# Chapter 12
# Campaigns and Coalitions: Governance by Media

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## 12.1 Introduction

In this chapter, I discuss the establishment of the Science Media Centre in 2002, "housed within the Royal Institution but independent from it" as an instantiation of the concerns that UK scientists have with the mass media as the primary means for transmitting the right message about science to the public. I suggest that there is an implicit tension – even a contradiction – built into the organisation's mission, although I would certainly not contend that this is a wilful or malicious contradiction. I also want to suggest that some of the most "successful" interventions of the Science Media Centre have resulted from cooperation with scientists predisposed to particular modes of media engagement because of contingent histories. I refer in particular to scientists involved with cloning and stem cell science who have a significant track record of engaging with public debate about embryo research.

In this chapter, I comment on a number of accounts of the Science Media Centre's foundation, mission and function, and suggest that the aforementioned contradictions impact on the way in which it functions, and may – over time – exacerbate the issues it was founded to tackle. I do so from the perspective of a researcher with a critical orientation to issues around the public understanding of science. That is to say that I am interested in the democratic governance of science, and how it might be affected by the science/media relationship, rather than in the rectification of any putative deficit of scientific knowledge. I am interested in considering science "from the citizen's side rather than from that of the scientific establishment" (Irwin 1995: 5), and as such, I am interested at least as much in how citizens or the public are framed, as in how science is framed in media representations.

My concern is that, in its contribution to the setting of media agendas and to the framing of news stories, the Science Media Centre (SMC) potentially obfuscates the distinctions between scientific knowledge, scientific practice and science

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governance to which Wynne called attention in one founding moment for Public Understanding of Science in the UK (Wynne 1991, see also Wynne 1992). By conflating anxieties with regard to perceived knowledge and/or trust deficits, models of rational or irrational publics for science are constructed in the process of defining the communication task. This has consequences for both the messages the SMC produces and the publics or audiences to whom they are addressed. Of course, I would not want to suggest that scientific knowledge, practice and governance are entirely discrete domains, but I would argue that some attempt must be made to hold them apart in order for "the public" – and, indeed, policymakers – to be constituted as meaningful actors in relation to science.

Fiona Fox (Chapter 13) locates the origins of the SMC in the House of Lords (2000) Select Committee Inquiry into Science and Technology and the broader context of the BSE crisis. Science studies scholars might point to a more extended context and frame the issues slightly differently (Irwin 2006; Miller 2001).[1] In the chapter that follows I will expand on this suggestion and explore how that shift in context might suggest that there is a fundamental mismatch between the definition of the problem and the proposed solution to the "decline of trust in science". I do so speculatively, following Donna Haraway's strategy of retelling origin stories in order to disrupt them (Haraway 1984).

The SMC is undoubtedly very effective in its press relations, but I want to consider whether this very effectiveness allays or exacerbates the concerns it was set up to address. In asking these questions, I will note that the success story about which Fiona Fox writes in this collection – the media coverage of debates about legislating to permit hybrid embryo research under the 2008 Human Fertilisation and Embryology Act – was contingent on the prior existence of a strong and vocal community of scientists and clinicians keen to secure their continued license to practice, and with a successful track record of so doing. In preparing this chapter, I have focused on the public and mediated accounts of the SMC's mission, as well as evidence of its activities that can be inferred from comparisons of the briefings and press releases published on its website with science news stories in UK broadsheets and tabloids. In addition to Fox's essay, previously published in *Communicating Biological Sciences*, I also draw on material published on the SMC's website and the Third Report of the House of Lords Select Committee on Science and Technology, as well as my own research on the mediation of, and public consultation around, embryo science conducted since 2004.[2]

[1] Indeed Walter Bodmer, although taking issue with some of the critiques cited in this chapter, has recently reflected on a quarter century of Public Understanding of Science work in the UK (Bodmer 2010).

[2] This chapter emerges from research conducted between 2004 and 2010, at the ESRC Centre for Economic and Social Aspects of Genomics (Cesagen) on media representations of genomics, particularly at the intersection of genomics and assisted reproductive technologies. The research began with the assembly of an archive of UK press news coverage of genetic science in 2004. This time period including a number of news events relating to embryo research to which the SMC co-ordinated media responses. This initial intensive sampling has been supplemented by purposive

## 12.2 Engaging the Origin Story of the Science Media Centre

Fox accounts for the foundation of the Science Media Centre as a response to the Third Report of the House of Lords Select Committee on Science and Technology (2000).[3] However, the evidence that was collected for the report and its terms of reference may be more expansively understood as further steps in an ongoing Public Understanding of Science movement, rather than the start of something entirely novel. As Steve Miller (2001: 115) notes:

> It is always dangerous to date the start of a historical process. But for the recent movement for public understanding of science within the United Kingdom, the publication by the Royal Society, in 1985, of a report entitled 'The Public Understanding of Science' – known as the Bodmer Report after the chair of the working group, Sir Walter Bodmer – is a reasonable place to begin a short survey of recent public understanding of science activity.

