The roles of social science in public dialogue on science and technology: report of a one-day stakeholder workshop, 4 July 2008

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Edited by Kevin Burchell and Kerry Holden
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5pm	Informal drinks reception

Attendees

Name	Institution	Email
Aggeliki Biliri	Edinburgh University	aggeliki_bil@yahoo.com
Alice Taylor-Gee	The BA	alice.taylor-gee@the-ba.net
Bano Murtuja	Vis-à-vis	bano@vis-a-vis.org.uk
Beth Chesney-Evans	Sciencewise	beth.chesney-evans@aeat.co.uk
Darren Bhattachary	BMRB	darren.bhattachary@bmrb.co.uk
David Atkins	Food Standards Agency	david.atkins@foodstandards.gsi.gov.uk
Eric Jensen	Open University	e.a.jensen@open.ac.uk
Gillian Rendle	Research Councils UK	gillian.rendle@rcuk.ac.uk
Jacob Leveridge	The Wellcome Trust	'J.Leveridge@wellcome.ac.uk'
Jack Stilgoe	Demos	jack.stilgoe@demos.co.uk
Jackie Haq	Newcastle University	j.m.haq@newcastle.ac.uk
Janet Lewis	Academy of Social Sciences	janet.d.lewis@btinternet.com
Karen Folkes	DIUS	karen.folkes@dius.gsi.gov.uk
Kerry Holden	LSE	k.holden@lse.ac.uk
Kevin Burchell	LSE	k.burchell@lse.ac.uk
Lesley Patterson	Royal Academy of Engineering	Lesley.paterson@raeng.org.uk
Maggie Leggett	University of Bristol	maggie.leggett@bristol.ac.uk
Mark Dyball	People, Science and Policy	mark.dyball@peoplescienceandpolicy.com
Martin Bauer	LSE	m.bauer@lse.ac.uk
Matthew Kearnes	Durham University	m.b.kearnes@durham.ac.uk
Melanie Knetsch	ESRC	melanie.knetsch@esrc.ac.uk
Melanie Smallman	Think Lab	melaniesmallman@think-lab.co.uk
Peter Mills	HGC/Department of Health	peter.mills@dh.gsi.gov.uk
Phil Macnaghten	Durham University	p.m.macnaghten@durham.ac.uk
Rob Doubleday	Cambridge University	rvld2@cam.ac.uk
Roland Jackson	The BA	roland.jackson@the-ba.net
Sarah Cunningham-Burley	Edinburgh University	sarah.c.burley@ed.ac.uk
Sarah Davies	Durham University	sarah.davies@durham.ac.uk
Sarah Franklin	LSE	s.franklin@lse.ac.uk
Sarah Parry	Edinburgh University	sarah.parry@ed.ac.uk

Introduction

The inspiration for this workshop came in March 2008 from an invitation to participate in a social science workshop in Zürich in June 2008, entitled 'Ironists, reformers or rebels?: the role of social science in participatory policy-making'. When I considered this topic, my thoughts immediately turned to the extensive and diverse network – consisting of policy, practitioner, academic actors, as well as a range of others – that has emerged in the UK around the practice of a particular form of public participation in science and technology that is known in the UK as public dialogue. In the UK, public dialogue typically implies officially-sponsored, iterative processes in which structured deliberation between citizens, 'experts' and policy-makers is emphasised, and which are carried out as part of a specific policy process. In particular, it struck me that a largely academic social science discussion of these issues would be enriched by a talk on the ways in which the roles of social science in public participation are understood by the non-academic actors within this network. With this in mind, I embarked on some small scale research into this issue, which I later discussed at the Zürich workshop. At the same time, I started to think about the possibility of feeding back the results of this work to the UK network itself. Two weeks later, the opportunity arose within my own institution, London School of Economics (LSE), to bid for a small sum for the purposes of 'stakeholder engagement' or 'knowledge transfer'. This seemed to present an opportunity to gather together a group from this UK network to discuss the role of social science in public participation in science and technology from a number of perspectives. Happily, the funders agreed and the workshop took place in London in July 2008.

My objective at the workshop was to provide space for conversations about the roles of social science in public dialogue on science and technology, and the broader Science and Society agenda, between policy actors, public participation practitioners, academics and other interested parties. The relationship between academic social scientists and policy initiatives relating to science and technology could be described as sometimes successful, yet occasionally ambiguous or even contentious. For independently-minded academic social scientists, policy engagement of this kind, while offering potentially highly fruitful empirical and conceptual opportunities, also brings the potential challenges of co-option, reinterpretation and, in extreme cases, vilification. With this in mind, it was my intention to provide attendees with enhanced understandings of the frames of reference, preoccupations and ways of doing things that characterise the other actors and institutions in the public dialogue network. It is my hope that this workshop will prompt other similar events and will lead, over time, to increasingly collaborative and productive working relationships between social scientists and other actors working in the field of public participation in science and technology.

Above all, I think the workshop revealed the scale of the challenges – for all of the stakeholders – in this novel, yet incredibly important, area. A repeated theme in the workshops was the search for shared languages, understandings, objectives and even timeframes, not only between social scientists and other actors, but also between policy actors and practitioners for example. The roles of social science in public participation on science and technology emerged as multiple, fluid, contested, ambiguous, uncertain and contentious. In particular, academic social scientists and other actors often had starkly different ideas about what the roles of social science in this emerging policy area might be. Sometimes these were expressed in terms of functional roles (such as, analysts, practitioners, experts, evaluators, observers or scientists). At other times these were recast as intents (such as instrumental, descriptive, analytical or critical) or as the organisers of the Zürich workshop put it, ironists, reformers and rebels. Further, as part of my fledgling attempts to conceptualise these issues, they were discussed in terms of the ways in which these ideas constitute the discipline of social science (such as, rather benignly perhaps, providing a helping hand or, more sharply, as a discipline that is servant or handmaid to the objectives of others). These discussions about roles inevitably raised questions about the relevance of social science and, perhaps more pointedly, the range of forms of relevance social science might have (such as, academic, policy, public or economic) and who decides what form of relevance is wanted and what is not.

This report contains heavily edited versions of nearly all the talks at the workshop. Although they are heavily edited, I think they give a very good flavour of the discussions at the workshop. I am very grateful to my colleague Kerry Holden who undertook this task, even while fleeing the UK for a visit to Berkeley, University of California. I would also like to express my sincere gratitude to: the Higher Education Funding Council for England (HEFCE) (which funded the workshop through its Higher Education Innovation Fund), the Research Projects and Development Division at the London School of Economics and Political Science (which facilitated that funding), Kathrin Braun who helped me a lot with the development and analysis of the stakeholder research, a number of other individuals (Victoria Dyas, Sabrina Fernandez, Karen Folkes, Sarah Franklin, Priska Gisler and Silke Schicktanz), all of the speakers at the workshop and the other workshop attendees.

I am currently elaborating on some of these issues in more detail in materials that are due for publication later in 2009. The first of these is the final report of the Wellcome Trust-funded ScoPE project (Scientists on Public Engagement: from communication to deliberation?), jointly authored by myself, Sarah Franklin and Kerry Holden. In this report, which is due for publication in September 2009, we discuss various aspects of the so-called UK public dialogue network in more detail. The second is a paper in the open-access, web-based journal, *Science, Technology and Innovation Studies*. In this paper, I elaborate on some of the conceptual issues relating to the relationships between of the academic social sciences and policy institutions that I raise here.

Kevin Burchell
k.burchell@lse.ac.uk
January 2009

Session one:

Non-academic perspectives on the roles of social science in public dialogue

Kevin Burchell, LSE

In the first of his two talks, Kevin described the results of the small scale study that he undertook to begin to understand non-academic perspectives on the roles of social science in public dialogue on science and technology. Kevin provided a more analytical take on this material in his later talk. Kevin drafted six questions around the following themes, and emailed them to sixty individuals working in forty five relevant institutions:

1. Examples of the actual roles of social science.
2. What questions should social scientists address?
3. What is the success of social science in this regard?
4. What are the normative roles and purposes of social scientists?
5. What are the challenges of working with social scientists?
6. Any other comments?

Kevin received only eight responses, representing the views of just 12 individuals! Respondents included a group from the BA, representatives of the Science and Society teams at the ESRC and RCUK, commercial practitioners, an evaluator, a commissioner/expert, a high profile practitioner and a representative from the Academy of Social Sciences. Despite the obvious limitations of this data, Kevin was able to draw out a number of key themes for discussion. A key finding from the data was that respondents were generally positive about the potential contributions of social scientists to public participation. Social scientists were said to perform a 'fantastically valuable' and 'vital' role in the practice and strategy of public dialogue. The group from The BA commented that social scientists 'can act as critical friends to practitioners'. However, in opposition to this praise, respondents also expressed uncertainty, disappointment and frustration at the frequent failure of social scientists to fulfil this potential.

A whole raft of ways in which social science aids the practice of public dialogue was discussed in the data. These included the introduction of new and innovative methodologies; the framing of issues and questions; models for measuring outcomes; and the interpretation and representation of public views. Social science was also said to perform a valued role in strategic thinking about public dialogue mainly by mapping the context in which it was sought and what its long term impacts might be. There were a number of comments surrounding the contextualisation of public concerns and the articulation of different view points. There was just one response suggesting that the role of social science might be to ask challenging questions, such as the extent to which public dialogue is a tokenistic gesture, the ways in which inequalities and interests are embedded within dialogue practices, and the willingness or ability of those in power to listen to what comes out of public dialogue?

Respondents also highlighted a number of ways in which social science is unhelpful. The BA asked: can social scientists please apply their skills to understanding their own relationship with the practitioner community? Are social scientists passive observers or co-participants? Are these roles mutually exclusive? There was consistent tension over the role of social scientist with both the RCUK and the ESRC asking: 'do [social scientists] regard themselves as scientists and therefore part of the science and society equation or as third party observers/researchers?' Another criticism came from a high profile practitioner who questioned the practical relevance of social science. The BA echoed this concern in reference to the ESRC Science and Society programme, saying that 'most of the summary reports in the wide-ranging ESRC Science in Society (SiS) booklets are about the areas explored rather than practically useful findings or are so general that they are of limited use.'

