The Animal Research Debate

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Animal experiments are highly controversial. A massive debate has gone on in the past few years about the issue. Animal rights extremism has encouraged the media to take a long hard look at the benefits of animal research to see if experiments are justified. There has been significant progress, with broad support for animal research from the scientific community and from government.

In Parliament, however, the issue is stuck in a rut and seems to be going nowhere. The same groups of MPs who have been hostile to animal research for years are still agitating against it. And too many MPs are taking an ill-informed and irrational approach; they should look again at the issue, and examine the facts more carefully.

The discussion has been much aided and enlightened by a recent report from a working party of the Nuffield Council on Bioethics, which released the lengthy report of its two-year investigation into the ethics of animal experimentation in May 2005. The working party, which included scientists from academia and industry, representatives of animal protection groups, philosophers and ethicists, attempted to define and expand the middle ground to see where agreement could be reached. They noted that issues raised by research involving animals had aroused intense debate in the UK—indeed, it was described as the most controversial issue the Nuffield Council had ever studied.

Their report sets out the main arguments on the science, ethical and welfare issues of animal use. Although it lacks any particularly novel insights, it presents a very complete and detailed analysis of these issues and has injected a calm, reasoned and balanced perspective into an otherwise highly polarised debate. It is yet another in a series of reports which builds on the middle ground and sidelines the extreme views of animal rights groups.

Morality or science?

Throughout the world people enjoy a better quality of life because of advances made possible through medical research and the development of new medicines and other treatments. A small but vital part of that work involves the use of animals—something that is strongly opposed by anti-vivisection campaigning organisations in a bitter struggle that has gone on for well over a century.

The use of animals in scientific and medical research may be controversial. But there is no doubt that mainstream medical and scientific organisations agree that it is essential for medical progress. For example, a Royal Society report stated in 2004 that: ‘humans have benefited immensely from scientific research involving animals, with virtually every medical achievement in the past century reliant on the use of animals in some way’.

Anti-vivisectionist groups, however, argue that it is morally wrong to use animals in research, and that it is bad science. These two arguments do not always sit well together: if it is morally wrong to use animals, then it does not matter what the science is; and if the science is flawed, then it should cease anyway—there is no need to invoke a moral argument.

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When a House of Lords Committee examined these issues in 2002, they concluded ‘that it is morally acceptable for human beings to use other animals, but that it is morally wrong to cause them unnecessary or avoidable suffering’. The Nuffield Council working group took a less clear-cut line. Overall, the members concluded that animal experimentation creates a moral dilemma. They thought that it is morally wrong to inflict suffering on animals for human benefit and morally wrong to let humans suffer by not using animals in experiments to develop better treatments for disease. However, different members of the working party had different views about the best ways of resolving this dilemma.

The most prominent allegation by anti-vivisection groups is that animal research is cruel. Many claim that animals are tortured, and another frequent complaint is that animal research is all about profits. But it is hard to see how anyone would make a profit from torturing animals, or why medical research charities, who are trying to find cures for debilitating illnesses like diabetes, cancer or AIDs, would spend their money torturing animals.

To support their claims of cruelty, anti-vivisectionists point to information from undercover investigators acquired during so-called infiltrations. In one of these, workers were punching beagles—a clear example of mistreatment. This incident, now ten years old, was widely condemned by the scientific community. To say that it reflects all practice in a modern research centre is like saying that all animal lovers are violent just because some extremists lob bricks through windows in the middle of the night. Detailed and time-consuming investigations of their more recent infiltrations have found than none of their major contentions has been true.4

The very rare instances of poor practice do not reflect the exceptionally high animal welfare standards that exist in the UK. Yet anti-vivisection groups try hard to make their allegations stick. They use very carefully edited film to give the worst possible impression: in one case they assembled film footage to create a sequence of events that did not actually happen. And they invariably use highly emotive language and images, and offer simplistic arguments that paint a distorted and inaccurate picture of research. Their publications create the impression that brain surgery on monkeys is typical of research using animals, whereas research on monkeys, dogs and cats combined is less than 1 per cent of animal research. Most experiments involve rodents or fish—medical research in the UK actually uses 25 times more fish than dogs.3

