cost of specialization is not unique to economists. The same risk is faced by all experts who, by definition, bring with them deep, specialist knowledge that has been built up over years of experience.<sup>8</sup> The price of this sustained immersion in the traditions and practices of their own domain of practice is that they have learned to see the world in a particular way (Kuhn 1996; Collins 1992; Winch 1958/1988). This, in turn, means that experts with a similar professional background are pre-disposed to agree about how to diagnose a problem because they all start from a similar position and make similar judgements about what is and is not salient. As a result, it is not surprising if they also end up reaching similar conclusions about the kinds of actions that should be taken next.

Recognizing this problem lies behind many of the calls for more inter- or multi-disciplinary teams as well philosophical arguments around ideas such as active or reasonable pluralism (see Chap. 14 by Lefevre and Schliesser, this volume). To the extent that different disciplinary traditions emphasize different variables and different causal pathways, then it is possible that using different experts will provide a more wide-ranging analysis of a policy problem. By tasking these groups with reaching some form of consensus, the idea is that the advice policy-makers receive will be epistemically more robust as it will have been subject to test from a wider variety of perspectives.

### ***12.3.2 Accountability and the Democratization of Expertise***

Within the STS literature, however, the argument typically goes one step further and links the idea of more heterogeneous expert groups to the political legitimacy of

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<sup>8</sup>Taleb (2007) makes a similar argument though does so from a different starting point.

the advice and not just its epistemic quality. The idea is that by including a wider range of experts, and hence including a wider range of perspectives, the advice will more accurately reflect the interests of the wider society and not just the elite groups of establishment experts. In this analysis, arguing for more participatory decision-making is about giving a voice to excluded groups.<sup>9</sup> Public debate about the legitimacy and applicability of expert authority, which may include both technical concerns and more general issues, is therefore contrasted with the universalizing tendencies of technocracy in which uncertainties are suppressed and local knowledge ignored. As Sheila Jasanoff (2003) has written:

the presumption in democratic societies is that all decisions should be as far as possible public . . . Without such critical supervision, experts have often found themselves offering irrelevant advice on wrong or misguided questions . . . and powerful institutions can perpetuate unjust and unfounded ways of looking at the world unless they are continually put before the gaze of lay persons who will declare when the emperor has no clothes. (Jasanoff 2003, pp. 397–8).

On this account experts – but particularly scientists – are like the Emperor’s courtiers: they have a vested interest in maintaining the status quo and their privileged position within it. Such experts do not to ask the “difficult” questions that an outsider would pose as their specialization, coupled with a lack of reflexivity, means that they take the key assumptions and framings for granted (Wynne 1992; Harding 2006; Longino 1990). In contrast, lay people are like the child in the story. Because they are outside the institutions of power, they do not suffer from this pressure to conform and do not have the blinkers of specialization to limit their perception (see e.g. Wynne 1992; Irwin 1995; Epstein 1996). Indeed, some writers go further and argue that lay people can be more reflexive and/or sensitive to a wider range of factors than the more officially recognized experts (Peterson 1984). Seen this way, expert consensus becomes a potentially risky thing that needs to be managed by close and critical scrutiny of the ways in which problems are defined and expert status awarded. As this scrutiny is invariably couched in democratic terms, the problem of expert scrutiny becomes linked to, and putatively solved by, increased opportunities for citizen participation.<sup>10</sup>

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<sup>9</sup> See e.g. Evans and Plows (2007); CST (2005); Epstein (1996); Fischer (2011); Funtowicz and Ravetz (1993); Grin et al. (1997); House of Lords (2000); Irwin (1995); Office of Science and Technology (2002); POST (2001); Rip et al. (1995); Wynne (1992).