Practitioners also reported that they often find the language used by social scientists impenetrable, which a commissioner said 'can create challenges', but also added that it was 'easy to overcome.' Language can appear very dense and obtuse, littered with meanings accessible only to those in the know. Paradoxically, it was argued in some quarters, this mirrors some of the very complaints made by social scientists of cultures of expertise. A related criticism levelled against social scientists is the tendency to inhabit their own ivory towers, and because of this the public voice gets lost. Kevin added that this is a surprising complaint given that social scientists have long championed the public voice in debates about science and technology.

Kevin suggested that the overriding message from the data was that social science has relevance among the public dialogue due to its potential to provide what Kevin referred to as a 'helping hand' (see Kevin's later talk for further discussion of this). However, critique can be frustrating and not relevant, an exception being the capacity to raise challenging questions about the broader significance of public dialogue. Kevin concluded with a number of questions for the workshop attendees. If the role of social science is to provide a helping hand, how does that constitute social science?. Does relevance equate to value? And at what cost does relevance come? Should social scientists worry, like Wynne, about becoming too involved? Is it the role of the analytical professions to remain at a distance? To return to the idea that social scientists are critical friends, to what extent should that role be prescribed and how might it differentiate from other roles social scientists perform? Do social scientists have an obligation to take-up a position?

Discussion

Darren Bhattachary asked a question about relevant and the tendency of social scientists to think negatively about being relevant and equating it to co-option. From his experience, this resistance to producing relevant research has hindered institutional change and should be readdressed.

Janet Lewis spoke from her experiences of having been research director at the Joseph Rowntree Foundation (JRF) for fifteen years. She pointed out that Kevin appeared to assume that all social scientists are academics. During her time at the JRF she had found academic social science research inaccessible and often presented in obscure language, which made it difficult to discern key findings from the research. She mirrors Darren's comment by saying that this was detrimental to the work of the Foundation.

In response to the two points raised about relevance and accessibility, Phil Macnaghten asked what is the point of public dialogue and where do initiatives come from. Public dialogue responds to a particular political agenda. Therefore, what constitutes relevant and accessible social science research can only be usefully understood within the, political, context within which it is being developed. Phil sensed that there was an imperative not only on behalf of academic but also practitioner communities to not lose sight of the political context in which their work derives meaning.

Matthew Kearnes added that he perceived something of a turf war between academic social science and practitioners over the 'public' and the best way to undertake public participation.

Sarah Cunningham-Burley stated that there was a tendency to overlook the plurality of social science research. Social science disciplines have continually questioned the position of the researcher with social scientists often occupying a multiplicity of roles both as the distanced observer and active participant. Sarah Franklin supported this comment by drawing attention to the fact that the workshop was hosted by the London School of Economics, where social scientists of every stripe reside. Many of whom are equally practitioners and academics. ■

Kevin Burchell

Kevin Burchell is a Research Fellow in the Centre for the Study of Bioscience, Biomedicine, Biotechnology and Society (BIOS) at the London School of Economics and Policital Science (LSE). Following a career in advertising, Kevin obtained a BSc (1997), MSc (1998) and PhD (2005), all in the Department of Geography and Environment at LSE. Kevin works on the relationships between science and technology, the public and science policy, particularly within the context of the range of 'public technologies' that are currently employed to manage such relationships. Kevin has a particular focus upon the attitudes (or discourses) of scientists and other experts with respect to these issues; in this regard, Kevin currently manages the three year ScoPE (Scientists on public engagement: from communication to deliberation?) project, funded by the Wellcome Trust, and conducted his doctoral research in the context of agricultural biotechnology. Kevin also analyses the political and social aspects of the UK government's commitment to 'public technologies', and is interested in the network or community that has emerged as a result of this commitment. Kevin's approach might be helpfully located at the intersections of science and technology studies (STS) and critical approaches to public understanding of science (cPUS).

Session two

The role of social science in the real public dialogue world

Darren Bhattachary, BMRB

The good, the bad and the ugly

In his presentation, Darren reflected on the relevance of social science for institutions. Darren made the point that collectively the social sciences had been hugely successful at opening up what he coined institutional space. This he defined as space that allows for different voices to emerge with the effect of shaping the conduct and practices of both private and public organisations. The shortcoming of social science, from Darren's perspective, has been a failure to fully embrace institutional space and make the most of it. Throughout his presentation he pointed to a number of reasons why he thought this might be.

Darren began with the question, what is the use of social science? The good thing about having trained as a social scientist is that it enabled him to think more analytically and critically about dialogue. When thinking about the scholars who influenced him Darren organised them into a football team. He conceived an academic dream team, of sorts, with German social theorist Jurgen Habermas in goal '*defending against the post-modernists.*' JL Austin, Donna Haraway and Ulrich Beck were in central defence with Anthony Giddens and John Dryzek in right and left back. Sheila Jasanoff and Ortwin Renn formed the core of the midfield. Brian Wynne and Jacqui Burges chipped in thoughts on institutional reflexivity down the wing, and finally Alan Irwin delivered the goals as centre-forward.

Darren still draws on the work of these scholars in his current position to inform how he conceptualises and frames a particular issue. His training in social science has provided him with methodological approaches to public dialogue and a deliberative sensibility. More significantly, social science has helped Darren to create and capitalise on institutional space where conversations about public engagement can take place.

From Darren's perspective, the bad thing about social science is that it generally fails to exploit institutional space. This failing he puts down to issues of relevance and a culture of disdain amongst academics towards making their research meaningful to external bodies. Much of academic social science gets lost in translation. Recalling his time at the Royal Society, Darren remarked that unless he initiated it, there was little input from social scientists. This appeared odd given that the Royal Society was remarkably receptive to including social science research in its activities. He cited the ESRC Science and Society programme, which the Royal Society offered to launch. The offer was never accepted and when the final reports were published, he sensed that they suffered from not having interacted with various institutions about the science/society interface, which limited the relevance of the research – for those institutions, certainly.

'*I find the accessibility of social science to be quite unhelpful at times'.*

Emerging from a PhD in social science and going into management consulting, Darren found that he wrote obscure prose bound up in managerial jargon, which he admits was appalling to read. 'Now, I tell my staff, if you write a sentence, read it back and think, can someone with no grounding in any area that we're talking about understand it. If yes, then you've done a good job. If not, then rewrite the sentence basically.' Learning to communicate complex ideas with clarity and accessibility is an important skill for social scientists to acquire if they want to reach different audiences.

Darren commented that another factor limiting the relevance of social science is its protracted timescale. As head of qualitative research at BMRB, Darren oversees multiple projects at any one time and produces lengthy reports at short notice. Academic social science, on the other hand, is predominantly undertaken over long periods of time because funding grants are awarded over two to three years. This creates a mismatch between the time frame of most institutions and that of academia. Darren admitted that his role is tightly bound to institutional pressures and largely dictated by the needs of his clients who seek answers from the research they have commissioned. He is employed to deliver a product.

'*I need to answer their questions, understand their context, where they're coming from, their own power relationships and things that move them on.'*

Nonetheless, this is the world he works in and he asserted that unless social scientists begin to understand and negotiate the institutional space they have campaigned for in better ways then there is a danger they will continually fail to become part of the process.

With this in mind and moving swiftly onto the *ugly* part of his title (which he recast as *dirty*), Darren proposed that social scientists be prepared to get their hands dirty. They should be intrepid and venture into the institutional space they have made. Some institutions offer marvellous positions where social scientists can exercise creativity thinking about issues around public participation. In order to transform institutions social scientists need to become part of them.

'*The institutions don't change by running a dialogue programme or writing a paper, they begin to change by people working inside them, day in and day out, and putting some of those ideas on a daily basis to the people who work in them'.*

The biggest problem for Darren lies in convincing social scientists that consulting does not mean co-opting. Academics appear to disregard research relevant to external bodies as substandard. Consultancy is perceived as a threat to autonomy and the capacity to critically engage with an issue. There also appears to be some disapproval of academics that do put their heads above the parapet or get their hands dirty doing consultancy work. It puts their work and insights in a bad light academically and they are seen as instruments of power. But the issue remains as to what should be done with institutional space that has opened up to accommodate different stakeholders and members of the public. '*Institutions are not going to change overnight and it takes a long time to get them to reflect on their practices… it's not terribly helpful to think that any type of intervention in that space means that you're going to be co-opted*.'

Bano Murtuja, Vis-à-Vis

Where there's a will, there's a way

Bano opened wryly by stating, 'I presume that having done a PhD in social science, I am now infected with the social science gene, and don't need to define myself as such. I just am'. She focused her presentation on the work of Vis-à-Vis, the consultancy she helped set up in 2005. She began on an autobiographical note recounting her experiences of academic social science which led to her forming the consultancy.

Much of what Bano thought a social scientist's role should be in public engagement shaped the origins of Vis-à-Vis. In 2004, she was completing her doctoral thesis as well as working as a volunteer in a local organisation called the BME Health and Social Care Forum. Her PhD was on social exclusion and familial care in Pakistani communities. In her voluntary capacity Bano continually came face to face with policymakers whose policies, she noticed, had little connection to the lived reality of the people she supported through BMEHSCF. This is something she struggled with and often found herself asking: why don't policymakers just walk out of their door? She detected an aversion to change amongst most policymakers. They would tweak the process just enough to achieve what they needed to. Through her thesis and her voluntary work, she exerted some influence on the implementation of public policy, but by no means was she able to impact on policy development. From her experiences Bano learned that in the current system people and their communities exercised very little power over the development of policies that inevitably affected their lives. She perceived this gap as severely wanting and with this in mind, an idea of what Vis-à-vis could do started to formulate. However, Bano felt that were she to seriously begin to address this gap, it could not be done within the realm of academic social science.