It would be wrong to gloss over the fact that some animals do suffer in research. The idea that thousands of vets, animal technicians and researchers go to work every day to perpetrate cruelty to fish seems far-fetched. But, just as a person suffers when they get cancer, so an animal will get some of those symptoms. This is where we have a duty to maintain the highest animal welfare standards and reduce suffering. Every year thousands of visitors, including schoolchildren, visit animal research centres in the UK. What they mostly see is mice running around in cages, and the people they meet are trained animal welfare technicians who have chosen to work there because they want to look after animals.

Medical progress and independent inquiries

The aims of the scientific community are to gain the benefits from animal research with minimal suffering and distress. What are those benefits, and what about anti-vivisection claims that there are none?

Animal research has played a vital role in most major scientific and medical
advances. It continues to aid our understanding of a variety of medical conditions, ultimately leading to the development of new preventions, treatments and cures. It seems bizarre that the anti-vivisectionists argue that all animal research is bad science—the benefits are so clear cut. For example, over 70 per cent of Nobel Prizes in medicine have involved the use of animals. And the scientific consensus is so strong that animal research is a valuable method: there is no credible scientific or medical organisation anywhere in the world that agrees with the anti-vivisectionists.

Examples of medical advances that have been dependent on the use of animals at some point in their development include safe anaesthetics, blood transfusion, penicillin and other antibiotics, vaccines against polio, measles and meningitis, and drugs to treat asthma, hypertension and leukaemia. Animal research remains essential today because we face many unsolved medical problems. Our children suffer with life-threatening genetic conditions such as cystic fibrosis or muscular dystrophy, our friends may die prematurely from cancer or heart disease, and our old age may be blighted by Alzheimer’s and Parkinson’s disease. And in poorer countries, millions are still dying from malaria and newer scourges like AIDS.

Anti-vivisectionists argue that it is impossible to extrapolate from animals to humans because of species differences. Although we must interpret the results of all research with caution, it is a hopeless oversimplification to suggest that all animal research is flawed just because there are some differences between humans and animals. Animal research will continue for the foreseeable future because it is a valuable research method and essential for medical progress.

Unfortunately, decision-makers—such as MPs—are not necessarily scientifically literate and may not be well equipped to assess competing claims about the scientific basis of research. Also, from time to time various media commentators pick up on suggestions that animal research is bad science and write ill-informed articles on that basis. Anti-vivisection groups have therefore devoted considerable resources to campaigns to undermine the scientific basis of animal research. There are even anti-vivisection organisations, usually with the word ‘medical’ in their title, devoted to arguing against animal research on scientific grounds.

Those MPs who have an inherent dislike of animal research adopt the idea that it is bad science with great enthusiasm, because it provides an easy way to avoid the ethical issues. Any debate about whether the medical benefits of medical research are justified can simply be dismissed, since they can claim that there are no such benefits. These same MPs are often to be found calling for a full scientific inquiry into animal research—as if we haven’t had enough of those already.

There have been three major independent inquiries in the UK into animal research in the past four years (carried out by a House of Lords Select Committee, the Animal Procedures Committee6 and most recently the Nuffield Council on Bioethics). None of these committees had a vested interest in animal research. All included people with non-scientific backgrounds. The reports examined all aspects of the debate, and considered the scientific arguments in depth. They all concluded that animal research provides information which can be of relevance to humans and does lead to medical benefits. In every case they rejected claims by anti-vivisection groups to the contrary.

The House of Lords Select Committee stated in 2002: ‘On balance, we are convinced that experiments on animals have contributed greatly to scientific advances, both for human medicine and for animal health. Animal experimentation is a valuable research method which has proved
itself over time.’ The Nuffield Report stated ‘Animal research has been, and can potentially be, scientifically valid, in that it is possible to extrapolate from animal models to humans (or other animals) in specific cases . . . [and] certain animal models have played significant roles in the study of particular diseases and have led to the development of effective interventions.’