<sup>10</sup> Examples include : Post Normal Science and the extended peer community (Funtowicz and Ravetz 1993), Rethinking Science and the agora (Nowotny et al. 2001), Wynne’s claim that legitimate participants in debate about framing are every democratic citizen (Wynne 2003), Jasanoff’s (2003) argument that the ‘worldwide movement’ is towards greater public involvement and that STS should not seek to critique this, Frank Fischer’s emphasis on the continued need to challenge technocratic forms of decision-making (2011).

## 12.4 Third Wave of Science Studies: Studies of Expertise and Experience

The idea that expert-claims should be properly scrutinized before being used to inform policy decisions is hard to dispute. The devil, however, is in the detail: who is best placed to perform such technical scrutiny and how should they be selected? If, as many in STS appear to do, you see science as essentially political, then extending the norms of democratic theory to the scrutiny of science, and by extension to the scrutiny of expertise in general, makes perfect sense. If, however, you see science as being something different – a culture or form-of-life in its own right – then imposing the norms of a different culture risks destroying science by undermining the values and norms that made it distinctive in the first place.<sup>11</sup>

It is this latter approach that characterizes the Third Wave of Science Studies (Collins and Evans 2002, 2007). Rather than try to subsume one into the other, Collins and Evans argue that it is better to ensure that each sticks to the tasks for which it is best suited. In other words, rather than extend democratic norms into expert debate, it would be better if the distinction between expert and political forms-of-life was re-affirmed and even celebrated:

Democracy cannot dominate every domain – that would destroy expertise – and expertise cannot dominate every domain – that would destroy democracy. (Collins and Evans 2007, p. 8)

The normative point that follows from this – and the claim that lies at the heart of the debate about the Third Wave of Science Studies – is that more lay participation is not always justified and the testing the limits of expert consensus is a matter for experts and experts alone.

### 12.4.1 *Problems of Legitimacy and Extension*

The argument for a more inclusive expert debate stems from the problems of legitimacy faced by technocratic decision-making in which expert advice dominates even as it rides roughshod over the concerns and knowledge of local groups. Including these groups in the policy process produces epistemic gains in that the expert claims are now better tested. There are also some political gains as citizens can see that a wider range of views, including the ones that resonate with their own lives, are now being taken into account. The problem of extension arises when the

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<sup>11</sup> A sporting analogy might help. In the US baseball and basketball are both games that share some characteristics (e.g. they are competitive, players are expected to train and try hard, cheating is not permitted and so on). On the other hand, they are also different in important respects (you cannot bring a large stick onto a basketball court, for example) and imposing the rules of one sport on the other makes no sense.

epistemic benefits of more diverse scrutiny start to diminish as the new participants lack the expertise to ask appropriate questions or make informed judgments.

Using expertise as the criteria for participation has no effect where decision is a political one. This is because all citizens are assumed to be capable of carrying out their civic duties and so the problem of extension cannot arise in a democratic process. Where the decision is a technical one, however, and the criteria for entry is the meritocratic one of relevant expertise, the same assumption – that all people are equally capable – cannot be justified and the problem of extension can arise.

The difference between the democratic norms of political decisions and the meritocratic process of expert scrutiny can be illustrated with some examples. Starting first with the case for more heterogeneous expert debate, many of the classic case studies in STS show how the failure of meritocratic norms (i.e. the failure to recognize legitimate expertise) has undermined confidence in technological decision-making. In these cases, expert consensus had formed too easily as official and/or elite experts met with other like-minded experts and confirmed the validity of their own world views. Although concerns were raised, these were often dismissed as being anecdotal or uninformed, with the result that potentially important evidence and insights were overlooked. Including this expertise by extending participation might have made consensus more difficult to reach but it would, nevertheless, have been the right thing to do.