There are three reasons why Bano left academia. First, the turnaround in academia was too long. 'I knocked on my supervisors door once and said I had really important findings that policy makers need to hear, and he responded with that's great, give it three years and we'll be published.' Secondly, she saw a need for rigorous qualitative information in policy circles that was also digestible. Her academic work wasn't digestible and making it accessible meant defying academic standards. Thirdly, she thought that the most she could achieve in academic social science was to represent the voices of others. A position she felt uncomfortable with. She wanted to create a bridge to the policy world so that people could bring there own views and experiences to the decision making process.

The approach Vis-à-Vis takes in its consultancy work is an adapted model of a social science method called social impact analysis. Social impact analysis takes a circular form focussed on understanding the impact of policy at the level of community and feeding that analysis back into its development. From the outset, Bano felt it importance to distinguish between forms of public engagement and social research. Public engagement is about dialogue. It's about talking to people and having their voice shape the policy. Research is about collating and publishing information. Social impact analysis was weighted in favour of research and didn't traditionally incorporate public engagement. At Vis-à-Vis she adapted the method by merging it with public engagement to form what she called 'public social impact analysis'. This involves working collaboratively with members of the public and enabling them to do the social impact analysis. For Bano, it is people and the communities they are part of who need to be doing the impact analysis and shaping the policy directly.

She has encountered a number of problems with this approach, in particular, policymakers often show a desire for public engagement to say what they want it to say. From Bano's perspective this approach does not register as public engagement. In fact, her experiences have taught her that the public will tell practitioners whatever they think important, irrespective of what the desired outcomes are. Bano distinguished two types of public engagement commissioned by policymakers. Some commissioned a type of public engagement that ticks x, y and z box, which usually takes the form of focus groups, vox pops and workshops. Alternatively, some clients requested more dialogue with the public and wanted to hear an unmediated voice. They chose different tools of engagement like juries, enquiries and commissions where people are given more space and openness in which to deliberate on a particular issue.

'Einstein once said that 95 per cent of solving the problem was finding the right question, most policy makers seem to think that finding the right answer is defining the question'.

In attempting to reverse this equation through her work at Vis-à-vis, Bano has confronted obstacles reconciling what the public thinks with the requirements of policymakers. In the first instance she has encountered problems around language and communication. Policymakers, as well as academics, are accustomed to speaking in a particular language that is often obscure to members of the public. Equally, the unmediated voice of the public is often incoherent and chaotic to the ears of policymakers, who consequently hear what they want to hear. If Vis-à-Vis fails to marry the language of their public engagement activities with the language of policy makers then the results and findings of research have no affect. Bano brought her training in social science to bear on finding a solution to overcoming the language barrier between the public and policymakers. At Vis-à-Vis participants undergo training in order to speak the right sort of language when presenting to policymakers and likewise, policymakers are trained to use the right sort of language when talking to the public. Hopefully, Bano says, she will calculate herself out of the equation.

In addition to the language barrier, Bano found problems achieving consensus and legitimating differences in opinion in public engagement. Public dialogue events are inherently messy and need formatting otherwise different stakeholders tend to prioritise issues relevant to them. Also, members of the public inevitably qualify statements in different ways. In policymaking she found that it is not enough to say that people think across a whole spectrum relative to their life experiences, policymakers want definite information regarding what the public thinks. Once again, in solving these issues she drew upon her training as a social scientist. The analytical tool kit of the social sciences provides an abstract view of power relationships and inequalities. This is especially useful when trying to contextualise and understand the distribution of power and authority in public dialogue. Vis-à-Vis is committed to overcoming inequalities and promoting respect for marginalised voices, which Bano believes makes for better policy making.

These are some of the challenges Bano faces through her consultancy work that she hopes to overcome. On a final note, Bano explained that Vis-à-Vis is about engaging the disengaged and helping them to shape what she referred to as the social construct. By this Bano meant giving the public the ability to shape the policies that affect their lives and this implies learning how to impact upon the development of those policies. Her consultancy work is, therefore, not focused on a particular issue at stake, like what people think about nanotechnology, for example. Her work is focused on including the public in the processes that take place

to make something like nanotechnology a political issue. She hopes that with the involvement of social scientists in public participation, policy making will become more democratic and inclusive than it presently is.

Discussion

In response to Darren's point that social scientists fear being co-opted into wider institutional and governmental processes, Phil Macnaghten argued that is was very important for academics to retain a level of independence and criticality, otherwise why become an academic? For an academic, the objective of involvement in public participation is not to produce research that is of instrumental value to corporations or governmental bodies, but to critically engage in topical debate. Darren agreed with Phil's comment. However, he did think that there was a problem with academics filling institutional space, they are often perceived as having co-opted into the system or they retreat back into academia to avoid this. Darren emphasised trying to overcome this tendency by realising that there are different ways of communicating with institutions, critically as well.

Sarah Franklin addressed her comment to both speakers, asking what counts as the answer? Particularly, is what counts as an answer necessitated by what their clients what to hear? The goal of both presenters work is to deliver answers to clients; but the reality of what they talked about was finding a language with which to communicate. Bano appeared to imply that finding the right answer meant finding a language with which to bring social science research to the attention of policy makers. Sarah asked if they could elaborate on the difference between finding an answer and finding a language.

Gillian Rendle at Research Councils UK commented that there seems be an emphasis on getting something useful from the mess of public participation that has some bearing on policymaking. She asked how do social scientists conceive their role in terms of representing a diversity of views.

Bano agreed that there are issues of representation that necessitate a mediating voice. Her solution is to produce two reports, putting the mess of public engagement in one report and putting a more structured, digestible analysis in a second report. She disagreed that there was a tension between academic independence and being involved in the policy making process. She thought the idea of autonomy in academia was a red herring because all academics have a position. There is no reason why involvement in policy making cannot also result in academic papers.

Matthew Kearnes referred to Darren's presentation and commented on the sheer volume of research that goes on inside BMRB. Given the plethora of projects being undertaken and the turnover, what room is there to reflect on the research within a wider context? In answer to Matthew's question Darren said he had not the time to sleep never mind reflect upon the research. He said that he was involved in a much more mechanistic churning out of information, under severe financial pressures. BRMB is privately owned by WPP, a global market and advertising company, which puts short-term financial pressure on BRMB to perform. The reflective space lent to academia is not present in Darren's working life. ■

Darren Bhattachary

Dr Darren Bhattachary is a Board Director at BMRB – a major UK market research company. He heads up the Qualitative Unit, who use a range of social research methods to inform decision making across all major Government departments. Darren has a wealth of experience in public engagement and the design of deliberative processes for decision making. Since his time at BMRB, his S&T focussed work has included studies on climate change for nesta; stem cells for BBSRC and MRC; nanotechnology for the EPSRC; and radioactive waste management for the Environment Agency. He has also designed deliberative processes for high profile projects within government, focusing on how to engage the public in service design and delivery. Darren previously worked at the Royal Society, the national academy of science. Here, as part of the senior management team, he has played a key role in the development of public engagement to inform science policy. He has advised a host of government and other agencies on engagement activities and strategies. He has previously worked in consultancies in academia and the private sector, working on stakeholder engagement and organisational development. He holds a PhD on the use of deliberative processes for environmental decision making – particularly focusing on Habermasian critical theory, as a counterpoint to neo-classical economic theories for capturing public values for the environment. Before moving into social research, his earlier degrees were in the marine sciences.

Bano Murtuja

Bano Murtuja's Sociology and Social Policy PhD explored issues of exclusion, communities and welfare amongst Muslim communities resident in Britain and Germany. Upon completion of her thesis she founded Vis-à-Vis RC Ltd, an organisation which focuses on developing evidence based policy through social impact analysis and participatory action research. Bano's research interests are diverse, spanning issues of race, ethnicity, diversity, identity and faith to local regional and national governance. Her recent work has included: Citizens Inquiry into the Forensic Use of DNA and the National DNA Database, HGC; Needs Analysis for Capacity Building in Faith Communities, Home Office; Training in Participation techniques, Bristol University; DIY Community Juries in partnership with PEALS (Young People, Crime, Misuse of Alcohol and illegal drugs, Blackburn with Darwen; Young People, Exclusion and Crime, West Yorkshire Community Jury, Calderdale; Nanotechnology, Calderdale; BBC Jury on Respect, Reading). Bano is passionately committed to improving social justice and fostering inclusion within Britain and beyond, and has been active in the voluntary sector for the last 9 years. She is Strategic Director for Children and Young People at the Lancashire Council of Mosques, Co-Executive Director of the national Muslim Womens' Network; and is a founding member of Right 2B Heard.

Session three

Policy for public dialogue and public dialogue for policy: what is the role for social science?

Karen Folkes, DIUS

Policy for public dialogue: what is the role of social science?

Karen Folkes began by tracing the history of Sciencewise and its key objectives, strategically and operationally. She then gave an overview of current policy for public dialogue with a view to where it might go in the future with regard to supporting the Science and Society Strategy. She then went onto discuss the Expert Resource Centre and the Science and Society consultation document. The government is in full support of public engagement and set up the Sciencewise programme to promote its practice, especially to inform science and technology policymaking.

Sciencewise was launched in 2004 by Lord Sainsbury. It was set up to help policy makers take account of people's views on emerging issues in science and technology and to integrate them into national policy making. The launch of Sciencewise was seen as early recognition of the value of two-way dialogue processes in policy making. Previously, there had been some forays and expressions of interest in public engagement, but the Sciencewise programme really made it an established part of the government's science in society agenda. At Sciencewise, public dialogue is defined as an early, deliberative and face-to-face form of public engagement. It is not treated as something outside the whole communication spectrum. It's one player in the field. Importantly for Sciencewise, the practice of public dialogue involves scientists, members of the public, stakeholders and policy makers, all of whom bring something to bear on the subject under discussion.

