

Research and Other Animals

The use of living beings as experimental subjects has long been a “hot” discussion topic. It continues to be an important area of *both ethical and scientific debate*—assigned reading #2 (from the prestigious British journal *Lancet*) and assigned reading #3 (from *Scientific American*) raise both scientific and ethical issues, while assigned reading #4 (from *British Medical Journal*) raises only scientific issues.¹ To be sure, far more attention has been given to the debates centered on ethical issues, but the scientific concerns are equally long-standing and advanced by a prestigious group of scientists and researchers. Beyond the ethical and scientific issues, however, the general area of “research animals” has other important consequences—for example, it has also been a *politically* important topic in various countries since the late 19th century.

This lecture is designed to introduce you to both the history and contemporary state of the general debate, and the lecturer’s focus is more on ethics than on science. This is not meant to imply that the scientific debate is any less important—please feel free to raise these issues if you’d like.

As we consider what ethical issues are raised for veterinarians by this all-important subject, we should remember four important issues.

(1) First, even if a values-based or ethical critique of scientific research using nonhumans as experimental subjects is successful, that fact alone by no means controls the overall importance of the general enterprise of scientific research, which is, as a general concept, truly a broad notion. The scientists and researchers who authored the *Lancet* article (assigned reading #2) were at pains to point out that scare tactics don’t belong in any serious debate about what is at issue when discussing the scientific or ethical issues raised by use of living beings as experimental subjects.

Soon, and it would be prudent to begin now, all medical participants in this debate need to cease from attempts to polarise the issues. The question requires discussion based on merits, not distorted by the rhetoric or tactics of fear. A recent article accused the animal-protection movement of frightening the public, and attempted to persuade the medical world that physical attacks are tactics that are

¹ “Where is the evidence that animal research benefits humans?”, *BMJ* (British Medical Journal) 328:514-517, 28 February 2004, by Pandora Pound et al. Far more aggressive *scientific* challenges to the use of nonhuman animals in contemporary research exist—see for example, Greek, Jean Swingle, DVM, and C. Ray Greek 2004. *What Will We Do If We Don’t Experiment on Animals? Medical Research for the Twenty-first Century*. Victoria, Canada: Trafford.

frequently used by the animal protection community. Such instances are rare and not part of the agenda of the vast majority of animal protectionists who have no interest in damaging science, scientists, or any living thing. [Cites omitted]

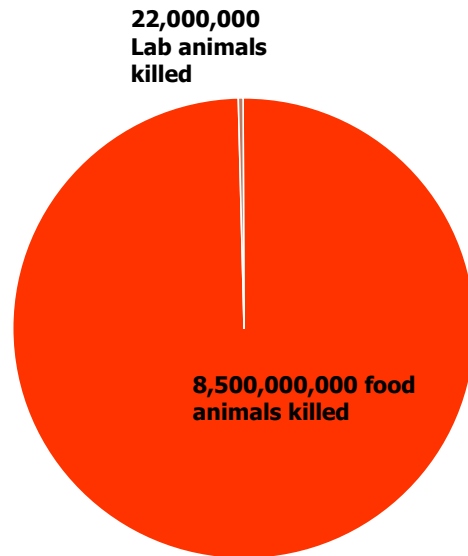
Those who challenge, on ethical or scientific bases, individual experiments or even the general use of nonhumans can in no way challenge the extraordinary accomplishments of scientific research more generally. The highly charged and polarizing accusation that someone is “anti-research” because they challenge an experiment may seriously mislead—in some cases, the challenge amounts to nothing more than a challenge to a particular experiment, one kind of research, or one way of doing otherwise important research. It is rare indeed that someone doubts the validity or value of the scientific and research enterprise generally.

Note, however, that the very raising of either ethical or scientific issues gives some people pause—consider the opening lines of the editor-in-chief in the *Scientific American* articles (assigned reading #3). Caution is in order when raising these issues—there is much at stake. We do so in this course because Tufts’ commitment to ethics and values requires that even tough, unpopular issues be raised if you are to become familiar with important issues in both ethics and science.

(2) Second, “animal research,” as a field, also includes the interesting topic of “alternatives,” that is, alternative ways of doing scientific research that reduce, refine, or replace the use of whole, living beings. The search for alternatives is, in many ways, completely congruent with the most animal-friendly goals of veterinary medicine. We have a separate lecture on alternatives later in the course.

(3) Third, the number of animals used in experimental research sometimes surprises those who recognize that this area has drawn so much attention from science-based critics, philosophers, and, of course, the general group referred to as “activists.” Consider the numbers in the following chart:

Animals Killed for Food vs. Animals Used in Research (Including Rats and Mice) 2002 – USDA Figures



Fourth, as alluded to by the *Lancet* authors, the debates are all-too-often highly polarized debates because so much is at stake scientifically and ethically.²

Debates regarding use of nonhuman animals in research continue to be very heated—how the veterinary profession, which clearly has relevant skills and ethical commitments, might in the future respond to both specific and general issues will surely continue to be of great interest.