The publication of the Bodmer Report and the subsequent establishment of the Committee for the Public Understanding of Science (CoPUS)[4] does indeed seem to be a salient marker in relation to UK attitudes to the science/society relationship. Social scientists in the UK might further point to the Economic and Social Research Council's funding of multiple social science research projects in this area beginning in 1988, or the establishment of the journal *Public Understanding of Science* in 1992.[5] Unlike the 2000 Report, the Bodmer Report was initiated from within the UK's scientific learned societies and one interpretation of the later Inquiry might be that its production from within the Houses of Parliament was an index of the success of the initiatives sparked by Bodmer, such that the importance of the Public Understanding of Science is now on the agenda of policymakers, one of the five "overlapping functional categories" of the public defined in the Bodmer Report (The Royal Society 1985: 7). In a paper delivered at a conference about the Royal Society and science in the twentieth century, Sir Walter Bodmer's (2010) interpretation was somewhat less sanguine, viewing the Third Report as at least an implicit critique of his earlier work. He also indicated that he believed that social science scholars in the PUS field had misunderstood or misrepresented the thrust of his working group's interventions which he summarised as being "directed at the need for scientists to

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sampling of subsequent key news events in the area, including those associated with the Hwang scandal and those related to the reform of the Human Fertilisation and Embryology Act (Haran 2007; Haran and Kitzinger 2009).

[3] The Third Report is sometimes known briefly as "Science and Society", but for clarity in this chapter I will refer to is as The Third Report.

[4] The Committee for the Public Understanding of Science, formed on the recommendation of the Bodmer Report, had representation from each of the three bodies of the Royal Society, the BA (now known as the British Science Association), and the Royal Institution, thanks in part to the then President of the Royal Society, George Porter who was also – uniquely – President of the BA and Director of the RI. (See Bodmer 2010 for one account of the formation of COPUS).

[5] Bodmer (2010) points out that the funding of PUS research through the UK Research Councils was actually one of the recommendations of his 1985 Report.

learn how to communicate with the general public in all its guises, and to consider it a duty to do so" (Bodmer 2010: 1).

A number of scholars in the social studies of science and in the field of Public Understanding of Science (see McNeil (2012) for an account of how these fields do and do not intersect) have indeed suggested that the House of Lords Third Report (2000) can be interpreted in relation to the Bodmer Report and the successes and failures of CoPUS[6] (for example, Miller 2001). Others have noted that the language of Science and Technology Studies, albeit in an attenuated form, has been taken up as the language of science policy (for example, Irwin 2006). They note that concern for the public's cognitive deficit in relation to science has, to a variable extent, been substituted by a concern for the public's trust deficit in relation to science. Writing shortly after the publication of the Third Report, Miller (2001: 117) is keen to witness the dawn of a new age for Public Understanding of Science that he sees embodied in the report:

> In contrast to Bodmer, bemoaning the level of public ignorance and the fickle nature of the media is almost totally absent. Instead, the report is peppered with calls for dialogue, discussion and debate. A new era, which perhaps really opened when Science Minister Lord Sainsbury pronounced the 'demise of the deficit model' at the 1999 meeting of the BAAS,[7] is being ushered in. So what will this 3D – dialogue, discussion, and debate – world of newPUS (*sic*) look like?

Miller was considering the 2000 report in its entirety, and not simply the section on science and the media, but it is interesting to consider the origin stories of the Science Media Centre in the context of this apparent new age for Public Understanding of Science, or what Irwin (2006) calls the "new" scientific governance.

## 12.3 Science Media Centre Origin Stories

There are three key versions of the origin story of the Science Media Centre to which I will refer in this chapter. One is embodied in the Science Media Centre Consultation Report from March 2002.[8] The second forms part of an earlier version of Fiona Fox's chapter in this volume (Fox 2009b). The third is the aforementioned House of Lords Select Committee on Science and Technology's Third Report (2000) which is heavily referenced in the SMC Consultation Report. I will refer mainly to the first two versions, noting the ways in which they refer to the third as justification or rationale.

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[6] The acronym is sometimes rendered as CoPUS (see, e.g., Miller 2001) and sometimes COPUS (see, e.g., Bodmer 2010).

[7] Miller uses the acronym BAAS for the British Association for the Advancement of Science, although it was generally known – somewhat confusingly – as the BA. The organisation was relaunched in January 2009 as the British Science Association.

[8] Report downloaded from http://www.sciencemediacentre.org/consultation.htm 19/09/05 Now available at http://www.sciencemediacentre.org/pages/publications/last accessed on 30 November 2010.

The Science Media Centre's Consultation Report is still available on their website, although it has a less prominent location than earlier in the organisation's life. The Introduction to the report claims that it

> seeks to show how the service that the SMC will offer has emerged from a general consensus among key stakeholders as to where the real problem lies and how the SMC can best direct resources to make a positive contribution to media coverage of science (SMC 2002: 2).