Sciencewise essentially started out as an open grant scheme and developed into a commissioning programme. It has fulfilled a number of roles that Karen defined as strategic and operational. Strategically, Sciencewise aims to embed the practice of public engagement more firmly in policy making by supporting all government departments and agencies in setting up their public engagement exercises and incorporating the results into their policy system. In line with Council for Science Technology (CST) recommendations, in its report *Policy through Dialogue*, Sciencewise promotes capacity building through various activities that include awareness raising and networking across government as well retaining a corporate memory. Capacity building enables the overall policy system to carry out dialogue exercises on a regular basis and integrate the results more successfully into actual policies. From Karen's perspective Sciencewise has got a lot better at engaging with different communities from academic to governmental. Experts continue to play an important advisory role in public dialogue. None of the projects would work if there wasn't expert input from the scientific community and the other stakeholder communities. In order to anticipate public and expert involvement in science policymaking, Sciencewise has aligned its practices with the government's foresight programme and horizon scanning process. Operationally, Sciencewise offers an advisory service. Members of the Sciencewise team engage with policy makers on their dialogue needs. Karen emphasised that this cannot be done by email or phone, it requires face to face contact. In Karen's experience talking with people made a huge difference. Sciencewise also assists with the development and commissioning of projects and aids capacity building across government by identifying and disseminating guidelines for best practice.

Karen reflected on a number of lessons learnt from her experiences of setting up and managing Sciencewise. She identified a need to plug into policy needs early. In order to do this effectively, Karen noted that policymakers needed to be convinced that dialogue is worthwhile. This realisation had implications for the role and purpose of Sciencewise, transforming it into a commissioning body with projects undertaken to the best of everybody's ability and with sufficient quality. However, despite these manoeuvres Karen still sees problems with accessing the policy process at an early stage.

'Accessing the policy area early enough for it to actually have an impact on the decision-making process is an ongoing struggle because we don't know everything that is happening.'

Sciencewise continues the tackle this problem by raising awareness that dialogue is a practice that can be usefully employed in the policy process. Karen also commented that the Sciencewise team had learnt to reach out beyond the traditional science communication community. Public engagement isn't simply about information provision, it actively encourages changes in behaviour amongst all those involved and this includes government and expert communities. Identifying and understanding behavioural change is key to Sciencewise meeting its strategic aim of building an effective corporate memory, and for this it looks to other disciplines, in particular the social sciences for assistance.

Lastly, and perhaps most importantly, Karen had learned that the public are enthusiastic about being involved in policymaking. In a survey of the public attitudes to dialogue in March the overwhelming message was that people want more consultation and involvement. In the final part of her presentation, Karen talked about the Sciencewise Expert Resource Centre (ERC), officially launched at the end of May 2008, and the Science and Society Strategy consultation document. The ERC provides a one stop shop for information, advice and guidance for public dialogue in science and technology. It incorporates many of the functions already mentioned like disseminating examples of best practice, capacity building, and facilitating learning networks. It is hoped that the ERC will become an exemplar of public dialogue and work with government departments to embed public dialogue into all policy making processes. In addition to assisting government departments and expert communities, the ERC also acts as a signposting service for members of the public looking to get involved.

The Science and Society Strategy has been in development since October 2007. It has a three pronged vision aiming to foster 'A society excited by and valuing science; a society that is confident in the use of science; a society with a representative, well-qualified, scientific workforce' (A vision for Science and Society: a consultation on developing a new strategy for the UK, DIUS 2008). On a personal note, Karen foresaw public dialogue playing a significant part in accomplishing this vision. Public dialogue has the potential to forge robust relationships between stakeholders, the public, scientific community, and policymakers, which contribute towards building confidence in science policy and hopefully engendering excitement about the possibilities of science and technology. The Science and Society Strategy is currently in consultation,

inviting all members of society to submit their views on three issues. The first part asks how public participation can be improved by professionalizing it. The second asks how to improve public confidence in the uses of science and technology. And the third part asks how the UK can encourage young people to pursue a career in science and thereby create a diverse workforce for the future. Karen concluded her presentation by raising a challenge to the social scientists present by asking them where they see their role in these processes.

Peter Mills, Department of Health

Public dialogue for policy: an HGC perspective

Peter Mills found himself surprised to be in the company of social scientists. He had the distinction of not being and never having been a social or natural scientist. His presentation was based on reflections of public dialogue he had garnered over the course of his career. Peter had wide ranging experience of being involved in the development of policy and advising government on the implications of innovative science and technology. More recently he took up the position of Secretary of the Human Genetics Commission Secretariat.

'Thinking about the role for social science or what role my experience can play in this process are questions I always ask myself. Why engage in public dialogue in the first place? Who is the public in public dialogue? How should it be conducted? How should policy makers interpret and use the findings of public dialogue?'

The HGC was set up following a review of government's biotechnology advisory framework in 1999. Back in 1999 the government was concerned that the HGC should have among its terms of reference the requirement to develop and implement a strategy to involve and consult the public and other stakeholders in the current debate on the use of human genetic technologies. Peter remarked that the HGC is an odd beast. It's not a scientific advisory committee in the same mould as a lot of other committees. It is primarily interested in the implications of science and technology. From 1999-2008, the remit of the HGC was to analyse current and potential developments in human genetics and advise Ministers on their likely impact on human health and healthcare alongside their social, ethical, legal and economic implications. The HGC is a cross governmental advisory body. It is sponsored by the Department of Health, which is where Peter sits, and the Department for Innovation, Universities and Skills and the devolved administrations. It is a UK wide body because policy on human genetics is administered centrally, notwithstanding the fact that the commissioning of clinical services in genetics is under the remit of the devolved administrations. In its newly defined role the HGC advises Ministers on the potential ethical and legal implications of human genetic knowledge and it's implications for health and economic and social wellbeing, including the need to fill any knowledge gap. It also advises on the development of national policies and requirements for legislative action.

Rather conspicuously, the requirement that was there in 1999 to engage the public is no longer present. It has become so much part of the warp and weft of what the HGC does that it no longer needs specifying. It is an unwritten assumption that with any major issue the HGC considers there will inevitably be some sort of engagement with the public in quite a deliberative mould. In the latter half of 2007 the HGC was subject to a routine, light touch review carried out by independent reviewers. There is a very striking line from their conclusion that states '*the core business of the HGC is essentially strategic bioethical risk assessment*' (*HGC Review Report para 139*). This very much reflects the view that the government's investment in science and technology was at stake if issues relating to the ethical and social implications were not properly considered, mediatised and fed into the policy process. The review uses other phrases in a similar vein, stating that '*the HGC is a lightening conductor for government*' but the crucial thing is that public dialogue, at least in science and technology, needs to be closely tied in with horizon scanning in order to anticipate and assuage controversy.

After establishing the role of the HGC, Peter gave a personal reflection on why he is interested in public dialogue. He referred back to presentations earlier in the day, particularly about language and the opening up of new social spaces, which creates a heterogeneous landscape upon which public dialogue takes shape. He shared some concerns about how a policy maker might make sense of the potentialities of new technologies with regard to emergent social relations and admitted that he found social science slippery and underdetermined, which makes it difficult to integrate into policymaking.

The HGC is interested in engaging with the public in order to understand people's concerns and how to address them. It is also interested in understanding the language and concepts people, with no prior expert knowledge, use to discuss, think and argue about issues. In addition, the HGC wants to know what information people need in order to grasp complex issues and where the balance of public opinion lies. This latter reason is the most contentious because it raises questions about the criteria upon which ethical decisions are made and whose opinion counts. Peter referred to a statement made by Baroness Helena Kennedy in a debate at the House of Lords on the Human Fertilisation and Embryo Bill, more specifically, she was commenting on the issue of whether there should be a national standing bioethics committee.

'*I am unhappy about subcontracting ethics to a group of ethicists that forgets the fact that franchising out ethics to a set of eminent personages somehow takes ethics away from the rest of us. If we want to have an ethical society, we must all be our own ethicists*.' This statement is significant because, as Peter explained, it points to problems relating to the purpose of public dialogue for policy making. Addressing these problems is where he thought social science could make important contributions. At present, the HGC commissions a project group to facilitate and manage public engagement activities. Peter listed three problem areas where he thought social science knowledge could help in making public dialogue more meaningful for policy makers.

First, he perceived problems judging the validity of opinions. Developing a moral argument depends upon the ability to separate a judgement about an opinion from a judgement about the person who holds that opinion. He felt that this should be an essential condition of public dialogue and something social scientists could help with, in particular with questions about who constitutes the public and who policymakers should consult with; what kinds of people and groups should be included? Should the HGC consult with disinterested members of the public and force them to

confront quite contentious issues around, for example, the forensic use of DNA? Or should it restrict its public engagement to people who are more likely to feel the impact of new technologies?

Secondly, Peter encountered problems concerning how public dialogue should be conducted. As a commissioner, the most the HGC can hope to get out of public dialogue is to understand how it should go about commissioning it. Peter referred to the Sciencewise guiding principles as a useful format for conducting public dialogue, in that there should be clarity about how it feeds into the policy process, what the input of specialist information is, demonstration of the influence of public dialogue on the policy process, and follow-up and feedback. However, most dialogue events are facilitated by dialogue practitioners and do not involve policy makers face to face with members of the public. Therefore, for the moment there is dialogue is of the public and not with the public. Members of the public do not usually become directly involved in the HGC's work until they become used to the kind of information on which they're basing their reflections, which makes them experts of a sort. Peter's question to social scientists was how to design and manage public dialogue that was fit for the purpose of policy making?