To see why there might be a limit to expert participation requires paying attention to a rhetorical move that has become increasingly common in the social sciences. In many of the studies that inform the call for more inclusion, the non-scientist experts are often called lay experts (Prior 2003). This formulation puts the stress on their ordinariness rather than their expertise and it is a relatively short step from here to argue for more lay (without the expert) participation. The flaw in the argument is that the lay experts were generally valuable because of their “expert-ness” rather than their “lay-ness”. As the following two examples show, when genuinely lay (i.e. non-expert) people become embroiled in those parts of technological decisions that require specialist, technical expertise the outcome can be far worse than if it had been left to experts alone.

#### ***12.4.2 AZT for Preventing Mother-to-Child-Transmission of HIV***

When Thabo Mbeki was the President of South Africa he took the decision to block the use of AZT to prevent mother-to-child-transmission of HIV in pregnant women (Weinel 2010). Speaking in October 1999 to the National Council of Provinces, the upper house of the South African parliament, he explained his decision as follows:

There also exists a large volume of scientific literature alleging that, among other things, the toxicity of this drug [AZT] is such that it is in fact a danger to health. These are matters of great concern to the Government as it would be irresponsible for us not to heed the dire warnings which medical researchers have been making . . . To understand this matter better,

I would urge the Honourable Members of the National Council to access the huge volume of literature on this matter available on the Internet, so that all of us can approach this issue from the same base of information.<sup>12</sup>

The reference to the internet is important as it appears that this conclusion is based entirely on Mbeki's own reading of the scientific literature and not as the result of any specialist technical advice. The outcome is that he gives much too much weight to views that have long since been discredited by the mainstream research community.

The consequences of this non-expert reading of the technical debate were disastrous: the introduction of the treatment was delayed for several years as Mbeki's decision was challenged and eventually over-turned but, while this was happening, several thousand babies were born with HIV that could have been prevented if the evaluation of medical research had been left to those with the expertise needed to undertake the task properly. If this had been done then the most likely outcome was a clear expert consensus that AZT was safe to use and could prevent at least some babies being born with HIV. Note, however, that this expert consensus would not, by itself, have compelled Mbeki to approve the policy. He could still have decided not to make the drug available. The only difference would be that he would have had to justify this decision on other grounds and not by invoking a long-dead scientific controversy (Weinel 2008).

### ***12.4.3 MMR Vaccine Controversy***

The controversy about the MMR vaccine began in 1998 with a paper published in the peer-reviewed literature and involves a man – Andrew Wakefield – who was a qualified doctor.<sup>13</sup> The main facts of the controversy are that Wakefield et al. published a paper in the *Lancet* in February 1998. The paper, which was based on study of 12 autistic children, explored the relationship between a measles virus and autism. Although the paper itself does not make an explicit causal link between the MMR vaccine and autism, Wakefield did suggest that the MMR vaccine could be a risk factor when presenting the research at a press conference. This claim was taken up by a number of patient groups and some newspapers and a vociferous campaign for a change in UK vaccination schedules was launched.

In response, the UK government insisted that the MMR vaccine was safe and that there was no reason to change policy (e.g. by allowing parents to opt for single vaccinations rather than the combined one). In making this claim they were

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<sup>12</sup> <http://www.dfa.gov.za/docs/speeches/1999/mbek1028.htm>

<sup>13</sup> For more information see Boyce (2007).

supported by the overwhelming majority of medical experts and could point to epidemiological data from many countries and covering several decades.

Sadly, however, the loss of faith in experts caused by previous failures of inappropriately technocratic policy-making meant that this expert consensus lacked credibility. The anti-MMR campaign continued to attract public support and parents continued to give credibility to Wakefield's claims. Vaccination rates fell and herd immunity was gradually lost. The result is that, at the time of writing, measles epidemics have re-emerged in the UK and emergency vaccination campaigns have been launched in several areas.<sup>14</sup>

