

6 PUBLIC ENGAGEMENT ON THE USE OF ANIMALS IN BIOMEDICAL RESEARCH

Scientists, on the whole, are keen to engage with the public and can see the value of doing so. They do see a number of obstacles, such as lack of training and the difficulties combining research with serious commitment to public engagement. Here, **Nancy Rothwell** looks at the lessons to be learned from public engagement on animal use in research. Although one of the most highly charged areas of public engagement, open public dialogue has been possible and has influenced public opinion.

Scientists are increasingly aware of calls for public engagement. The Government, research funders and the wider public are all encouraging scientists to explain and discuss their research, to seek views and to consider the sensitivities and concerns of the non-scientific community. A recent MORI survey commissioned by the Wellcome Trust revealed some surprising findings.¹ Over half of the scientists surveyed claimed to have taken part in public engagement and three-quarters felt equipped to communicate their research to non-scientists. These figures are much higher than the experience of those involved directly in public engagement.

Research on experimental animals offers an interesting case study of one of the most difficult areas of public engagement, and allows us to consider which scientists are involved, what problems they face, what might be in it for them, and how they might best go about it.

In this, as in any area, it is first important to ask who is the public and what is engagement? The public of course includes the informed, educated, interested and engaged populations as well as naive, uninterested and poorly educated groups. In sensitive areas, such as animal research, it can also include extreme animal rights groups. The challenge of engagement is influenced particularly by experience and self-interest, by a multitude of conflicting types of information, by a huge media interest, occasionally by violence and fear, and, in the UK at least, by a long history

of public debate. This engagement can mean simply discussing what animal research is or does, or stepping into what some would call ‘the firing line’ to defend it.

History of the debate

Concerns about the use of animals in research have a long history in the UK, dating back over a century. Indeed, the Research Defence Society (RDS), established to explain and support the use of animals in research, is almost a hundred years old. Then, as now, the argument against animal research has had two distinct strands – first about the morality of using animals in research (if they suffer, or even if they do not), and secondly the value of animals in diagnosing, understanding and developing treatments for medical and veterinary diseases.

There has been much speculation about why the public debate on animal research has been so longstanding, so prominent and at times so polarised in the UK, but much less so in other countries. The answers are usually unconvincing, but are relevant to other ongoing areas of sensitivities. Britain is cited as a nation of animal lovers, which has many pets and makes generous donations to animal welfare and protection charities. But it has also been heavily dependent on farming, with a high proportion of meat eaters. Interestingly, while Britain once seemed to stand alone as a fierce debating ground on animal experimentation, other countries are now facing similar activity. Sweden has seen some violent protests, and animal rights groups are now very active in the USA.

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The longevity and intensity of interest in the animal experimentation debate has led to the establishment and growth of a number of groups to “promote the causes of animal experimentation and experimenters” such as the RDS and the Coalition for Medical Progress (CMP). Other groups that include such aims in their activities include the Association of the British Pharmaceutical Industry, the Royal Society, the Biosciences Federation and many other learned societies.

Specific challenges associated with the debate on animal research

Scientists are often frustrated by the generally poor standards of science education and understanding of even fundamental issues in science by the public, and even by their academic peers. C P Snow lamented the general familiarity with Shakespeare, but widespread failure to grasp even a basic notion of Newton’s laws. But in spite of this frustration and broad encouragement, as a result of a series of reports initiated by the Bodmer report in 1985, this is clearly



Y CARE ABOUT ANIMALS?

Every Breath, an intriguing ‘theatre debate’ production from Y Touring, uses drama to draw out audience beliefs and preconceptions about research using animals.

Every Breath, written by Judith Johnson and aimed at 14-year-olds and above, gently draws viewers into the emotionally turbulent lives of its everyday inhabitants: real lives tinged with pain, fragile people striving to do the right thing. But are those lives more important than those of animals used in research? At what point do you decide to honour the lab rat above your own life? Framing the debate is the well-intentioned, pro-animal rights Sonny, and his volatile sister, Anita – soon to don her new lab coat and start carrying out experiments on animals in pursuit of her PhD... →

EVERY BREATH

Funding

£128 000 (2005, Society Award) plus a further contribution from the Association of Medical Research Charities

Project lead

Nigel Townsend, artistic director, Y Touring Theatre Company

More details

www.ytouring.org.uk

Left: *Every Breath* engages young people with issues without preaching. D Kampfner

not a primary area for many or most scientists. There are of course still barriers and disincentives. Scientists admit (see the Wellcome Trust/MORI report) that most have had little or no training, but the real pressure is on their time. Unless and until public engagement is valued alongside research outputs and excellent teaching, it is unlikely to be a major feature in the scientists' diaries. In animal research, the problems are aggravated by sensitivities, and by violence or threats, leading to a culture of fear among those involved in every aspect of the use of animals in research, though the perception of risk by scientists far outweighs the reality.