The stakeholders identified in the report were limited to scientists, journalists, press relations professionals and "politicians and policy makers with an interest in science". This suggests that rather than providing information on science issues that could be weighed up in democratic debate, the media relations task of the SMC is understood as advocating on behalf of stakeholders. Alternatively, a more generous reading would be that the interests of some key stakeholders are weighed in relation to each other, but the stakeholders are limited to scientists, policymakers and science communications professionals. This is hardly an audience, consumer, or citizen focused dialogic process, but rather a knowledge-producer, and indeed a science-centred focus that seems to view public understanding as just one phase in governance by, rather than governance of, science. Indeed, the consultation report concludes by describing the SMC's vision as: "Good public policy decisions on science based on a more balanced, rational, accurate debate within the news media about science issues" (SMC 2002: 23). It is really not clear from such a vision where the public might come in, except in a limited sense as eavesdroppers on a conversation between scientists and policymakers mediated by press officers and journalists. So, those chapters of the *Third Report* which embodied a more inclusive voice – such as Chapter 5 "Engaging the Public" which refers to "a new humility on the part of science in the face of public attitudes, and a new assertiveness on the part of the public" – are set aside for the scientistic voice which attributes rationality and accuracy to the experts. In his own analysis of the report, Irwin references its oscillation between Hagendijk's two voices of inclusiveness and scientism and notes the emphasis in the report on the "presumption of openness as a means to secure science's 'license to practice'" (Irwin 2006: 306). The degree to which the leadership provided by Baroness Greenfield, then Director of the Royal Institution, influenced the SMC in favour of the scientistic rather than the inclusive voice is open to question. However, the incorporation of the following statement in the consultation report seems to be indicative of the imagined relationship between science and society that is at the root of the terms of reference arrived at for the SMC:

> In the twenty-first century science is going to be at the centre of all the things we most cherish: food, health, reproduction, education, business, communications and so on. In order to meet the challenges and minimise the problems, the public need the scientific literacy to engage with all the major scientific developments in these areas (SMC 2002: 2).

So the much critiqued deficit model of the Public Understanding of Science is still at the centre of this imaginary, despite the contributions to the consultation process of "a significant minority [who] saw the growth of public questioning of scientific expertise as a largely positive development and a step towards the widely

held goal of 'democratising science'" (SMC 2002: 3). This "significant minority" included social sciences and humanities scholars.

The *Third Report* had enjoined scientists to learn to work with the media, and this is interpreted to a large degree in the consultation document as understanding the hard news agenda. The message that scientists took from journalists' input into the process was that "what appears on the news pages of The Times, Telegraph, Guardian and Daily Mail is what appears in MP's mailbags" (SMC 2002: 5). There is little suggestion in this overview of the consultation process that journalists may have vested interests in talking up the power and reach of their profession and of media outlets. Science correspondents are represented in this report as extremely bullish about media coverage of science. They think that there are plenty of good stories available, they appear to share with scientists a mission to inform and educate those with a deficit in scientific knowledge, and they urge the SMC to focus more on the news correspondents. Tim Radford, then Science Editor of *The Guardian*, is quoted in both the *Third Report* and the *Science Media Centre Consultation Report* giving support to such a perspective. However, post-retirement he gives a slightly different account of the role of science journalists:

> Newspapers follow the same imperative [as Scheherazade]: the day the readers stop reading, they stop buying, and the newspaper dies. So even the science stories in newspapers are just that, stories. They are drawn from the world of science. They are told for serious purpose. But they are told so as to give pleasure. It is not our business to advance the public education in science, except by the way, and as a kind of happy accident. It is our business to be read [...] (Radford 2009: 151–152).

Nonetheless, in the SMC consultation report, science correspondents represent themselves as, and are represented by the SMC, as being extremely well informed and well networked into science and it is the role of more generalist journalists that is emphasised as requiring attention. According to the report:

> The SMC is being lobbied to position itself in the arena of science as news, science as controversy and in areas of public concern about science. This is perceived as the area in which there are the most problems, the most potential, and because to date (*sic*) no other initiative has this as its primary focus (SMC 2002: 11).

The Consultation Report outlines how the SMC intends to respond to this lobbying with what they call pro-active reaction to the news agenda:

> The centre will react to the media agenda by pro-actively promoting comment, interviews and articles from scientists and others when science hits the headlines.
>
> With the help of the Science Advisory Panel and the horizon scanning sessions the SMC will endeavour to anticipate and prepare for the next major news story or controversy in science and be ready for a swift response (lining up interviewees, articles, comments on several subject areas in advance, etc.) (SMC 2002: 12).

If the SMC is endeavouring to position itself in areas of public concern about science, public concerns are notably absent from this account of the SMC's strategy. One might wonder if public concerns are implicitly referenced as something which must be anticipated or pre-empted in the horizon scanning sessions and, if so, whether "pro-active reaction" bespeaks a commitment to dialogue, discussion

and debate, or simply a more effective and tightly-focused mechanism for communicating scientists' concerns about science, a much less dialogic approach to public relations than the *Third Report* seemed to be promising in Miller's optimistic account (Miller 2001).