## 12.5 Technical and Political Phases

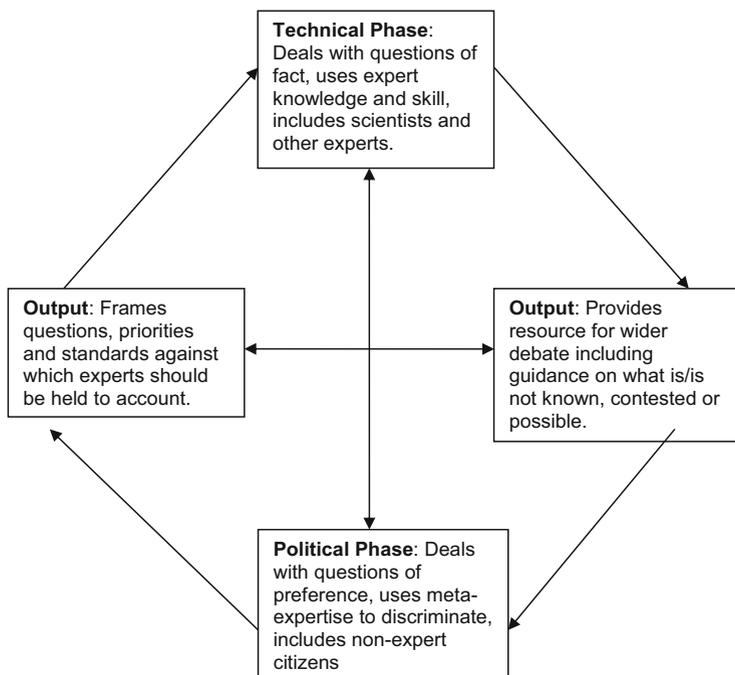
As the examples discussed in this chapter show, technological decision-making in the public domain invariably includes an element of specialist or technical expertise but it cannot be reduced to this alone. Wrapped around and related to these technical issues are broader public concerns that are the legitimate responsibility of all citizens. Working out how these expert and democratic institutions should be related can only be done by distinguishing between the technical and political phases of a technological decision.

The political phase refers those aspects of technological decisions that are the responsibility of democratic institutions and processes. Its guiding principles are those of democratic theory: participation is open to all so every citizen is able to contribute freely and equally to the debate. In contrast, the technical phase refers to those aspects of technological decisions that are legitimately delegated to specialist expert communities. The guiding principles here are meritocratic and draw on the values and norms of science. Participation is necessarily limited to those with the appropriate expertise but, as noted above, the definition of expertise used here includes non-scientists with relevant experience (see Chap. 2 by den Butter and ten Wolde, this volume). The relationship between the two phases is summarized in Fig. 12.4.

Applying these ideas to the canonical examples from the STS literature, the normative conclusion that follows is that experience-based experts should be recognized as legitimate contributors to the formation of expert consensus in the technical phase. This is broadly consistent with the standard interpretation of the classic STS case studies although the emphasis is on the expert status of new participants rather than their lay qualities. Where the political phase is involved then the argument would be that all citizens should be involved, either directly through political activities (e.g. standing for office, campaigning, lobbying, taking part in elections) or through their actions as a consumer (e.g. the classic options of

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<sup>14</sup> See for example: <http://www.bbc.co.uk/news/uk-wales-politics-23244628>



**Fig. 12.4** Technical and political phases (Source: Diagram is from Evans and Plows (2007))

exit, voice, and loyalty). The other three examples require a slightly more detailed explanation.

### ***12.5.1 Economic Forecasting and the MPC***

Despite not predicting the economic events of 2008 with any great accuracy, the Monetary Policy Committee of the Bank of England provides a good example of how technical expertise can fit into a wider political process. The Committee has a clearly defined role that has been given to it by Parliament, namely to meet each month in order to determine the level of interest rates consistent with price stability and other government objectives.