Thirdly, Peter had concerns about interpreting and accounting for the outcomes of public engagement. He stressed that public dialogue does not determine policy, so what should its purpose be? If public dialogue is to feed into policy making, how should it be made accountable? Public dialogue should also not be seen to legitimise certain decisions but be considered alongside expert knowledge in the policy process. Peter thought that social science could help to contextualise public opinion and expectation

Discussion

Phil Macnaghten asked Karen if it was a case of making citizens enthusiastic about the science and scientists, or was it a case of thinking about the conditions in which science is worthy of our enthusiasm. Karen expressed doubt that everyone would be enthusiastic about science, but there is a need to make science more relevance to the needs of society and create transparency in the ways science used.

Sarah Franklin queried the need to professionalise public dialogue, as expressed in the Science and Society consultation by pointing out that the UK did not go down the bioethics route, instead the UK went down the public consultation route. One of the unfortunate things to happen to bioethics in the US when it became more professionalized was that it also became more managerial and systematic in its approach, which completely de-credentialised the very fact of having become professionalized. She asked the presenters if they had considered this potential effect of professionalizing public dialogue. ■

Karen Folkes

Karen Folkes is head of Public Engagement with Science and Technology in the Science and Society Unit at the Department for Innovation, Universities and Skills. Karen is currently leading the unit's work to develop a new Science and Society Strategy for the UK, to achieve Ministers' stated vision of a society that is excited by science, values its importance to our social and economic wellbeing, feels confidence in its use, and supports a representative, well-qualified scientific workforce. Karen's public engagement work includes promoting engagement and dialogue about science and technology and the issues that this raises for society; an overview of science and society work across Whitehall and strategies for improved collaboration and networking. This broad remit includes Government's flagship public dialogue programme, the newly launched Sciencewise-Expert Resource Centre for Public Dialogue in Science and Innovation (www.sciencewise-erc.org.uk); the Universal Ethical Code for Scientists; and, the three-yearly public attitudes to science survey. Karen was previously head of communications for the Technology Strategy Board and before that worked extensively in DTI with the bioscience sector on public engagement, and industrial and environmental biotechnology awareness programmes.

Peter Mills

Peter Mills currently heads the Secretariat of the Human Genetics Commission (HGC), which is based within the Department of Health. The HGC is the Government's advisory body on developments in human genetics and their ethical, legal, social and economic implications. The HGC has championed openness and the use of public dialogue to inform its advice to Government. One of its current projects is a Citizens' Inquiry into the forensic use of genetic information (and the National DNA Database). Before moving to the Department of Health, Peter spent a number of years at the Human Fertilisation and Embryology Authority (HFEA) where he led a number of policy initiatives that sought to involve public voices in various ways. These included reviews of policy on preimplantation genetic diagnosis (PGD), sex selection, preimplantation tissue typing ('saviour siblings'), and sperm, egg and embryo donation. Before joining the HFEA, Peter had a brief career in publishing and, in the more distant past, read PPE at Trinity College, Oxford, and received a PhD in philosophy from the University of Warwick for a thesis addressing the problem of epistemic discipline since the Enlightenment, drawing on the work of the contemporary French thinker, Michel Serres.

Session four

Ironists, reformers or rebels? Social scientists on social scientists and participation

Sarah Cunningham-Burley and Sarah Parry, Edinburgh University

Public engagement in stem cell research

Sarah Cunningham Burley and Sarah Parry used the example of their study, *Talking about Stem Cells: the Social Dynamics of Public Engagement in Stem Cell Research*, to discuss the role of social science in public engagement. Sarah Cunningham-Burley introduced the presentation with an overview of how the project developed before handing over to her colleague Sarah Parry who talked more personally about her role as a social scientist. Sarah Cunningham-Burley described the research team as led by social scientists but also including a science communication specialist and Austin Smith, an eminent stem cell scientist. The aims of the project are twofold: to investigate a range of peoples' views and concerns about stem cell research (and public engagement); and, to explore critically the scope for increasing public engagement in stem cell research through a range of public engagement techniques. The project will not only have substantive things to say about what people think about stem cell research but also aims to explore scope for increasing public engagement in stem cell research, which may have relevance for other areas of science and public policy. Sarah pointed out that with the exception of the science communication expert none of the research team were professional dialogue practitioners unlike some members of the audience. However, many of the techniques employed by dialogue practitioners, like focus groups and questionnaires, are well established methods originating in social science. There is plenty of overlap between professional practice and social science research. Sarah stated that 'from the beginning the project has engaged a wide range of publics and scientists. This means we are mindful about issues relating to identity, social location, and social context'. Unravelling these issues as they emerged in the dialogue events, and understanding their relevance for science policy more generally, involved using a range of analytical approaches and methods.

The project is nearing its end and as academics the two Sarahs have had the privilege of designing and carrying it out over a much longer time scale when compared to the deliberative practices conducted over a short period, which Darren and Bano described. This has provided ample time to balance emphasis on the different aims of the study. The study was designed to progress over four stages. At stage one discussion groups were held on issues relating to stem cell research. Stage two entailed bringing together different types of experts and publics in explicit ways in order to use dialogue as a way of countering the lay/expert divide. Stage three introduced innovative methodologies and involved a series of dialogue events inviting people to participate in discussion groups. The fourth stage of the project is approaching and will involve a final dissemination event. Sarah reflected on the wide variety of 'specialist' and 'lay' actors, some existing 'stakeholders' in debates about stem cells and others not, who had participated in the project.

From initial discussions there emerged eight themes that were considered worthy of further discussion, or were issues not previously raised but participants felt deserved attention. These themes were identified as: sources of tissue for stem cell research; tissue donation; use of animal tissue; anti-ageing applications; hype and hope; trust and regulation; commercialisation; resource allocation. Once identified, these themes were introduced through the dialogue events at stages two and three.

Sarah Cunningham-Burley felt that she and her team had been doing and studying public engagement at one and the same time. Responding to Bano's claim that public engagement is not research, Sarah stressed that during this project she had found the distinction blurred.

'We made it clear to those involved in our work that we are both researching what we're doing as well as doing what we're doing. We are stepping in and out of different roles'.

She then asked what could be learnt from this dual role. Public engagement means different things to different people and this project has confronted and managed that. The project found that lay participants and stakeholders ascribe different roles and expectations to themselves and other people involved. They also exhibit a range of different views about who should be involved, what the importance and status of public engagement is, and what the outcomes should be.

Sarah Cunningham-Burley handed the presentation over to her colleague Sarah Parry who explained more about the role of social scientists in dialogue. Sarah reflected on her own involvement in the project and the kinds of feedback she received, which ultimately crafted her own position as a social scientist.

'We've had some phenomenal feedback, positive feedback, and we've also had some criticisms too from people feeling like their voices have been slightly marginalized in the small groups'.

Drawing from her experiences she devised a list of the roles and responsibilities she found herself performing during the discussions and dialogue events, these included intermediary, translator, advocate, trouble maker, ironist, and reformer. Some of these roles she stepped into and some were ascribed to her by those involved. She moved between the roles frequently and often found herself occupying more than one role at a time. To some extent she found that her agenda, and that of the project, mirrored that of the scientists, public and stakeholders by remaining sceptical, yet hopeful of the role and impact of public engagement. Of their shared interests she said: '*Public engagement is at once a stage for the struggle for framing and meanings and it's also a stage for the expression of ambivalence. It's potentially a force for change and we hold onto that, and yet we find ourselves being enrolled in wider institutional agendas.*'

Sarah discussed the need for social scientists to adopt a more reflexive position and attend to their own involvement as well the ways in which they enrol others, like scientists and stakeholders, into public engagement practices. It was interesting for her to observe the dynamics between participants, in particular the ways they enrolled others and engaged with them during events. She observed a constant interplay of diverging interests and lack of agreement about the purposes and outcomes of public engagement with participants expressing uncertainty about the actual political impact of public engagement. In understanding her own position in the context of such fluctuating circumstances she said that '*we might identify our role as public sociologists*' who unsettle attempts to build coherence around public engagement by revealing the different subjectivities

and framings involved. She also saw it as the role of the sociologist to invite marginalised voices into discussions and events, and interrogate the mechanisms and processes whereby some voices are admitted and others excluded. From an analytical perspective the involvement of social scientists in public engagement creates space to antagonise the construction of hegemonic discourse and consider the power and role of social science knowledge in shaping public engagement.

'In practice, we adopted a number of roles and subject positions, not only were we working towards bringing about public debate and bringing that into sociology, but also taking our sociological analyses out into the public and this is something we've tried to build into our events'.

Kevin Burchell, LSE

Ironists, reformists, or rebels

Kevin introduced his second presentation by reflecting on a conference he attended in Zürich that focussed on the apparent absence of social science knowledge and expertise in public participation. Kevin was happy to say that today's workshop had proved that there was a definite place for social science in public participation, with each of the presenters drawing upon concepts, methods and philosophies of the social sciences.

'I think that we saw this morning that in the UK at least a certain kind of expert knowledge is readily included, welcomed and valued within these circles.'

The workshop in Zurich was called Ironists, Reformers or Rebels? It had a question mark at the end because the intention of the workshop was antagonise the role of social scientists in public participation. The title of the workshop was taken from the 1992 book by the philosopher Ian Hacking, *The Social Construction of What*? In this book, Hacking separates out different social constructivist approaches according to their political intent. The workshop borrowed his analogy and applied it to the involvement of social scientists in public participation and public dialogue. During the course of the workshop these three roles were recast as particular mindsets that had analytical and critical potential. Focus was therefore placed upon the historical context in which public participation emerged and the kinds of discourses it produces. Kevin pointed out that the discussion also emphasised what public participation perhaps denies and doesn't include.