Of significance is that even a cursory survey of attitudes within the profession, within scientific circles, and within society as a whole range reveals extreme variability of views on the issue of “research animals.” These diverse views run along a busy, long

² An example of the bitterness of the debate can be found in the following series of articles between two scientists who challenged the chapter on research in Peter Singer’s *Animal Liberation*. (1) Russell, S.M., and Nicoll, C.S. “A dissection of the chapter ‘Tools for Research’ in Peter Singer’s *Animal Liberation*.” *Proceedings of the Society for Experimental Biology and Medicine*. Vol. 211/2 [1996]: 109-138; (2) Peter Singer. “Blind Hostility: A Response to Russell and Nicholl.” *Proceedings of the Society for Experimental Biology and Medicine*. February 1996, Vol. 211 No.2. pp.139-146; and (3) Sharon M. Russell and Charles S. Nicholl. “Reply to Singer’s ‘Blind Hostility.’” *Proceedings of the Society for Experimental Biology and Medicine*. February 1996, Vol. 211 No.2. pp.147-154.

continuum—at one side are views that use of whole nonhuman animals is the only way to ensure scientific progress, while at the other end are outright condemnations of any and all such research. Consider how such views are held—the following opinion comprises the *personal view* expressed by Dr. Charles Mayo, founder of the Mayo Clinic:

I abhor vivisection. It should at least be curbed. Better, it should be abolished. I know of no achievement through vivisection, no scientific discovery, that could not have been obtained without such barbarism and cruelty. The whole thing is evil.³

Contrast Mayo's views with those of Robert J. White, professor of surgery at Case Western in Cleveland, who in 1971 argued that "antivivisection theory and practice have no moral or ethical basis."⁴ In 1990, White criticized the *Hastings Center Report*, a prestigious biomedical journal, which advocated a middle ground position, namely, that some, but not all, animal experimentation is justified. White sent a letter of complaint, printed later by the journal itself, saying that the original article "quite frankly, has no right to be published Animal usage is not a moral issue or ethical issue and elevating the problem of animal rights to such a plane is a disservice to medical research and the farm and dairy industry."⁵ Note that White links any challenge to use of nonhumans to some very large and vested human interests beyond the research establishment. White was known for some fairly strong opinions, given that earlier (in 1988) he had argued that federally mandated IACUC (Institutional Animal Care and Use Committee) review of animal experiments "shackles" the experiments.⁶

There are, of course, many intermediate positions. The following story from a university in Canada raises nicely some of the complex issues recognized by researchers and others as possible tensions in the use of living beings for research purposes.

**U OF G HOLDS ANNUAL SERVICE
TO REMEMBER RESEARCH ANIMALS**

March 21, 2002

Guelph Mercury

Page A3, Kerry Thompson

³ Quoted by William H. Hendrix, *New York Daily News*, Mar. 13, 1961.

⁴ White, R. J., "Antivivisection: The Reluctant Hydra", *The American Scholar* 40:503-7.

⁵ White, R. J., 1990, "Animal Ethics?", *Hastings Center Report*, November/December, page 43. The original article is Donnelley, S., and Nolan, K. (eds) 1990, "Animals, science, and ethics." Special Supplement to the *Hastings Center Report*, May/June, 32 pages.

⁶ White, R. J., "The Facts about Animal Research", *Readers Digest*, March, pages 127-32.

Five dozen people gathered at a small stone on the University of Guelph campus Wednesday, to, according to this story, acknowledge the contribution of animals used in teaching and research.

The memorial service began in 1993, the first of its kind at a North American university, and has continued annually under psychology professor Hank Davis. Davis, who addressed the participants in a lecture hall before laying flowers at the stone near the University Centre, said the contribution of animals is not often addressed in a formal manner.

"Humans memorialize many things—we want to remember the animals we used." Remembering the animals, rather than thanking them, he continued, seems a more fitting gesture. "To thank the animals seems logically inappropriate. Their contribution was taken, not given."