Numerous groups campaign or protest about the use of animals in research, but their views and actions vary enormously. Animal welfare groups, including many that engage with the scientific community (e.g. the RSPCA and the Universities Federation for Animal Welfare) argue cogently for continued action to limit the suffering of animals used in research, and for intense efforts to reduce or replace animal use by other means. Such groups have played an important role in ensuring high standards of welfare and legislation in the UK and should be supported by the scientific community. More extreme antivivisection groups argue that all experiments on animals are morally unacceptable, and/or that they are misleading in that they have led to no medical or veterinary advances. The first of these arguments is difficult to counter, in the same way that it is difficult for an atheist to challenge religion. It is a matter of belief, or moral conviction. The second, that animal experiments are invalid, challenges a vast scientific and medical literature, and can be readily countered by rational debate. Further, some of the animal rights groups eschew debate in favour of intimidation, harassment and violence.

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The intensity of feeling on this issue, and the high media profile, has had serious implications for UK science and business. In spite of strong support from Government, and according to most polls from the public, the biotech and pharmaceutical industries, which are the pride of the UK's economy, are inevitably considering the UK as a somewhat hostile environment for their research programmes that use animals. Many animal breeders have now closed, meaning that laboratory animals must be imported, often over long distances, sometimes from countries with a rather less robust record in animal welfare than Britain, and universities are struggling to meet the growing demands for animal facilities – not least the University of Oxford.

The role of the scientist

Professional communicators have an important role in this discussion and may be less fearful of 'personal targeting' by extremist groups. But the scientists who are actually conducting the research, and the clinicians and vets who develop and use medications resulting from research, have the most powerful voices. Recently, patients and their carers have taken on an increasing role in the debate – with significant impact and media interest.

The nature of public engagement varies enormously. Entering a live TV debate or discussion with antivivisectionists or seemingly antagonistic journalists is daunting and requires special skills and training, but reaches a huge audience. The most common grounds for discussions are visits to schools, patient groups and other interested parties (university public presentations, Rotary Clubs, Women's Institutes and other lay organisations). These are almost universally positive experiences. I have never once been challenged about animals in numerous presentations to such fora, and in spite of presenting clearly the use of animals in my research, have never even met a hostile response. The most extreme controversy was from an elderly lady who wanted to state her outrage that "some nutters should try to stop such important research".

Nevertheless, it is valuable to take advice or training in order to feel as prepared as possible. There is much valuable advice on offer, for example from the RDS (media tips, special media training courses, schools training and educational packs such as videos and books), the Science Media Centre, or the CMP. While scientists normally feel quite comfortable discussing and, if necessary, defending their own research, anyone who has talked to schoolchildren will know that questions can be many and varied, from "How many alcopops does it take to kill your brain cells?" to "How many animals do you kill each day?" and "What do you do to cats you catch on the street?" The responses to these and many other questions are straightforward. Just a few facts can instantly dispel myths. In an environment where research suggests that scientists are generally seen as elderly, male and uncaring, it is important that younger scientists enter the debate and clearly state their reservations about using animals. We admit these concerns to each other but seem to feel that public admission is a breach of the 'scientific defence barrier'. But I would argue that any scientist who is not passionate and concerned about animal welfare should never undertake research on animals.

To give a talk about why animals are important in research may prove to be a great challenge to scientists, but presentation of their use in the context of a research programme rarely elicits hostility. Most audiences are fascinated by science, and are highly respectful of scientists. It is important to discuss the array of approaches used (the vast majority of which do not use animals),

→ *Every Breath* doesn't tell the audience what to think; rather, it provokes a wide range of ideas, thoughts and conflicting emotions for the audience to mull over while engaged with a genuinely moving drama. Following the performance, the tables suddenly turn and the performers, still in character, enter into a facilitated debate with members of the audience.

The play is making a big impression wherever it goes. Aiming to reach as many as 15 000 schoolchildren in Britain this year, *Every Breath* has been unanimously well received, both by teachers and students. Invariably, young audiences are sucked into this nebulous world of rights and wrongs, becoming highly vocal participants in an ongoing debate with few clear-cut answers.

Instead, it seems students are frequently left with more questions, turning breaks between lessons into opportunities for further discussion. For those who have left school, Y Touring will be performing *Every Breath* at this year's Edinburgh Festival.