Perhaps prompted by awareness of such reservations, in a more recent account of the SMC's operation published in 2009, Fiona Fox, the Director of the Science Media Centre since its founding, claimed that it "is a press office that is completely independent, eschews PR and has no brand or institution to promote" (Fox 2009b: 109). Each of these three claims is highly contestable. The Science Media Centre could not exist without funding from a range of stakeholders, nor could it function without the co-operation of the scientists who attend its press briefings or provide comments for the press releases or round-ups of commentary written and/or collated at the Science Media Centre. The claim to independence rests on a funding formula which caps the amount that individual funders can "donate". To suggest that independence is simply a financial issue seems odd – naïve or disingenuous – when the centre is as invested in the pursuit of relationship-building as it proudly acknowledges itself to be. Disavowing public relations (PR) is an even odder claim. The centre uses the time-honoured routines of PR – press briefings, press releases, round-ups of quotes – so it is hard to know which aspects of the public relations business are being disclaimed. Finally, to suggest that there is no brand to promote only makes sense if one is extremely literal-minded and equates brands with consumer goods. The Science Media Centre treats "Science" as a brand – albeit one with multiple product lines – and aims to help it compete with other brands – such as religion – in the marketplace of media attention. To be fair, the Science Media Centre is an unusual organisation. It does not follow either the model of a retained public relations consultancy, which exchanges a certain amount of time and labour for a pro rata fee, nor the model of an in-house press office with internal clients from just one organisation. It is rather a somewhat peculiar hybrid of the two, with a multiplicity of potential "clients" and a financial structure that compensates for time and labour but with no direct pathway from client to outputs to compensation. So perhaps it is this disruption in the path between inputs and outputs on which Fox bases her claims of independence. However, without some financial investment from the SMC's client base, and some sense from that client base that the centre represents value for money, it is difficult to see how the organisation could be sustained. Perhaps what she is trying to suggest with the formulation "eschews PR" is that the SMC is not in the business of "puffery" or "spin", but many public relations professionals would understand their role similarly to be about the dissemination of information – leaving persuasion to their colleagues in advertising, marketing and sales promotion – so perhaps in that sense the SMC is not quite as distinctive as she suggests. However, the line between information and persuasion can be a hard one to draw when in the business of securing share of voice or share of audience for a client, so I would suggest that the SMC is as open to these risks as other organisations performing public relations.

Fox writes: "The Centre's official philosophy [is] that 'The media will "do" science better when scientists "do" media better'" (Fox 2009b: 109). She notes that this

vernacular philosophy mirrors the sentiments of "the BBC's veteran science reporter Pallab Ghosh who has long called on scientists to 'get off the sidelines, learn the rules of the game and get on the pitch'" (ibid.: 109). This injunction to scientists to learn the rules of the media game and to play by them in the bid to "help renew public trust in science" (SMC 2002: np) takes for granted the following propositions: that there is a deficit in scientists' understanding of the media game; that there are rules to this game that can be learnt; that learning and applying the rules will lead to the media "doing" science better as a corollorary; that this remedial action is the appropriate way to restore public trust in science.

Beginning with the last of these propositions, the spectre of the BSE crisis looms large, but it is important to distinguish between the lack of trust that members of the public might have in government scientists or scientists representing, for example, the interests of food producers, from the trust that they place in publicly funded scientists working on research with prospective medical applications. *The Third Report,* "the hugely influential House of Lords Select Committee Report on Science and Technology (2000), which gave rise to the setting up of the Science Media Centre" (Fox 2009b: 109), claims unequivocally that

> the culture of United Kingdom science needs a sea-change, in favour of open and positive communication with the media. This will require training and resources; above all it will require leadership [. . .] It will inevitably involve occasional embarrassment or frustration. But, if it succeeds, it will pay for itself many times over in renewed public trust (Chapter 7).

The authority with which this claim is stated is rather at odds with its lack of specificity, particularly as the report itself does note the distinction in trust attribution that I mention above. What kind of public trust is being sought? Is it trust that scientists will engage openly and positively with the media? Trust in the contents of scientific knowledge? Trust in the practice of science? Trust in the institutions of science? Is this particular sea-change in "the culture of United Kingdom science" standing in for other kinds of change argued for by science scholars with regard to the institutions of science and science policy and, if so, is it a useful supplement to, or a diversion from rethinking the complexity of the science/society relationship? With regard to the proposition that there is a deficit in scientists' understanding of the media game, the report cites Tim Radford's claim that "the cadre of scientists with 'media savvy' is expanding" (House of Lords 2000: 7.39.) but goes on to note: "So too, however, are the ranks of scientists with bad experiences of dealing with the media, who may be fearful of engaging with them again" (loc. cit.) The Science Media Centre has certainly enrolled a large number of scientists to provide content for its news briefings – over 2,000 according to Fox (2009b), but has this really changed the tendency reported by Sir Robert May and Dr. Farmelo of the Science Museum, for the media to be "too reliant on a small number of highly articulate spokesmen for science"? (loc. cit.) I will suggest in Section 12.4 that there are institutional histories and relationships that still make this over-reliance more likely than not. Further, the ongoing economic pressures on the print news media in particular (Williams and Clifford 2009) means that organisations like the SMC, which can act as intermediaries to lift the burden from overstretched journalists, may simply shift

this dependency from a few well-known and articulate scientists to the conduit provided by the SMC, which may suit those individuals and institutions that can buy into what the SMC requires of them, but which still leaves out in the cold those who do not. Fox claims that a

> clear consensus emerged about the weak spots in science media relations where the Centre could make the biggest difference [. . .] the apparent inability of many in the scientific community to react quickly, confidently and effectively to breaking news about controversial science stories (Fox 2009b: 112).

