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Animals in Research and Education: Ethical Issues

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Scope Note 40

Animals in Research and Education:

Ethical Issues

Laura Jane Bishop and Anita Lonnes Nolen

Scientific enquiry is inexorably tied to animal experimentation in the popular imagination and human history. Many, if not most, of the spectacular innovations in the medical understanding and treatment of today's human maladies have been based on research using animals. However, the use of animals in research and experimentation has been debated, defended, and protested by both individuals and organizations at various levels. Responses range from personal lifestyle decisions and fervent philosophical treatises to strident arguments, violent demonstrations, and direct action. The continuum of attitudes about animals and the human relationship with animals spans the range between those who support no regulation of the human use of animals and those who advocate absolute animal liberation from all human use (see II, Orleans 1993, p. 22).

History

The first recorded experimentation on animals occurred in ancient Rome, but not until the Renaissance did scholars begin serious study of how the body works. Leonardo da Vinci (1452-1519) and other artists and anatomists pursued anatomical investigations of muscle and bone structure. William Harvey (1578-1657) discovered the circulation of the blood via his experiments on live deer. During this period, much live animal experimentation both in England and France was based on the view of French philosopher René Descartes (1596-1650) that animals are incapable of feeling pain. Jeremy Bentham (1748-1832), the English utilitarian philosopher, thought otherwise. In his "Introduction to the Principles of Morals and Legislation" in 1789, Bentham declared, "The question is not, can they *reason*? Nor, can they *talk*? But can they *suffer*? Despite Bentham and others, the belief that animals could not perceive pain persisted in many quarters into the twentieth century. Nineteenth century French physiologist Claude Bernard **[End Page 91]** (1813-1878)-and his teacher, François Magendie (1783-1855)-conducted wide-ranging animal experiments including surgery, use of drugs, and removal of body parts from many species. Bernard argued that while no amount of benefit could justify any harm to human research subjects, even extreme harm and pain for animal research subjects could be justified by the potential benefit to human beings. Although he did use anesthetics in his work after their discovery in 1847, even Bernard's later work was controversial because of the numbers of animals used and the repetitive nature of his research. The experiments of Magendie and Bernard both laid the foundations for animal experimentation as a practice for scientific advance and contributed in large measure to the emergence of the anti-vivisection movement. Public protests over animal experiments conducted in France and the fear that these might come to England led to the passage of the first law controlling animal experimentation, the "1876 Cruelty to Animals Act" in England. This history and the dynamic tension between scientific inquiry and public concern set the stage for the activism and scholarship of the twentieth century.

Since the 1960s, the amount of attention, activism, and scholarship related to animal use has increased at a rapid pace. The modern animal protection movement, led by the Australian philosopher Peter Singer in his book, *Animal Liberation* (II, 1975), based its advocacy on animals' ability to experience pain and suffering (Bentham's argument). Singer's book and other investigations into animal research, such as LIFE magazine's photojournalism piece on pet theft, animal cruelty, and animal experimentation (Concentration Camps for Dogs. *LIFE* (4 February 1966), pp. 22-29), brought the use of animals in research, testing, and education to the attention of the general public. Activists, advocates, laypersons, scientists, lawmakers, and animals themselves, have created the interesting, complicated, and complex history of animal rights and animal welfare over the last several decades.

Worldwide, approximately 35 million animals are used in research each year; the United States alone uses 12 million animals annually—more than any other country. In 1998, the official number of research animals recorded in the United States was 1...

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