To summarise how the three categories were conceived (although, as Kevin joked, the social scientists present at the workshop couldn't agree on their meaning), Kevin chose a representative historical figure. In the first instance, representing ironists was the great literary wit Oscar Wilde. Ironists assume analytical distance in order to proffer detached critiques and insights. They have no overtly stated intent to engage with or change the processes and practices they are describing, analysing and critiquing. Representing reformers was Millicent Fawcett, often considered a moderate reformist counter to the extreme radicalism of the suffragettes. Like ironists, reformers seek to offer analytical and critical insight but rather than remaining detached they take on a mediating role and form strong normative views about a substantive issue. Reformers promote collaboration between competing interests and operate from within a particular social group or institution mediating change. Rebels on the other hand are distinctly outside the system calling for radical change. The rebels were represented by the Mexican revolutionary Emiliano Zapata. Rebels are more ambitious in their intent to bring about change, they seek to destabilise roles and relationships and change agendas, not simply by addressing specific issues but by cross-cutting what Brian Wynne has called policy syndromes in order to revolutionise institutions and political processes.

The question emerged, how did Kevin see himself? In a manner typical of social scientists – or so quipped Sarah Franklin – Kevin antagonised the categories. Rather than position himself, he simply stated that he perhaps embodies all three at one time or another and might there also be other positions to adopt. An important consideration was the extent to which these three roles overlapped and interacted with each other, and whether or not there was compatibility on some levels as opposed to mutual exclusion. Recalling his presentation earlier in the day, Kevin pointed out that the helping hand analogy is not incorporated into these three roles. He had raised a similar point during the workshop at Zürich, which led to a discussion about the necessity for a fourth category based on the notion of helping. Instead of embracing the idea of a fourth persona embodying the role of helper, Kevin pointed to a number of potential problems. To what extent, he asked, does the helping hand analogy promote critique or seek to bring about change? Does it mean that social scientists go native, so to speak, and negate their critical distance? To illustrate the danger of adopting a helping hand, Kevin showed a still picture taken from the film *The Handmaid's Tale*, based on Margaret Atwood's novel set in a dystopian future where women are forced to serve a self-appointed superior class as handmaids. Could the helping hand of social science jeopardise critical distance and recast social scientists as mere servants subject to the whims of larger power structures. In conclusion to the Zürich workshop it was agreed that there was something positive about the role of the social scientists remaining fluid, multiple and contingent. It was seen as positive because it lent social scientists power. Being indescribable allowed social scientists to escape normative ideals of what their role should be and it generated a level of independence deemed important for critical insight. In respect of public participation, this fluidity, although frustrating to some, also created opportunities for social scientists to forge responsibilities to different social groups and thereby raise challenges and identify inherent risks and benefits independent of interested parties and individuals.

Kevin finished with humorous homage to the sociologist and STS scholar Brian Wynne. Just by chance Kevin googled Brian Wynne's name and found an image taken from the front cover of a book, written in the Western genre and utilising all the imagery of the Wild West with a cowboy riding forth. The book was written by a Brian Wynne and called the *Bravos*, the by line of which read, 'the odds were high but the stakes were even higher'. As Kevin stated, perhaps this accidental find is an excellent motif for thinking about the role of social science in public dialogue on science and technology.

Discussion

Speaking as someone working within the research council, Gillian Rendle identified two different ways in which public engagement takes shape. There is public dialogue that feeds into way research councils

make decision and there is also talking about this as a cultural change within the academic community, in particular the mindset of the scientists involved. It is very difficult to measure any kind of cultural change, but Gillian asked if the speakers considered that as an outcome of their involvement and if they had any thoughts on measuring it. Sarah Parry responded with examples of how her research had sparked a series of ongoing and fruitful relationships with biomedical scientists, which has resulted in mutual respect for each other's work and a willingness on behalf of scientists to integrate social concerns into their work. Sarah Cunningham-Burley added that from the beginning the project asked scientists to reflect upon their involvement in terms of meeting their expectations. She wanted to build a reflexive process into the research design.

Eric Jensen asked if all methods used throughout the project had a didactic component. Sarah Cunningham-Burley thought this an excellent question. Inevitably, all public engagement has some didactic aspects. Most of the research methods involved some didactic aspects with the exception of small discussion groups.

Sarah Franklin asked the speakers to reflect upon the role of traditional social theory in how results are interpreted. Public engagement and public participation are new and contemporary ways to stage events and collect data but the basic questions, for example about health and about bodily substances resonate with the history of social theory from Richard Titmuss to Judith Swazey and even Talcott Parsons or Herbert Hyman. Models of engagement have a very long history in social science of asking questions similar to the ones the speakers ask in their research projects. Sarah Cunningham-Burley responded to this comment saying that the research design, whilst sociologically informed, was not dense with theory. Theoretical work was usually applied to their publication output.

Janet Lewis queried Kevin's use of the word 'role' and wondered if basic stance was more appropriate. She was also interested in the way Kevin used terms like midwife, handmaid and servant as synonyms for helping hand. These are all typically gendered terms signifying inferiority and submission when compared to the hard masculinity of ironist, rebel and reformer. She asked if he could rethink the language he has employed. Kevin replied that the gendered connotations of these terms was the subject of discussion in Zürich. Kevin added that it is possibly precisely these connotations that render these terms appropriate in this instance. ■

Sarah Cunningham-Burley

Sarah Cunningham-Burley is Professor of Medical and Family Sociology at the University of Edinburgh, where she has worked since 1990. She is based in the Division of Community Health Sciences (Public Health Sciences section) within the College of Medicine and Veterinary Medicine and also at the Centre for Research on Families and Relationships (CRFR), where she is one of its co-directors. She has been conducting research in the sociology of health and illness and family sociology for many years, mostly employing qualitative methods. Her research interests include sociological aspects of genetics and health; public engagement in science; young people, children and health; families, relationships and health. She is also involved in teaching undergraduate medical students and postgraduate public health research students; she also supervises several PhD students. She is a member of the Human Genetics Commission, the UK Government's advisory body on new developments in human genetics and associated social, legal and ethical issues. She thoroughly enjoys the dialogue with a range of different people that is part and parcel of sociological research, especially when it involves interviews and discussion groups. The Social Dynamics of Public Engagement in Stem Cell Research provides a unique opportunity to create meaningful dialogue across different groups about these important developments. Sarah is also involved in public consultation research with Generation Scotland, a genetic database initiative involving population studies.

Sarah Parry

After completing a PhD in the Science Studies Unit, in 2003 I joined the Research Centre for the Social Sciences as a lecturer in Sociology and an Innogen associate (all University of Edinburgh). My doctoral research focussed on the UK public debates in stem cell research (SCR) and is underpinned by an academic background in sociology, cultural studies and science and technology studies. My PhD explored: (i) the Parliamentary debates that led to changes to the Human Fertilisation and Embryology Act (ii) views of scientists working in the field of SCR, (iii) people involved in fertility treatments who may be asked to donate embryos for this area, and (iv) patient support groups of people who may benefit from this area of research. This work sought to explore the multiple and competing constructions associated with a new and controversial area of science and technology. Funded under the ESRC's programme, 'Stem Cell Research: The Economic and Social Agenda', I continue to develop my research in this area with a three year project: 'The Social Dynamics of Public Engagement in Stem Cell Research'. This project has two aims: first, to explore the views of a wide range of publics and experts in Scotland and, second, to develop engagement methods for establishing a dialogue between different groups. It is through this experience of both doing and studying public engagement that my interest in the role of the social scientist has grown.

Session five

‘Opening up’ social science and public dialogue: panel discussion

David Atkins, Food Standards Agency (FSA)

David talked about the need to professionalise dialogue practices. The FSA recently launched its Social Science Research Committee (SSRC) with the aim of integrating social science into the work of the FSA by issuing independent expert advice and challenge from a range of academics and feeding it into the policy making process. The FSA promotes food safety and healthy eating for all. Whilst that might be easy to say, David made the point that it is difficult to deliver. The FSA is driven by evidence and robust analysis, which is then developed into policy options. The FSA is an autonomous body that publishes advice to all stakeholders for Ministers to consider. Advice is primarily delivered through information gathering, risk assessment, and risk management, all done in consultation with stakeholders. David showed a diagram of how this process currently operates in relation to science governance. He emphasised that there is no simple formula for producing a piece of policy advice, but every effort is made to make the process transparent. His major concern is achieving greater consistency in the FSA’s engagements with its stakeholders, and this is an area he thought social scientists could make a particularly valuable contribution.

‘We’ve certainly been praised by many for the fact that we do it often and we actively seek input, but I’m increasingly aware of the need for help and advice in professionalising that approach.’

The social sciences could play an important role in creating guidelines for best practice in public dialogue and stakeholder engagement to achieve better policy. David acknowledged that, compared to other sciences, a gap still exists in the contribution of social science to the work of the FSA. The new SSRC intends to address this issue by widening the FSA’s evidence base by drawing on economics and operational research. It will also provide advice on how to gather research evidence and incorporate it into the FSA’s policies. The SSRC will also audit dialogue and engagement practices with the public and stakeholders with a view to establishing best practice guidelines and improving the overall job of the FSA.

Melanie Smallman, Think Lab

Melanie began her presentation with something of a confession, admitting that she had been trained in the deficit model of science communication. Over the years, however, she has had to readdress the foundations of her training by moving towards public dialogue and placing value on lay forms of knowledge. She is now considered a specialist practitioner of public dialogue in the area of science policy making and is an advisor to the Sciencewise Expert Resource Centre (ERC).