In order to do this, a group of economic experts meets and considers a range of economic data and evidence. The decision, the analysis that informs it, and the minutes of their discussion are all made available for inspection by others, though the work itself is always and only carried out by the experts and their forecasting team. Most importantly of all, the economic analysis produced goes to unusual lengths to convey the rationale for the decision and the risks that accompany it. As

Mervyn King, the then Governor of the Bank of England explained to journalists, the MPC is not engaged in the Sisyphean task of developing ever more accurate models in order to control the economy. Instead, the true value of the Committee is found in the consensus that emerges about what the risks to economic growth are and how those risks will be monitored.

Speaking in wonderfully colorful language, King tells a journalist who has just asked a question about the differences of opinion between Committee members:

if you're really interested in the question of what will happen to interest rates . . . then forget getting out a ruler, throw your rulers away, be liberated . . . and start to think. That's what we're trying to help you to do, to think for yourself, by our identifying what to us are the main risks. And what will happen to interests rates will not depend on whether people can get their rulers sufficiently accurate . . . What will happen to interest rates will depend on whether or not the risks that we discuss in this report crystallise.<sup>15</sup>

From the perspective of a Third Wave analysis, this is exactly what technical advice should do. Experts need to advise in order that others can take note of their analysis and decide how best to proceed.

It is, of course, always possible to argue that the limited number of external appointments – 4 out of a total of 9, the other 5 being employees of the Bank – mean the MPC is unlikely to represent the full spectrum of economic analysis. If this happens, then the outcome would be analysis that considers only a sub-set of legitimate concerns and gives too little weight to some risks. Changing the balance between Bank and external appointees or deliberately appointing more heterodox economists might provoke a more wide-ranging discussion and could be considered. For example, in addition to having experts from the main theoretical schools in economics, it might be useful to have experts with experience of working in different sectors of the economy. To some extent this does happen and how much current practice would need to change in order to make an appreciable different is hard to say without actually trying it.

Finally, it should be noted that the fact that the official Bank of England MPC is responsible for acting on its recommendations makes no difference. If, for some reason, the remit was changed so that the outcome of each meeting was a recommendation for the government to either accept or reject very little of what has been said would change. The reason is that, within the Third Wave approach, the starting point is that the political phase always has primacy over the technical phase. In other words, technical advice is only ever advice; decision-making authority resides with the political process even if, as in this case, they choose to delegate it.

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<sup>15</sup> Source: transcript of press conference. Available from <http://www.bankofengland.co.uk/publications/Pages/inflationreport/ir0703.aspx>

### ***12.5.2 AZT for Preventing Mother-to-Child-Transmission of HIV***

In the case of Thabo Mbeki, the normative recommendation is more straightforward. All the evidence suggests that, by 1999, there was a strong expert consensus that AZT was safe to use. As such, policy making should start from that position. The recommendation does not go any further than this, however. Recognizing the existence of the consensus does not mean that Mbeki would then have been compelled to introduce the AZT policy. Rather the point is that, if he were to decide against the use of AZT, he should not justify this choice by reference to an expert disagreement that does not, for all practical purposes, exist.

Had the technical consensus about AZT been much weaker and the controversy Mbeki referred to real, then the situation might have been different. If there was still significant uncertainty about the efficacy of the treatment, then Mbeki could have been justified in waiting for further trials or deciding that other interventions offered a better chance of success. Two things need to be stated about this hypothetical scenario, however. The first is that assessing the strength of the technical consensus remains an expert task and is not something that lay people can do. Secondly, whatever the outcome of the technical phase turns out to be, the political phase has to represent it fairly and accurately. In other words, just as Mbeki was wrong in 1999 to say there was a controversy, he would also be wrong in this hypothetical scenario to claim that there was no expert disagreement and no uncertainty about what lay ahead. In other words, the expert consensus, whatever its strength or content, should always inform policy-makers but it should not be distorted by them.