In developing a database of experts who could respond to this challenge,

> scientists and engineers are selected not just for their proven expertise, but also for their willingness and ability to engage with the media when their issues hit the headlines. Given the SMC's focus, those joining our database know they are signing up to our goal of improving the way issues are covered by getting stuck into the media debates rather than shouting from the sidelines. [. . .] they understand that the SMC will call on them to drop everything – even late at night or at weekends – to do media work when their area hits the headlines (Fox 2009b: 115–116).

However, laudable as the ambition might be to ensure that spokespersons with the appropriate expertise and commitment are available to respond to controversy, as Fox notes: "The SMC is certainly not restricted to reacting to the headlines, and since opening we have facilitated scientists to generate their own headlines on many occasions" (Fox 2009b: 117). It is this aspect of the SMC's work that I would suggest is particularly risky if the SMC's core mission is to restore public trust in science. Facilitating clients to generate their own headlines seems to me to be the essence of the kind of public relations from which Fox seeks to distance the SMC. Running the risk of stirring up controversy or creating hype whilst generating such headlines is fraught with the potential for backlash. In the next two sections, I discuss some of SMC's interventions in relation to the field of embryo research in relation to this potential.

## 12.4 Pro-active Reaction to the Cloning News Agenda

One early noteworthy example of the SMC's "pro-active reaction" to the news agenda was the concerted response by UK science sources to the claims made by Dr. Panos Zavos – about reproductive cloning – in a press conference in London in January 2004. The press coverage of this news event bore all the hallmarks of the pro-active reactivity that the Science Media Centre outlines in its consultation report. It also bore out the distinctiveness of the SMC that is argued for in the report: "By not being a part of any one institution, or promoting its own brand name, the SMC can potentially look to the whole world of science for spokespeople and comment" (SMC 2002: 14). Fiona Fox (2009b) argues that publicity for maverick cloners "was feeding the totally inaccurate view that mainstream science was in a race to clone the first human" and that the SMC wanted to tackle this by encouraging stem cell scientists working on therapeutic cloning to challenge these stories in

the media rather than boycotting them. The SMC was successful in mobilising "the leading cloning and fertility experts with whom we had been debating the issue" and thus providing a clear news frame distinguishing reproductive cloning from therapeutic cloning and gaining coverage across the UK national press and television news broadcasts. The strategy also allowed journalists to "have their cake and eat it", as they could report Zavos's sensational claims – with all the entertainment value they might provide (not to mention avoiding the risk of being scooped in the very slim chance the claims had any foundation) – whilst distancing both themselves and the scientific establishment from them.

However, in the case of embryological science and therapeutic cloning, the continued prominence of key spokesmen (rarely spokeswomen) in media coverage is largely a result of the very close working relationships established by the Science Media Centre with this small cadre of media savvy scientists and the SMC's provision of the infrastructure to stage briefings. Arguably, however, there was no need for the SMC to change the culture within this particular niche of the science community so that they would view headlines as a golden opportunity. In the field of embryonic stem cell research and therapeutic cloning, there was a convergence of the experience gained in lobbying and media communications in support of embryo research provision in the 1990 Human Fertilisation and Embryology Act (Mulkay 1997) with the media orientation of the Human Genome Project that Hilgartner (Chapter 10) discusses. Add into the mix cloning controversy and what Hilgartner calls "media orientation as a form of theatrical self-consciousness" seems somewhat over-determined (Haran et al. 2008). Additionally, as Elliott (Chapter 5) notes, leading science journalists seemed to have lost their critical distance from this particular area of science endeavour. He quotes from the same Tim Radford chapter I have already referenced to emphasise the extent to which science journalists were enrolled by the story of the prospective benefits of stem cell research and employed "hype, spin, naivete and ruthless headline grabbing".

## 12.5 "A Model of How Scientists Should Engage with the Media"?[9]

So when Fiona Fox claims that "In May 2008, our elected representatives reflected public opinion in favour of allowing the [human-animal embryo] research to continue", and highlights that "many of the approaches that the SMC has pioneered were applied to the media work around this contentious issue" (Fox 2009b: 126–127), her claims warrant further investigation. If it seems unfair to focus on one particular news story – albeit one with multiple episodes over 3 or 4 years – to the exclusion of the other stories funneled through the SMC I would note that the SMC itself wishes to represent it as exemplary. Fox points out that

[9] Fox (2009b: 126).

> it is a little known fact that leading stem cell scientists were the first to kick off the media debate about human-animal embryo research when they briefed science reporters at the SMC in June 2005. Stephen Minger, Robin Lovell-Badge and the late Anne McLaren did what all scientists should do: they took one of the most controversial areas in their field and gave journalists an in-depth briefing on the scientific potential as well as the ethical issues around this research; even voicing their concerns about a gaping regulatory loophole (Fox 2009b: 126)[10].

This laudatory summary does not give any accounts of the motives or interests of these scientists which include securing their license to practice this type of research in the light of a government review of the 1990 Human Fertilisation and Embryology Act announced in 2004, including the holding of a public consultation exercise in 2005.