It's no accident that Nigel Townsend's scientific theatre productions are so polished and effective. Well before the writing stage, development was guided by meetings between scientists, animal rights campaigners, playwrights and even a philosopher. From the very outset, the play intended to explore shades of grey, rather than providing a strong moral message. →

Right: Young people performing *Leap of Faith*, another Y Touring project.



when and why they are appropriate, and when and why animals are used. The strict legislation in the UK is such that it is illegal to conduct any experiment on animals if there is a valid non-animal alternative. It is also helpful to put the scale of animal use in context – the numbers used in research in the UK (approximately 3 million per annum) is tiny compared to those used for food (100 times as many) or killed as pests (three times as many rodents).

Scientists need to identify clearly their role in discussions on animal research. Given the intensity of the debate, it is easy to step onto the defensive and assume that the scientific community's job is to persuade 'the public' of the value of using animals. There is a danger of assuming such a role. Science will benefit much more if its protagonists explore the need and value, and confront the concerns and sensitivities about the use of animals. It is particularly important to acknowledge publicly that animals used in research can and do suffer sometimes, and the moral issues that this raises.

RESEARCHERS REMAIN POSITIVE

Scientists in universities are becoming more active in science communication, but without getting trained to do it, according to the latest survey of researchers' attitudes.

The survey, commissioned by the Royal Society, asked scientists in higher education institutions across the UK whether they had been involved in at least one science communication or public engagement activity in the previous year.¹ Seventy-four per cent said they had, a rise of 18 percentage points on the figure recorded by the MORI/Wellcome Trust survey in 2000. However, 73 per cent of those responding also said that they had received no media, communications or public engagement training.

Two-thirds indicated that pressure to spend more time on research was preventing them from doing more

public engagement work, and one in five thought that scientists who take their work to the public lose respect in the eyes of their peers. Some of those interviewed in more depth felt that public engagement was seen as 'fluffy'.

The most popular form of engagement remained the public lecture, followed by interacting with policy makers, working with schools, and taking part in public dialogue or debate. However, while they were keen on 'educating' the non-specialist public, most university researchers remained rather more interested in engaging directly with policy makers and industry.

Reference

- 1 **Factors Affecting Science Communication: A survey of scientists.** London: Royal Society; July 2006, in press. See www.royalsoc.ac.uk/page.asp?id=3180 [accessed 5 June 2006].

The other danger is that scientists focus on 'the opponents' and spend more time on criticising the animal extremists or responding to the antivivisection agenda than discussing the real issues and the areas of their expertise.

The changing climate

While animal research has been one of the most sensitive and difficult areas, it is also one of remarkable success. Over the past decade, open discussions on animals and the activity of organisations such as the RDS, the CMP, the Research Councils, charities and the Science Media Centre have intensified enormously. Most leading universities and medical charities now carry statements on their websites about animals and there are many sources of advice available. Concordant with this has been quite a dramatic increase in political and public acceptance. Successive MORI polls reveal positive changes in the perception of the use of animals in research, and analysis of media reports shows a remarkable increase in favourable coverage of animal research. While it is not possible to prove conclusively that these two developments are directly linked, smaller, qualitative case studies show that clear and objective explanations about what animals are used, why and how, seem to result in greater acceptance by lay people. But, at the same time, some of the more extreme actions of animal rights groups, including personal violence, have caused revulsion and may indeed have led to sympathy for the scientific community.

The number of scientists speaking publicly about animal experiments, while still woefully small, is now growing, and the first public demonstration in favour of this research (led by Pro-Test) was seen recently in Oxford, led by students. There is also great support for this area from Government, with clear public statements from the Prime Minister, the Chancellor of the Exchequer, the Minister for Science and several successive Home Office ministers.

Conclusions

Animal research remains one of the most difficult areas of public engagement, and one that many scientists are still reluctant to embrace. However, it also provides a fascinating case study where public opinion has shifted, where any adverse effects on the scientists who speak out are extremely rare, and where openness is gradually increasing. As such, it is an example of the remarkable influence of the benefits of public engagement in one of the most difficult areas of biomedical research.

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Reference

- 1 **The Role of Scientists in Public Debate.** London: Wellcome Trust; 2001.

→ *Every Breath* is the latest in a long line of science issue-based drama-and-debate productions developed by Y Touring. The company's connection with the Wellcome Trust dates back to 1995, when it produced *The Gift*, a play exploring the issues surrounding embryo selection. Other Trust-funded works include *Cracked*, which tackled mental health issues in young people, and *Learning to Love the Grey*, a study of embryonic stem cell use in medicine.

Society Awards

Upwards of £50 000, Society Awards come in two forms: activities and research. **Activity awards** support large-scale activities, such as conferences, art projects, workshops or educational resources. The intent is that the activity will make a sizeable, nationwide impact on public engagement with biomedical science.

Research awards are of the same financial scale but support academic research that advances knowledge of public engagement in the biomedical sciences.

www.wellcome.ac.uk/engagingscience

Right: A scene from *Cracked*, another Trust-funded Y Touring production.