Anti-vivisection campaigns and public opinion

Anti-vivisection groups—some of the most persistent campaigners in history—are increasingly adopting complaining as a campaign tactic. Over the past few years, various anti-vivisection groups in the UK have pursued numerous legal challenges to medical journals, the Press Complaints Commission, the BBC, the Parliamentary Ombudsman, the Advertising Standards Authority, the National Audit Office and the Information Commissioner.

For example, one anti-vivisection group has taken the Home Office to the Parliamentary Ombudsman over summaries of research projects. The group claims these summaries—which have been published on the Home Office website since the start of 2005—are inadequate, self-serving and ‘a smokescreen for further secrecy by the government’. In fact they provide more information than is given by any other country in the world.

The House of Lords Select Committee thought that ‘sentimental and sometimes misleading information is disseminated by some anti-vivisection groups’, but there is little chance that anti-vivisection groups will heed pleas for a more reasoned public debate: in response to the Nuffield Council’s call for ‘balanced’ literature, the British Union for the Abolition of Vivisection responded ‘while we are happy to acknowledge the claims of researchers, we do not agree with claims about the scientific benefits of animal experimentation and therefore cannot “represent” them in our literature’. Animal rights extremists and anti-vivisection groups operate in a public and political environment that is only minimally sympathetic to them. Public opinion in the UK is largely supportive of the use of animals in medical research. The most recent of several polls by MORI, conducted in 2002 and published in March 2003, revealed that almost 90 per cent of those surveyed were conditional acceptors of animal research—that is, they accept the need for animal research provided it is for medical research purposes, that it avoids unnecessary suffering, and/or that it is only allowed when there is no alternative. Moreover, a large majority of those surveyed in MORI polls from 1999 onwards are strongly opposed to animal rights violence.

The public and political debate has been distorted in recent years by animal rights extremism. Extremism has tended to stifle public discussion and make the debate more polarised. On the other hand, it has forced the government, media, and perhaps the public, to take a long, hard look at the issues.

The Nuffield Report and the future

People want animals to be used only when absolutely necessary. Today, animal research accounts for, at most, 10 per cent of all medical research worldwide. But the development of direct replacements for animals is a slow and difficult process. Other methods of research, including the study of tissue and cell cultures, computer simulations, and studies of human patients and populations are used wherever possible and are generally complementary, not an alternative, to the use of animals.

While we still need animals in research it is important to safeguard their welfare (refine their use) and use them in
minimum numbers consistent with obtaining meaningful results (reduce their use). Thus replacement, refinement and reduction—the ‘three Rs’—are central to the way that animal research is conducted today, something that is enshrined in the strict UK controls on animal research under the Animals (Scientific Procedures) Act 1986.

Despite the diverse views on the Nuffield working party, there was a large area of agreement about issues such as the three Rs, the need for effective regulation and the importance of an informed public debate on the issue. Their report stresses the need to improve transparency and openness to improve the quality of debate. It recommends that the Home Office should make available retrospective information about levels of animal suffering, as well as improving the presentation of such information. It also recommends researchers take ‘a proactive stance with regard to explaining their research, the reasons for conducting it, the actual implications for the animals involved and the beneficial outcomes they intend for society’.

Perhaps the Nuffield Report will generate more reasoned public debate. Perhaps, post-Nuffield, we can look forward to a time when animal research is considered a normal and accepted part of scientific endeavour—albeit one surrounded with important ethical considerations.

Notes
1 Nuffield Council on Bioethics, The Ethics of Research Involving Animals, 2005 (‘the Nuffield Report’).
3 House of Lords, UK Select Committee on Animals in Scientific Procedures, 2002; http://www.publications.parliament.uk/pa/ld/ldanimal.htm