The ongoing news coverage of "animal-human admixed embryos", as they came to be called, certainly seemed to suggest that science journalists were fully persuaded by these briefings, in the same way that Radford suggests they were earlier in regard to human embryonic stem cell research, as they framed the government's public consultation as "biased" and represented any potential opposition to legislating to permit the research as irrational. The briefing in 2005 is not the only one that Fiona Fox mentions on this topic. In her blog, *Science and the Media*, she writes that a further briefing, on 4 January 2007, was planned

> after eagled eyed Evan Harris MP and leading stem cell expert Stephen Minger spotted a sentence in the Government's White Paper on fertility laws published in late December which proposed a ban on the use of human-animal hybrid embryos for research (http://fionafox.blogspot.com/2007/01/stem-cell-scientists-seize-media-agenda.html).

Andy Williams et al. (2009) have conducted detailed content analysis which demonstrates that pro-hybrid scientists were the source group quoted most often in the period between January 2006 and November 2008, particularly in the broadsheets, and that overall newspaper coverage contained more pro-hybrid than anti-hybrid sources. Further, they note that pro-hybrid sources dominated coverage during 2006 and 2007 more than they did in 2008 following the entry of the Catholic Church into the "source struggle". So the SMC was very effective in setting the news agenda and framing the issue. I am particularly interested, however, in stories, such as the ones discussed in this paragraph which are editorial opinion pieces by science journalists. The first piece appeared in *The Times* on January 5, 2007, bylined to Mark Henderson, Science Editor. Its headline is unequivocal and – *pace* received wisdom about sub-editors misrepresenting story content – neatly sums up Henderson's claims in the piece: "Ministers have been spooked by 'frankenbunny' headlines". In the *Independent*, Science Editor Steve Connor wrote:

[10] In the January 2007 blog, Fox seems to indicate that the first briefing occurred in January 2006, but her presentation at the Genomics Forum event in March 2009 states that the background briefing on "Chimeras" took place in August 2005, while the background briefing in January 2006 was represented as the SMC's response "to the media's requests for a background briefing about the impact of the [Hwang] crisis on cloning research" (http://www.genomicsnetwork.ac.uk/forum/publications/egneventreportsvideospresentations/title,8496,en.html).

> A public consultation into the issue of creating embryos by combining animal and human material produced a massive response against such research. This is said to have spooked the Department of Health in particular into calling for an outright ban. Critics have argued, however, that the consultation had been hijacked by pressure groups opposed to all research on human embryos (Connor 2007).

Similarly, in the *Guardian*, under the headline "Luddites and moralists", Alok Jha, Science Correspondent, wrote:

> When public health minister Caroline Flint unveiled the white paper on fertility research last month, the clause on animal-human hybrid embryos flew in the face of all of the scientific advice, proposing that it should not be allowed. Flint cited a preceding consultation as justification for the government's reversal of support. But the extent to which these sorts of consultations can be hijacked by pressure groups is well known (Jha 2007).

This framing of members of the public who organize collectively as "special interests" and therefore outwith the mainstream of public opinion accords with Irwin's analysis of the implicit premise in critical accounts of the *GM Nation?* debate that "organized groups represent a problem for this form of public debate and, conversely, that 'true' public opinion must be held by those without 'fixed views'" (Irwin 2006: 312).

It cannot be determined definitively from these newspaper stories whether this framing of members of the public emerges from the Science Media Centre, the scientists at the briefing, or the journalists quoted, but the homogeneity of the approach is striking. Further, the assumption that scientific advice offered by those who wish to conduct the science can conversely be taken on face value without any interrogation of their special interests bespeaks a lack of critical engagement with the wider context of that advice by science journalists. Is this lack of critique a feature that the Science Media Centre should exploit on behalf of its "stakeholders", by promoting easy access to media savvy experts, or should the SMC and its "clients" be more wary of undermining public trust in scientific journalism?

To suggest that public opinion was absolutely measurable, and unequivocally in favour of legislating to permit human-animal hybrid embryo research in this case is arguable. In 2007, the Human Fertilisation and Embryology Authority conducted its own public consultation and concluded:

> Having looked at all the evidence the Authority has decided that there is no fundamental reason to prevent cytoplasmic hybrid research. However, public opinion is very finely divided with people generally opposed to this research unless it is tightly regulated and it is likely to lead to scientific or medical advancements (HFEA 2007).

Further scrutiny of the press release announcing this conclusion makes it clear that this is only the public opinion of "people who do not fundamentally oppose embryo research". In its public consultation exercises, the HFEA is always clear that it works from the premise that what is already permitted in law has been publicly debated and is no longer open to question, although it does consult repeatedly on extending what is permissible. So to represent the outcome of the HFEA's consultation as more legitimate than the consultation undertaken by the Department of

Health obscures the difference in roles that legislators and regulators perform, and the different constituencies they attract.

