

## **Describe and evaluate the case for and against the use of non-human animals in psychological research.**

Experiments that wouldn't be allowed for ethical reasons, or that would be very impractical if they were, if they involved human participants, are permitted using non-human animals – or at least they have been in the past. This, of course, begs the question as to the ethics of such animal experiments. Some examples of such experiments that wouldn't be permitted today include Harlow & Zimmerman's (1959) study of total social isolation in baby rhesus monkeys, Brady's (1958) executive monkey experiments, and Seligman's (1974) study of learned helplessness. Quite apart from the ethics, greater control can be exerted over the variables under investigation compared with the equivalent human experiment. For example, the Skinner box is an environment that's totally controlled by the experimenter.

Because there's an underlying evolutionary continuity between humans and other species, it's assumed that differences between humans and other species are merely quantitative (as opposed to qualitative). In other words, other species may display more simple behaviour and have more primitive nervous systems than humans, but they're not of a different order. In fact, the mammalian brain (rats, cats, dogs, monkeys and humans are all mammals) is built on similar lines in all these species, and neurons work in the same way. These biological similarities are related to behavioural similarities. So, studying the more simple cases is a valid and valuable way of finding out about the more complex ones, as demonstrated by Skinner's theory of operant conditioning.

Compared with humans, non-humans are mostly smaller and, therefore, easier to study in the laboratory. They have shorter life spans and gestation periods, which makes it easier to study their development – several generations can be studied in a relatively short time. Animal studies also provide useful hypotheses for subsequent testing with humans. For example, Bowlby's (1969) attachment theory was partly influenced by Lorenz's (1935) study of imprinting in geese. Animals can also be used to test cause-and-effect relationships where the existing human evidence is only correlational (as in smoking and lung cancer). There are several constraints on the use of non-human animals and safeguards to protect them. The BPS Guidelines for the Use of Animals in Research (1985, 2000) offer a checklist of points that researchers must carefully consider when planning experiments with living non-humans. These fall under several headings, including legislation, choice of species, number of animals, and procedures (such as reward, deprivation and aversive stimulation). Researchers are obliged to keep suffering to a minimum, both during and following any surgical procedure. This also applies to electric shock and food deprivation, which are the most objected-to treatments. The permitted level of electric shock is controlled by the Home Office Inspectors, who monitor implementation of the Animals (Scientific Procedures) Act (1986). Procedures causing pain are illegal, unless the experimenter holds a Home Office licence. Even then, these procedures should only be carried out if there are no alternative ways of conducting the experiment.

The number of animals used in laboratory experiments has declined in the U.K. and other European countries since the 1970s (Mukerjee, 1997), and a cost-benefit analysis must be performed before any experiment can proceed. This involves weighing up animal pain,

distress and death against acquisition of new knowledge and the development of new medical therapies for humans. But genome-related research is threatening to reverse this downward trend (Hawkes, 2000). Despite the various safeguards, the very existence of the 1986 Act condones the use of animals. Legally, and explicitly, the Act aims to spare animals 'unnecessary' pain and distress. But implicitly, the law accepts that some research will involve suffering for the non-human subjects. The Home Secretary, in granting 'Project Licences', must perform a cost-benefit analysis. But there's no obligation to consider whether the proposed research is really necessary (Seymour, 1996). Also, the Medicines Act (1968) requires that all new medicines undergo a range of tests on animals before they can be tested on humans (Lyll, 1993). So, the law seems to reflect and reinforce the basic assumption that research with non-humans is acceptable, provided certain basic ethical issues are taken into account. There are also more pragmatic reasons for supporting research with non-humans. A group of British scientists - including physiologists and psychologists such as Gray and Blakemore - has called for the Home Office to speed up the process of approving animal experiments. They believe that the procedure is so long-winded that foreign scientists will take all the prizes for medicine, biotechnology and drug research (Hawkes, 2000).

The very existence of safeguards (including legislation to protect animals) could be seen as implicitly defending the use of animal experiments. If the law regulates such experiments, and if psychologists regulate themselves (in the form of the Guidelines), then isn't this ethically sufficient? The objection to this argument is that both the Act and the Guidelines implicitly assume that some animal suffering, under certain circumstances, can always be justified? But can it? According to Gray (1987), the main justifications for animal experiments are the pursuit of scientific knowledge and the advancement of medicine (the medical justification argument). The latter is the strongest argument. But there's an important distinction between asking whether using animals are scientifically useful (in the development of drugs that can reduce human suffering and save lives), and whether it's right that they should be used in this way. Answering 'yes' to the first question is where the ethical debate begins, not ends. The questions relate to human needs and animal rights respectively. Gray (1991) believes that we sometimes have to choose between human and non-human suffering, in which case choosing to reduce the former is justified. This is an argument for speciesism (Ryder, 1990), an extension of the medical justification argument. Not only is it not wrong to favour the needs of one's own species; we have a duty to do so. The speciesism argument takes a special twist when the species in question aren't rats and mice, but our closest evolutionary relatives: chimpanzees and other primates. The scope of the ethical debate about animal rights in recent years has widened to include the idea of equality under the law (Singer & Cavalieri, 1993; Wise, 2000).