Melanie’s professional experiences have placed her squarely in the middle ground between academics and policy makers. In her presentation she talked about her role as a professional dialogue practitioner trying to integrate science and society effectively. Melanie drew upon two experiences in order to illustrate what she called ‘*a journey or an evolution*’ towards understanding the public and bringing them into dialogue with institutions, emphasising how different organisations are on different places on that journey and therefore need different ‘styles’ of dialogue. Her first example concerned an esteemed UK science institution which she referred to as the ‘science club’. In 2003, this institution decided it wanted to move away from the deficit model of science communication and engage with the public. It commissioned leading academics to organise and run a series of dialogue events on the issue of genetic modification. Melanie recounted how making the dialogue happen was exceptionally challenging, mainly because the academics’ objectives and understanding of what dialogue meant were significantly different to those of the institution and there was little incentive on either side to breach the divide. In the past, the institution had hosted large-scale events that attracted a lot of media attention. Breaking with this tradition, the academics involved chose to host the dialogue events in community centres throughout the country, which needless to say didn’t warrant media attention and took the institution significantly outside their comfort zone.

‘Suddenly [the science club] were confronted in their first public dialogue meeting with a group of individuals who were from a regeneration project in Glasgow. They had never met people who didn’t have jobs, and this was a really shocking experience for them’

The academics decided to adopt what they conceived as a more democratic approach, allowing participants to lead the debate and thus preventing the institution from dominating the issues at stake. It was some time before the group touched upon the issue of GM technology and while this ‘open’ approach was well recognised in academic circles, it was an expensive process and made the institution question whether they were using their money wisely.

At the end of the programme, the process did indeed produce some interesting results that the institution was pleased to present to the government. And while it had been a ‘Rolls Royce’ academic model of dialogue, by failing to take account of the needs and ways of working of the commissioning institution, the process had been reasonably traumatic and failed to leave a positive lasting change on the organisation itself. With any form of public engagement there needs to be a good understanding of the aims of other stakeholders and commissioners and willingness to compromise – just because it’s not the purest model shouldn’t make it wrong.

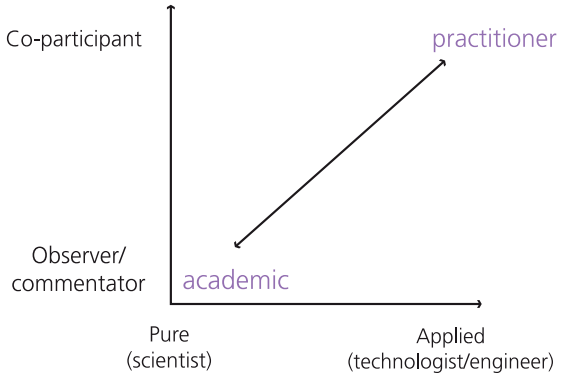
In contrast to this story, Melanie gave a positive example of public dialogue. She was recently involved in a project commissioned by the Academy for the Medical Sciences about brain science, addition and drugs. The AMS was asked by the government to report on an issue raised in its Foresight Report *Drugs Futures 2025*, concerning future research into and use of drugs – recreational, pharmaceutical and medicinal. In order to understand public views and attitudes, the Academy commissioned a group of experts to conduct public engagement events. A consortium of academics, practitioners and policy makers worked in partnership with the Academy of Medical Sciences to develop the public engagement dimension of the project. Compared to the ‘Science Club’s’ public engagement exercise, this team of experts was much more mixed and receptive to making compromises. They took the institution by the hand and guided them through the process. Melanie explained how ‘You could visibly see the people from the Academy growing in confidence and comfort and getting more involved with the process. It was a brilliant project and everybody involved felt extremely fulfilled and the public dialogue element formed the core thread through to submitting the report to government’.

Melanie finished her commentary by saying that both examples demonstrate the steep learning curve academics, practitioners and institution have been on in developing robust and beneficial forms of public engagement. She also recognised that '*there's a bit more understanding that we need the right tools for the job*.'

Roland Jackson, The BA

Roland opened by noting that the British Association for the Advancement of Science (The BA) has been instrumental in promoting the practice of public engagement for a variety of purposes, including science policy making. He then described a typology of social scientists. As a natural scientist by training he modelled his typology on differences between pure and applied research. He then went onto to question the extent to which the social sciences offer predictive knowledge and expressed concerns about the accessibility and practicality of academic research for dialogue practitioners.

A topology of social scientists



When looking at the social sciences, Roland perceived two types of academic: the pure social scientist interested in theoretical and conceptual issues, and the applied practitioner interested in participation and co-creation. These two personae occupy the opposite ends of an axis upon which social science could be plotted. Recalling Kevin's presentation earlier, Roland mused that ironists could be considered pure social scientists whereas reformers and rebels could perhaps be placed further along the spectrum. His chart was only one way to represent social science, but it demonstrated that the greater the distance between points on the axes the more difficult it was to establish communication and interaction between the two types of social scientist. A happy ending would be bringing them closer together.

Roland's second point concerned the extent to which the social sciences are predictive as opposed to descriptive and explanatory. Considering the natural sciences, Roland said, '*the great power of the natural sciences, and the big explanatory theories in natural science, is that they are descriptive and explanatory on the one level, but they're also highly predictive and testable on another and that is what gives them their power*'. The reason Roland raised the idea of social science providing predictive information was because he saw it as useful for optimising public engagement. As discussed throughout the day, public engagement is multi-dimensional and in some respects amorphous because of the difficulties in determining expectations and outcomes. However, his concern was with the amount of useful, practically oriented material available to him as a practitioner. In most of the literature, and he referred to the ESRC's science and society series as an example, he found that summaries often concentrated on findings and observations particular to the study, rather than provide practical information for practitioners. He was also concerned with the protracted time scale of social science research, which often conflicted with his own time scale. Therefore, he found it difficult finding the right combination of academic researchers and practitioners who could engage and tease out issues simultaneously. If the ESRC was to run another programme dedicated to science and society, his suggestion was to incorporate public dialogue practitioners from the start as opposed to having them positioned as end users of the information.

His main concern was with the theoretical aspects of academic research around public engagement. After having read through several papers by key authors like Brian Wynne and Bill Durodie he said, '*I hid myself in a room with a cold towel over my head for about ten hours. There are enormous amounts of ontology, hermeneutics, epistemology, and goodness knows what; and yet the take home message from these papers is important for practitioners thinking about the way in which they should structure their activities. I would dearly love for some really digestible key points from papers like these to be readily accessible and certainly published with the papers, but ideally disseminated more actively. With science and the public there is more of an onus on the social science researchers to engage with practitioners than there is in the reverse. I know it's a two way street, but I think that there is more responsibility on the researchers than there is the practitioners*.' And in conclusion, Roland made a plea to the social scientists present, '*I feel I'm in the hard to reach community for social science academics and I'd like them to reach out to me but with a lot of really great practical stuff as well as theoretical*'.

Discussion

Sarah Franklin commented on the value of employing research methods as hypotheses in qualitative social science. Sarah said that it is inevitable that research begins with a number of assumptions and through data collection there emerges an understanding of what these assumptions mean. The advantage of social science is not to guess, and to resist guessing by putting the method in place, get the data and see what it says. The real advantage of qualitative social science is generating data. A good project is one that tells you something you would never have guessed. A survey, on the other hand, asks people questions that are preferably easy to answer. If not then the response rate is generally low and so the ratio between how much there is to find out and how much is needed to know to pursue it differs across methods. With qualitative data, when there is a method instead of a hypothesis, the whole beauty of it is the potential to find out that not only were the assumptions wrong, but this opens up the possibility of generating questions that really need to be asked.

Roland Jackson asked Sarah about the extent that social sciences are predictive. Sarah answered by referring to cutting edge scientific

research, which is not predictive (in fact the more cutting edge it is, the more surprises it holds) because scientists ask big, exploratory questions with little restraint. The predictive work is done when enough information is known to ask questions within a very tight set of parameters. The equivalent in the social sciences is economics. Economists ask questions within rigid and organised data sets where the answer can be predictive. Sarah also pointed out that rather than thinking in terms of prediction, social science, alongside natural science, is good at modelling. She referred to Hilary Graham's factor finding research as an example, which has delivered insight into how behaviour might change in relation to health vis-à-vis socio-economic status. This disaggregates and remodels the problem, which is not necessarily predictive, but does help to identify factors that are going to turn the volume up or down on a particular goal.

There was then some discussion about the framing of issues that make certain responses and concerns predictive. The GM food controversy was cited as a good example, whereby the backlash of public concern was in some senses predictable given the history of food scares in the UK. ■

David Atkins

Dr David Atkins is Head of the Chief Scientist Team at the Food Standards Agency. David studied biological chemistry at Manchester University. Postgraduate research into the biological activity of airborne lead was followed by a postdoctoral fellowship in carbohydrate chemistry at the University of Birmingham. When he first joined MAFF, he became part of a team of scientists whose job was to advise the policy makers and Ministers. David always felt uncomfortable with the largely artificial divide between scientists and policy makers and welcomed the changes that brought about a truly integrated structure as the precursor to the establishment of the Food Standards Agency. During this period of transition, he set up a team to define and deliver the FSA's policy on pesticides and veterinary drug residues in food. His career as a scientist/policy maker has covered a wide range of food safety, quality and choice issues. Although becoming a traditional 'expert' in a number of these areas, his heart has always been in the broader business of science communication and engaging with stakeholders to develop understanding and trust. Before heading the FSA's newly created Chief Scientist Team, he worked with the Agency's independent Board, colleagues and stakeholders to lead the development of the Agency's latest Strategic Plan for 2005-2010. Since 1997, David's career has developed through partnership and job-sharing with Dr Julie Norman. They jointly head the Chief Scientist Team and have 2 children.

Roland Jackson

Roland Jackson took up the post of Chief Executive of the BA (British Association for the Advancement of Science) in September 2002. He was educated at Oxford University, obtaining a degree in biochemistry in 1976, a doctorate in molecular immunology in 1979 and a postgraduate certificate in education in 1980. He taught science in secondary schools in Newmarket and Bristol for nine years, ultimately as Head of Science at Backwell School, Bristol. During this period and subsequently he contributed to several national curriculum development programmes in science education, including SATIS (Science and Technology in Society), Nuffield Coordinated Science and Salters' Advanced Chemistry. From 1989 to 1993 he was Education Adviser for the international chemical company ICI, managing the corporate programmes to support science education. He joined the Science Museum, London, in 1993 initially as Head of Education. In this and related roles he was responsible for public and schools programmes, for the interactive or 'hands on' galleries, and for initiatives in the use of the internet and website. He was appointed acting Head of Museum from 2001-02.