In terms of access to scientists with "proven expertise" and "willingness and ability to engage", the SMC was able to depend on the participation of a highly motivated and highly articulate community in what Fox called "the battle for human-animal" hybrid embryos (Fox 2009a: Slide 2). In her blog, she also refers to "the enthusiastic backing of their respective press officers" (Fox 2007). Ian Wilmut from Edinburgh, Lyle Armstrong from Newcastle, Anne McLaren from Cambridge and Chris Shaw and Stephen Minger from Kings College, would be able to depend on such enthusiastic backing from their employing institutions because of their respective roles as research leaders and fundraisers for such research, so their participation in such briefings is somewhat overdetermined. However, this participation is not necessarily cost-free to the individuals and it potentially also misrepresents the larger institutional and funding context in which their proposed research must be conducted. For example, Fox claims that participating scientists understand they must be instantly available at any time if their expertise is relevant to a breaking news story (Fox 2009b: 115–116), but if a press campaign is as sustained as the one in support of hybrid embryo research, such a commitment must surely place significant – even punitive – additional workload burdens on those scientists enrolled as key spokespersons. Further, as became apparent once the new Human Fertilisation and Embryology Act passed into law, just because research is permissible, does not mean that it will be funded. On 13 January 2009, under the headline "Funding halted for stem cell research", an exclusive story bylined to Steve Connor, Science Editor of the *Independent*, claimed in its subheading that "scientists say cash for research and existing projects has been cut off for 'moral reasons'" (Connor 2009a, b). The story included quotes from both Stephen Minger and Lyle Armstrong, neither of whom had been able to secure funding for hybrid embryo research and concluded with the paragraph:

> The revelation that the research has been frozen by lack of funding has astonished some observers. Fiona Fox, head of the Science Media Centre in London, who co-ordinated a successful campaign to support the Bill, said: 'I find it remarkable given the unprecedented level of support for this research across the scientific community' (Connor 2009a, b).

Apart from the atypical reference to the Science Media Centre brand in this story, there is the unreasonable assumption that support voiced in the media for the license to practice will translate into anonymous peer-reviewed funding in a highly competitive funding climate. The sources quoted and the framing of the story beg the question whether the SMC has been too successful in brokering close relationships between scientists and science journalists, to the potential detriment both of appropriate scepticism on the part of journalists and to the reputation of individual scientists who, despite being willing and able to engage, may not always be sufficiently cognisant of the shift from "background briefing" to a fully attributable quote in an "exclusive" news story. According to a news story on Nature.com the following day, "When *Nature* spoke to Minger he said the *Independent* misinterpreted his

comments, adding he did not have any evidence that moral objections led to his proposal being rejected" (Gilbert 2009).

Steve Connor returned to the story on 5 October 2009 on the front page of the *Independent* with the headline "Vital embryo research driven out of Britain", apparently when he learned that Justin St. John, one of the three holders of HFEA licences to create animal-human hybrid embryos, was leaving the UK to work in Australia. The SMC's website reveals that, in response, it produced a press release with comments from senior executives within the MRC and BBSRC, pointing out that embryonic stem cell research is extensively funded by both their councils and reiterating the points made earlier in the year about peer review of funding applications and the non-equivalence of licensing and funding. Both Justin St. John and Keith Campbell provided comments about the different research projects they were pursuing which they saw as both more scientifically promising and better use of resources.[11] Does this front page story and the availability of such sources to provide critical commentary on it demonstrate that the SMC is successful in its mission? Or might it lead to re-evaluating the strategy to focus attention so heavily on a single area of enquiry to the exclusion of the rest of a diverse research field? Was the public – whoever they might be beyond the limited target audience of legislators drafting and voting on the Human Fertilisation and Embryology Bill – served by extensive and repetitive coverage of just one of myriad pathways to researching disease and its cures? Or might this approach skew understanding of the field to an extent that ultimately undermines trust in scientists to pursue research that addresses public concerns rather than their own? Did this campaign, which fused representations of scientific knowledge with claims upon science governance and an overly simplified vision of scientific practice, generate public understanding of and trust in science or did it reveal some of the pitfalls in equating positive media coverage with public understanding of and trust in science?

## 12.6 Conclusion: Unashamedly Pro-Science

The Science Media Centre is positioned in accordance with Baroness Susan Greenfield's original vision of the centre as "unashamedly pro-science" (SMC 2002: 14). Cited in support of this decision is the likely disproportionate media exposure that accrues to "the voices that are often critical of science" (loc. cit.) suggesting that scientists' self-assessment of their relative power and effectiveness in society is radically at odds with how they are perceived by others, particularly if they are promising cures.

The adoption of public relations techniques and message simplification by the Science Media Centre and their roster of media-savvy scientists, to attempt to meet the news agenda head-on, conceptualised as "open and positive communication"

[11] See http://www.sciencemediacentre.org/pages/press_releases/09-105_hybrid_research_funding.htm.

(SMC 2002: 23), could be alternatively framed as an attempt to impose closure on the messages transmitted by the media and to retain the authority to speak for – and about – their profession and its practices. Although this is a plausible and time-tested strategy for media relations in other professional and commercial sectors, in the bid to avoid misunderstanding or misrepresentation, it is arguably at odds with the attempt to restore public trust in science by engaging members of the public in informed debate. Whether informing and engaging the public about science could ever be effected through media relations is an open question, but the House of Lords report which prompted the founding of the Science Media Centre certainly viewed this as a possibility. In terms of democratic governance of science, however, there was always already a tension inherent in the challenge issued through this report, conceptualised in the SMC's Executive Summary as "improving science communication as a means to 'secure science's license to practice not to restrict it'" (SMC 2002: np) as it erases the public as stakeholders through its narrow focus on policymakers and communications practitioners.

