

Discussing animal ethics

Introduction

This activity encourages students to use two ethical frameworks to justify their own general position on animal testing. It then introduces some specific examples of animal experiments that did involve some suffering and asks them to apply the same approach in forming an opinion on these research projects.

The activity

For most groups it may be useful to begin with a general discussion on what we mean by ethics, based on the textbook. Draw their attention to two main ethical frameworks, rights and utilitarianism. Students can then work in small groups to discuss their general position on animal experimentation for medicines. Don't let them get sidelined into discussions on cosmetics or cleaning products. It may be useful to have a general discussion after the first part to check that they are beginning to use the ethical frameworks in their arguments. They may be interested to know that in the experiments described the animals are painlessly killed at the end.

At the end get each group to summarise their arguments.

References

Specification 3.1.5.

Textbook pages 65-68.

The examples are modified from the Nuffield Council on Bioethics report

http://www.nuffieldbioethics.org/go/ourwork/animalresearch/publication_178.html

How Science Works

Hh Some new technologies and new areas of scientific research raise ethical issues. That is to say, they raise questions about whether a particular action is right or wrong.

Hi Decisions and opinions on ethical issues are based on values. An individual's view on an issue may be based upon a religious or moral position.

Hk A utilitarian approach is to argue that the right decision or choice is the one that leads to the greatest good for the largest number. It can also be argued, however, that some actions are wrong, even if they lead to good outcomes

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Is it ethically acceptable to use animals to test new medicines for safety and efficacy?

This exercise is designed to help you think about ethical issues involved in using animals. It assumes that there are good scientific reasons for doing so.

Part 1

General personal position

A range of personal positions on the question are possible.

1. It is always wrong to use animals that can feel and suffer for research to benefit humans.
2. Animals can be used for research to improve human health, but for each research project certain conditions must be met. Some of these conditions might be:
 - It depends on the species of animal, for example it is acceptable to use specially bred mice but not primates.
 - We have to balance the suffering of the animals against the human suffering that may be prevented by the new treatment. The research is only acceptable if it is worthwhile overall
 - It is acceptable to use animals but we have a responsibility for their welfare and must minimise their suffering. Some procedures cause so much suffering that they are unacceptable however useful they might be.
3. It is acceptable to use animals for research, provided we use basic standards of care. This is no different from the ways in which we use animals for food or other human needs.

Decide which position most closely matches your own views and then think about how you would justify this position to someone else. You should read the 'Ethical frameworks for ethical decisions' information in the textbook pages 65-68 to help you explain your position. You are likely to find

1. **Balancing rights** and 2. **Maximising the benefits** the most relevant to this activity

Work in a small group with people with different positions. Each of you in turn should justify your position to the others. Try to use clear reasons. Write down the points you make that you feel are effective in your argument. Think about how any assumptions you are making might affect the quality of your argument.

Part 2

Specific examples of research involving animals

Below are three descriptions of medical research that used animals.

- How would you have justified the research if you had been the researcher? Would you use a rights based or a utilitarian argument?
- Do you find the research ethically acceptable? Justify your opinions using a rights based or a utilitarian argument.

Tetanus vaccine

Tetanus can infect deep wounds releasing a toxin that causes paralysis and death in 60% of untreated cases. Children are routinely immunised against the disease and adults have a booster every few years. Deaths from tetanus are now very rare in the UK.

New batches of tetanus vaccine have to be tested for their efficacy and safety in mice or guinea pigs. Each batch uses between 60 and 100 animals. Animals are vaccinated with the vaccines at different concentrations and four weeks later injected with tetanus toxin. The control group and those who received an ineffective dose of vaccine suffer paralysis and death.

Stroke treatment

About 12% of deaths in the UK are caused by strokes. Many more people suffer permanent disability. After a stroke many damaged nerve cells in the brain do not re-grow, this leads to the limb paralysis or loss of speech typical of stroke patients.

In vitro studies showed that a substance known as anti-MAG might help the nerve cells to re-grow. Rats were treated in such a way as to cause the type of damage found in human stroke victims. Those rats that appeared to have suffered a stroke were given anti-MAG. They improved their motor function compared to a control group not given the drug. The new drug seems promising and a patent has been taken out.

Breast cancer

Survival rates for breast cancer have increased over the last 30 years. One reason is because Tamoxifen is widely used as an effective part of the treatment.

For many years scientists had suspected that oestrogen encouraged the growth of the cancer and that an anti-oestrogen drug should therefore slow it down. However they were unwilling to test the idea for safety and efficacy on humans without first testing it on animals. When a way of inducing breast cancer in rats was developed the drug Tamoxifen was tested in the rats. Rats on Tamoxifen developed far fewer breast tumours than the control group. Rats are now used to test other breast cancer treatments before human trials.