Melanie Smallman

Melanie Smallman is founder and Director of Think-Lab, the UK's first communications practice to specialise in supporting science. In this role, she has worked on a number of projects that have helped involve the public in policymaking, including Small Talk, which looked at public attitudes to nanotechnology, Science Horizons and DrugsFutures. Prior to setting up Think-Lab in 1999, Melanie looked after media and public relations for a variety of scientific organisations including the Wellcome Trust and the Science Museum. Since 2003 she has been communications adviser to Defra's Cheif Scientific Adviser and is currently part of the team setting up the Expert Resource Centre (ERC) for the Department of Innovation, Universities and Skills. The ERC aims to help policy makers commission and use public dialogue to inform policy decisions in emerging areas of science and technology. In particular, Melanie is leading their work on engaging the media in dialogue. Melanie is an Honorary Fellow in Science and Technology Studies at University College London and is a former Labour councillor and parliamentary candidate.

Session six

Closing reflections

Phil Macnaghten, Durham University

A few reflections using the case of emerging nanotechnologies

Phil began by commenting on the hugely productive dialogue taking shape throughout the workshop between constituencies that don't interact sufficiently. Phil has been involved in a project about public engagement and nanotechnology and raised four points he found to be important when considering how new technologies are framed at particular historical junctures.

First, Phil asked how framings of public engagement in terms of the risk/benefits of new technologies might limit conversations. Secondly, he emphasised the substance of public engagement rather than the process. Science and technology are enormous shaping forces and Phil questioned whether there is sufficient public scrutiny of the dilemmas this creates. Thirdly, he urged a need for methodological innovation and a demonstration of greater care over the inclusion of marginal voices. But he cautioned against un-reflexively employing a method because all methodologically approaches, in and of themselves, assume certain kinds of subjects and therefore impose limitations. In other words, is it possible to represent different kinds of publics whilst going beyond the methodological individualism exemplified by something like the survey? Fourthly, Phil asked that social scientists be wary of reifying considerations of process and providing formats for best practices.

To illustrate the first of his points about framing, Phil drew upon the ways in which the UK government has promoted public engagement around nanotechnology. In particular, Phil presented a letter from ministers Ian Pearson and Phil Willis addressed to the UK Nanotechnology Stakeholder Forum, which exemplifies the debate around public dialogue.

In their letter, nanotechnology is presented as being at a relative early stage of development and there is need to involve the public early on. There is a danger of over hyping the potential and, equally, there is a possibility of overlooking the potential risks and benefits. In order to materialise the benefits the government, policymakers and stakeholders need to be realistic, non-biased and balanced in their judgements and actions. At the same time they need to recognise the uncertainties of developing this technology. Analysing this letter, Phil, remarked on the tendency to foreground communication as key to gaining the consent of the public to develop this technology. In order establish a balanced form of governance the two ministers advocated effective communication with the public about both the potential risks and benefits of the nanotechnology (although Phil did point out that the benefits tend to be thought out in economic terms).

As this letter demonstrated there is a prescribed role for science communication moving away from the traditional model of public understanding of science. Today, the role of the science communicator has changed from simply educating to public to studying public opinion with the aim of anticipating future concerns and fears. This knowledge is then fed back into the innovation process. Science communicators are also expected to elicit public forms of knowledge relevant to risk assessment and, overall, make science more responsive to public concerns and aspirations. Their role does not involve interpreting and reporting public concerns that are not relevant to policy making.

For the remainder of his presentation Phil focussed on the contribution of social science by identifying what sort of views and beliefs are important to policy makers and, more significantly, what aren't. Knowing what views professional science communicators consider irrelevant of the innovation processes has important analytical worth for critical social scientists hoping to glimpse what the public thinks and its relationship to wider political processes. There is enormous debate about the potential harms nanotechnology could have on the environment and health. It is difficult to answer the question: is it safe? This uncertainty creates a dilemma of governance that institutions are grappling with. The Royal Commission for Environment and Pollution (RCEP) recently asked if governing nanotechnology should take the form of a risk based solution, whereby the technology is controlled only when there are quantified reasons for concern; or a precautionary solution, whereby novel materials are not permitted until they are demonstrated to be safe beyond any reasonable doubt. These are two standard ways in which risk governance is conceived and developed. They are hugely limiting because a risk based solution could result in hazardous consequences as opposed to the precautionary principle that might prevent harm but stifle innovation. These limitations open a third way where the debate is subject to public scrutiny. Phil refers to this as an 'adaptive governance regime' capable of monitoring emerging technologies as they are being developed into products and processes. This form of governance is being thought through by UK institutions in a global context. Phil however, asked if we are ready for this? Under what conditions is a robust and adaptive form of governance established? What would it mean in terms of generic public expectations on safety? Will it meet the conditions of required public confidence in soft law and, particularly, in corporate social responsibility as it shifts from state to non-state actors?

Phil used empirical evidence gathered during his case study to show how these concerns played out amongst a group of women from North London. They showed excitement and enthusiasm when initially presented with new anti-ageing creams developed using nanotechnology. But after going and away learning about nanotechnology they changed their minds and appeared even scared. At the next discussion group a week later they made comments like, 'I wouldn't touch it with a barge pole even if you paid me to put that stuff on my face now. It's so frightening' and were concerned 'there is too money in it'. Phil asks whether we should consider the current interest in promoting public dialogue to be about risk governance or innovation governance. Dialogue is not only taking place in relation to perceptions of risk, it is also taking place on innovation-oriented science. Brian Wynne has been vocal on this point by warning that public dialogue in its current form is providing an acquiescent public for the commercial exploitation of scientific knowledge. A concern that as a social scientist Phil is keen to critically explore.

In the context of the case study on upstream engagement in nanotechnology, Phil aims to nurture a social space enabling a robust imagination of nanotechnology futures where the factors that are likely to mediate its reception can be analysed and understood. Discussion of

potential issues arising from nanotechnology is set by the participants themselves as opposed to being imposed by official vocabularies. In particular, the study is interested in understanding the narrative resources through which people are able to develop their thinking around nanotechnology.

'We're trying to be sensitive as it were to the dynamics involved in the ways in which science and technology co-produce society'.

Given the intense shaping capacity of new science and technology, and the far-reaching ethical and societal dilemmas they pose, the aim of the study is to develop innovative methodologies capable of opening up and rendering more publicly accountable particular versions of society embedded in research and development trajectories. There is a need to understand the narrative 'fault lines' through which people develop collective and shared accounts of what is 'at stake' in emerging nanotechnologies.

Phil presented five narratives that emerged through the dialogue events he has been involved in. This first narrative he called 'left in the dark' where the historical experiences of being left out of big decisions around science and technology dominated discussions. This narrative also related to the idea that science is moving vastly forward whilst society is losing its breath to keep up. The second narrative revolved around the notion of 'bodily invasion'. The memory of genetically modified foods was dragged up as an example of the body unknowingly absorbing something potentially harmful. This narrative explained fear about the smallness and intelligence of objects that exist on the nano-scale, which could violate body's boundaries in ways unknown and without anyone knowing until it was too late. The third 'Promethean' narrative was driven by the fear that scientists are tinkering with natural processes and provoking nature's revenge. This narrative resonated with Ulrich Beck's risk society thesis whereby intervention at fundamental levels accelerated the evolution of disasters from which there was little hope of return. Fourthly, the 'artificialist' narrative drew on the idea that nanotechnology will turn human beings into robots and nobody knows what the long term effects are. Lastly, the 'technology out of control' narrative was about technological determinism. Technology unto itself could wreak havoc if not controlled properly. The study treated these narratives as cultural repertoires and resources through which concerns are articulated and mobilised. Phil thought that these concerns will not fade away easily, but running alongside these apocalyptic visions were narratives of hope about the possibilities of nanotechnology to overcome problems facing society.

Concluding his presentation, Phil made a number of (modest) suggestions that involved being more reflexive about the ways in which issues around new technologies are framed by institutions and by members of the public. He also called for a move away from methodological individualism that dominates public opinion forecasting, arguing that sensitivity should be shown towards how the public structure their views and perspectives. On a final note, Phil said that a key determinant in governing new technologies will be the ability of the government and corporations to provide leadership, authority, effective regulation and adequate control in the face of a scientific enterprise whose purposes and priorities are increasingly questioned. ■

Phil Macnaghten

Phil Macnaghten is Professor of Geography in the Institute for Hazard and Risk Research (IHRR) at Durham University. He holds a degree in Psychology (1987, Southampton) and a PhD in Social Psychology (1991, Exeter). He is a Honorary Professor in the Institute for Advanced Studies at Lancaster University, a Fellow of the Royal Society of Arts, and a Demos Associate. He has published widely on the social science of technology and the environment and is author, with John Urry, of Contested Natures (London; Sage, 1998) and Bodies of Nature. His current research interests are on the governance of emerging technologies. Professor Macnaghten's intellectual energy has focused on the cultural dimensions of environmental and innovation policy and their intersection with everyday practice. He has worked closely with policy organisations, NGOs and think-tanks and is currently leading a European project on Deepening Ethical Engagement and Participation in Emerging Nanotechnologies (DEEPEN). Given the intense shaping capacity of new science and technology, and the far-reaching ethical and societal dilemmas they pose, the aim is to develop innovative methodologies that can open up and render more publicly accountable the particular versions of society embedded in science and R&D trajectories.

BIOS (Centre for the Study of Bioscience, Biomedicine, Biotechnology and Society)

The London School of Economics and Political Science
Houghton Street
London
WC2A 2AE

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