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## References

Bodmer, W. (2010). Public understanding of science: The BA, the Royal Society and COPUS. *Notes & Records of The Royal Society*. Published online July 14, 2010, doi: 10.1098/rsnr.2010.0035 (last accessed on 30 November 2010).

Connor, S. (2007). Should we allow the creation of embryos which are animal-human hybrids? The big question. *Independent*, January 10, 2007.

Connor, S. (2009a). Funding halted for stem cell research. *Independent*, 13 January 2009.

Connor, S. (2009b). Vital embryo research driven out of Britain. *Independent*, 5 October 2009.

Fox, F. (2007). Stem cell scientists seize the media agenda on human animal embryos. *On Science and the Media*. Blog entry. http://fionafox.blogspot.com/2007/01/stem-cell-scientists-seize-media-agenda.html (last accessed on 30 November 2010).

Fox, F. (2009a). Slide presentation at Human Fertilisation and Embryology Act: A retrospective, 12 March, 2009. http://www.genomicsnetwork.ac.uk/forum/publications/egneventreportsvideospresentations/title,8496,en.html (last accessed on 30 November 2010).

Fox, F. (2009b). Science communications and ethics – Trying to get it right: The science media centre – A case study. In B. Nerlich et al. (eds.), *Communicating biological sciences: Ethical and metaphorical dimensions*. Farnham: Ashgate, pp. 109–128.

Gilbert, N. (2009). *Moral objections to hybrid embryo research claims rejected*. Blog entry on The Great Beyond at Nature.com. January 14 2009. http://blogs.nature.com/news/thegreatbeyond/2009/01/moral_objections_to_hybrid_emb.htm (last accessed on 30 November 2010).

Haran, J. (2007). Managing the boundaries between maverick cloners and mainstream scientists: The life cycle of a news event in a contested field. *New Genetics and Society*, 26(2), 203–219.

Haran, J. and J. Kitzinger (2009). Modest witnessing and managing the boundaries between science and the media: A case study of breakthrough and scandal. *Public Understanding of Science*, 18(6), 634–652.

Haran, J., et al. (2008). *Human cloning in the media: From science fiction to science practice*. London: Routledge.

Haraway, D. J. (1984). Primatology is politics by other means. *PSA: Proceedings of the Philosophy of Science Association*, 2, 489–524.
Henderson, M. (2007). Ministers have been spooked by "frankenbunny" headlines. *The Times*, January 5, 2007.
HFEA (2007). HFEA statement on its decision regarding hybrid embryos, 5 September 2007, available at http://www.hfea.gov.uk/455.html (last accessed on 30 November 2010).
House of Lords Select Committee on Science and Technology (2000). Third Report of Session 1999–2000 Science in Society.
Irwin, A. (1995). *Citizen science*. London: Routledge.
Irwin, A. (2006). The politics of talk: Coming to terms with the 'new' scientific governance. *Social Studies of Science*, 36(2), 299–320.
Jha, A. (2007). Luddites and moralists: A ban on the use of hybrid embryos will be the consequence of ill conceived pressure. *The Guardian*, January 11, 2007.
McNeil, M. (2012). Between a rock and a hard place: The deficit model, the diffusion model and publics in STS.
Miller, S. (2001). Public understanding of science at the crossroads. *Public Understanding of Science*, 10, 115–120.
Mulkay, M. (1997). *The embryo research debate: Science and the politics of reproduction*. Cambridge: Cambridge University Press.
Radford, T. (2009). A workbench view of science and communication. In B. Nerlich et al. (eds.), *Communicating biological sciences: Ethical and metaphorical dimensions*. Farnham: Ashgate, pp. 145–152.
Science Media Centre (2002). Consultation Report. March 2002. Available at: http://www.sciencemediacentre.org/uploadDir/536adminconsultation_report.pdf (last accessed on 30 November 2010).
Science Media Centre (SMC) (2009). Expert reaction to Independent story on funding of hybrid research, 5 October 2009. http://www.sciencemediacentre.org/pages/press_releases/09-10-05_hybrid_research_funding.htm (last accessed on 30 November 2010).
The Royal Society (1985). *The public understanding of science*. Report of a Royal Society ad hoc Group Endorsed by the Council of the Royal Society.
Williams, A. and S. Clifford (2009). *Mapping the field: Specialist science news journalism in the UK national media*. Research Report. The Risk, Science and the Media Research Group, Cardiff University School of Journalism, Media and Cultural Studies.
Williams, A., et al. (2009). *UK National Newspaper coverage of hybrid embryos: Source strategies and struggles*. Research Report. The Risk, Science and the Media Research Group, Cardiff University School of Journalism, Media and Cultural Studies.
Wynne, B. (1991). Knowledges in context. *Science Technology & Human Values*, 16(1), 111–121.
Wynne, B. (1992). Public understanding of science research: New horizons or hall of mirrors? *Public Understanding of Science*, 1, 37–43.