While these Canadians in the University of Guelph research community did not purport to speak for all of the diverse groups that have a stake in using nonhuman animals as experimental subjects, their story can be used to introduce the obvious gravity of any researcher taking a life for research purposes. All of us know that many researchers are all too aware that the calculus by which lives are ended in order to advance research is not an easy or unfeeling one, but a matter of the utmost seriousness. At the same time, all of us are aware that the literature on research practices includes statements by other researchers whose words suggest a callous attitude toward the living beings involved in research. There is much sensitivity, then, in some circles, even as in other circles there appears a phenomenon sometimes called “conditioned ethical blindness”, that is, people becoming so used (“conditioned”) to a situation that they no longer see (and are thus “ethically blind” to) the obvious, inherent moral issues raised by the situation.⁷

Roles and Challenges for Laboratory Animal Veterinarians

While not nearly as many of you will practice laboratory animal medicine as will practice companion animal medicine, research animals are nonetheless an important area about which you will be asked many questions during your decades of practice. It is an area, to be sure, where *major changes have taken place in recent years*. There are, for example, important federal laws protecting laboratory animals (among other things, these mandate IACUCs and their procedures). Bernard Rollin argues that federal government’s action in

⁷ The oldest cite I have found to this term is at page 160 of Peter Singer’s original edition of the edited collection *In Defence of Animals*, in the Don Barnes essay, where it appears Barnes is coining the term (he says, his previous work “represented what I choose to call ‘conditioned ethical blindness’”). The cite is Barnes, Donald J. 1985. “A Matter of Change”, pp. 157-167, at 160, in Singer, Peter, ed., 1985. *In Defence of Animals* (New York: Basil Blackwell).

imposing strict standards on laboratory animal practices betokens a changed social consensus regarding nonhuman animals generally.⁸ After commenting that government officials and veterinarians have suggested to him that the new regulations embody very basic and minimal *moral* rights for nonhuman animals, this respected philosopher and leading veterinary ethicist adds, "I believe that the model of research animal welfare is a weathervane assuring future changes in animal use in other areas...."⁹ (FYI, in the September 15, 2005, edition of JAVMA there is a report on Rollin's presentation to the AVMA's annual meeting—Rollin argued that, based on increasing awareness of the changed rearing conditions for *production* animals, a similar change in social values has recently been taking place in society regarding food animals—more all on such issues when we look at farm animals later in the course.)

Whether Rollin is right or not, research animals are now a matter of public concern and raise, in the opinion of a striking majority, basic ethical questions.

One area arising constantly in the research animal context is the increasingly high profile of discussions regarding **pain relief**. It will surprise some of you that a major concern for pain among nonhumans has only recently emerged in veterinary medicine (indeed, it has only recently emerged for *human* neonates as well). A leading expert on pain relief related this story when lecturing in previous years in this class:

In 1982, a veterinary tech with whom the lecturer worked cherished and even loved the experimental animals for whom she cared. Even in such optimal circumstances, this caring vet tech did not notice post-operative pain in the experimental animals.

Even if pain management has only recently moved out of its infancy, today it has a major presence at TCSVM. In society at large, however, the pain issue remains an emerging topic. Many clients now demand pain relief for their companion animals (see, for example, the widely available *Pain Management for the Small Animal Practitioner*). Of particular relevance to the topic of research animals, pain is often the most critical factor for the public when assessing the moral acceptability of experiments on certain nonhuman animals. For an increasing number of professionals in laboratory animal medicine, comfort of experimental animals is as a primary goal and ethical obligation

⁸ Rollin, Bernard E., *An Introduction to Veterinary Medical Ethics: Theory and Cases*, Ames: Iowa State University Press, 1999, introductory essay, especially at 48-50.

⁹ Rollin 1999, 50.

(see, for example, McMillan's two 1998 JAVMA articles on this topic—JAVMA 213(5) 628-630 (1998) re pain not being clinically beneficial, and JAVMA 212(9) 1370-1374 (1998), "Comfort as the primary goal in veterinary medical practice"). Others continue to play down the importance of pain relief in experimental settings.

There are abundant materials on practice and ethical issues at the websites of major groups such as the American College of Laboratory Animal Medicine (www.aclam.org) and the American Association for Laboratory Animal Science (www.aalas.org).

Here's some additional reading if this topic interests you:

- (1) Morrison, Adrian 2001. "Personal Reflections on the 'Animal-Rights' Phenomenon" by Adrian Morrison, *Perspectives in Biology and Medicine* 44:62-75 (2001)
- (2) C. Ray Greek and Jean Swingle Greek, *Sacred Cows and Golden Geese: The Human Cost of Experiments on Animals*
- (3) 1989 statement on "Building the Case" from *Saving Lives: Supporting Animal Research—A Resource Notebook for Institutional Leadership* from the Association of American Medical Colleges
- (4) 1992 materials "Facts about Medical Research and Animal 'Rights'" from *Medical Progress—A Miracle at Risk Resource Kit* from the American Medical Association and the American Academy of Neurology
- (5) 2001 "The Perils of Appeasement" by Steven L. Leary, DVM, *Comparative Medicine* 51(1):11-12 (2001)
- (6) 2001 "Community Outreach: A Call for Cultural Change" by Peter Theran, VMD, *Lab Animal* 30(7) (July/August 2001)
- (8) Grayson, Lesley 2000. *Animals in Research: For and Against* (London: The British Library), Chapter 3, "Legislation and Regulation"
- (9) BBC Report, March 1, 2004, "Scientists Doubt Animal Research"