### ***12.5.3 MMR Vaccine Controversy***

The MMR case appears trickier because the source of the controversy is a doctor and this appears to suggest there is a legitimate expert disagreement that needs to be acknowledged. In fact, as other experts were able to point out, although the paper was published in a peer reviewed journal, the results were based on a small study and did not provide anything like the evidence needed to justify the change in policy that Wakefield and his supporters wanted. Indeed, the peer-reviewed paper does not actually make a causal link between MMR and autism; this was done in a press conference about the paper. Given this, there seems no compelling technical reason to recommend a change in vaccination policy as there is no expert controversy that policy makers should be responding to.

In political phase, parents and others obviously have the right to campaign for changes to any policy. Given that, prior to the publication of Wakefield's paper there was no evidence that MMR was harmful and it was already well-known that measles is a highly contagious and potentially dangerous disease, the government's decision to continue with the policy of MMR vaccinations can be seen as

reasonable. As with AZT in South Africa, there is a strong expert consensus that the current policy is the best one and, for the government to respond to Wakefield's claims, would be to make the same mistake as Mbeki did when he endorsed the maverick science of the AIDS skeptics.

Seen this way, the public health problem of MMR is really public relations problem caused by earlier scandals of expert advice. Put simply the government and its expert advisers were not trusted and there was a strategic decision to take about whether or not an alternative policy, such as making single vaccines available for children whose parents refused to consent to the MMR vaccine, could be justified on the purely pragmatic grounds that the current policy had lost legitimacy, albeit for completely spurious reasons.<sup>16</sup> In fact, the one thing that probably would have made the difference in this crisis of trust was the Prime Minister, Tony Blair, saying that his son had received the vaccination. His refusal to comment on what decision he and his wife had made about their own child inevitably led to speculation that he had refused to consent to the vaccination and this could only reinforce the doubts of those who were already skeptical. A more principled response would have been for him to declare that, as the leader of the country, he was following the advice of his own experts.

## 12.6 The Value of Expert Advice

The preceding analysis of expertise has been based around three main points:

- Expertise is limited to specific fields and domains (e.g. economics, medicine, public health)
- Heterogeneous expert institutions are needed to ensure full and robust testing expert claims
- Not everyone can be an expert so these expert institutions should not be open to non-expert lay citizens

What is missing, however, is a general argument that would justify the continued use of specialist technical expertise within policy making. The problem here is that the most obvious normative arguments for experts are epistemic arguments. As such, they only really work when the experts are right or are at least known to have a very high probability of being right. Thus, for example, we can see why expert advice was relevant in the two medical examples given above: it was known with a high probability that AZT would reduce the risk of Mother-to-Child-Transmission and that MMR does not cause autism. In contrast, the case of the economic fore-casters is much less clear cut as here the epistemic argument does not appear to

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<sup>16</sup> There was some debate about this but the research evidence suggest that single injections are less effective than the combined injection as children are less likely to have all the injections needed.

work: not only were they wrong in 2007, we also know that the probability of them being right in the future is low, especially when compared to sciences like medicine and physics.

In practice, however, this problem is not limited to economists and might even be the more standard case of expert advice. If we ask when is expert advice most likely to be needed, then the answer seems to be when there is doubt or debate about the best course of action to take. In other words, the problem of expertise is most acute at the very times when expert advice is most needed and who counts as an expert is itself a matter of dispute. In these circumstances, the epistemic justification for expertise is of little use and other arguments are needed if we are to avoid a purely political resolution in which expert status is granted to those best able to mobilize resources in their support.

In fact there are three main reasons for continuing to defend the idea of expertise and for promoting institutions in which the expertise needed to provide specialist, technical advice to policymakers can be developed. These are:

- *The Expert Community as Boot Camp*: Being an expert typically involves providing advice that goes beyond the routine application of pre-determined rules. Instead, nuanced judgment and the ability to respond to novel situations are essential. As this requires going beyond simple rule-following behavior, some form of tacit knowledge is needed in order to know how to apply disciplinary knowledge in new settings. Maintaining the expert community enables these tacit skills to be honed by providing a context in which novices can be trained and experience shared. Of course, this does not guarantee that the expertise developed in this way will be useful or even relevant but, without some social community to hold the knowledge, then the only outcome is that whatever expertise currently exists will be lost.
- *The Expert Community as Aspiration*: The philosopher Nelson Goodman has argued that it is important to retain the notion of art forgery even if it is impossible to distinguish between real and counterfeit works of art. The argument is that, even if it is currently impossible to tell the real from the fake, there may be a time in the future when new technologies do make it possible. If, however, the need for the distinction is not defended now, and the difference between real and fake loses its significance, then the opportunity to tell them apart may be lost forever. The same argument can be extended to expertise in general: even if an expert community is not particularly good at predicting now, allowing them to continue to develop their skills and methods keeps alive the possibility that they may improve over time. If the community is disbanded then the possibility of future success is also abandoned.
- *The Expert Community as Part of Modern Society*: This argument follows most directly from the Third Wave of Science Studies paper (Collins and Evans, 2002). Here the claim is that the scientific community is characterized by a distinctive set of values that are good in themselves. In other words, the argument for science, and by extension expertise, is not an epistemic one but one based on values. Retaining an expert community modeled on the scientific

community means retaining a form-of-life within which scientific values provide the formative aspirations. Under this argument, choosing not to value expertise means allowing a core part of contemporary democratic societies to wither.

Of course, none of these arguments are arguments for or against expert consensus. Instead, they are simply arguments for turning to experts when the problems of technological decision-making require some specialist, technical input. Having made the choice to seek advice, the normative argument is not that policy-makers should defer to scientists but that the technical advice is provided by experts whose actions conform to scientific values. What happens after this depends, in part, on what the expert advice turns out to be, though it would be quite wrong to say that the fact of expert agreement is enough to close the policy debate. To say this is to argue for technocracy.

Instead, the requirement is that the technical advice – be it consensual or contested – should be accurately portrayed within public debate. Where expert consensus is strong, this should be acknowledged and policies that reject this advice should say why this has been done. In other words, a strong technical consensus does not restrict the policy choices available; what it restricts are the reasons that can be given in order to justify them. In the opposite case, where expert advice is contested, then policy-makers have exactly the same freedom to determine policy but the justifications remain equally restricted as they can no longer claim that a strong expert consensus exists to legitimate their policy.

## 12.7 Conclusions

Expert advice is an essential part of technological decision-making in the public domain. To attempt to defend it on epistemic grounds is not helpful, however, as experts can be wrong and, when this happens, may lose their legitimacy. Defending the role of experts requires a different approach to understanding what technical experts can do and how this contributes to the broader process of technological decision-making in the public domain.

Drawing on the example of economic forecasters in particular I have argued that maintaining the distinction between the technical and the political is crucial. Distinguishing between the two is best done on the basis of the formative intentions that characterize the two cultures and this is also the reason why expert institutions need to be preserved and valued in their own terms. Without this defense of scientific values, then the institutions of expertise risk being politicized, with the result that the scientific form-of-life becomes corrupted and, ultimately, lost.

In practice, the problem is inevitably how to strike the right balance between the technical and political. The argument set out here is that the political always trumps the technical but that it cannot distort or miss-represent it. Where advice is based on a clear and strong agreement then policy makers should not claim that experts disagree. Conversely, where experts do disagree, then policy-makers should not

legitimate policy choices by citing some experts and ignoring others in order to create the impression of agreement.

Finally, there is the problem of how to choose experts. Here the principles are clear, even if how to put them into practice is not. Expert advice needs to be sufficiently diverse that it does not simply allow elite institutions to impose their own priorities and unjustly further their interests at the expense of others. On the other hand, political decision makers and lay citizens must resist the temptation to accept any skeptical claim as valid and so end up undermining the idea of expertise itself. Technological decision-making in the public domain thus requires both decision-makers and citizens to understand what expertise is and to have the courage to put limits on where it resides.

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