

THE MORAL QUESTION OF ALTERNATIVE METHODS IN ANIMAL RESEARCH

by

Richard T. Hull, Ph.D.

Philosophy and Medicine

SUNY at Buffalo

Various arguments are given by animal rights activists that alternatives to whole vertebrate animal research and teaching methods can and should be used. This paper seeks to review some of those major arguments, as well as those given in defense of the use of such animals in research. I shall use "vertebrate animal" as synonymous with "non-human vertebrate animal."

A standard line of argument against the use of vertebrate animals in research proceeds as follows: Humans may be used in research only to the extent that they knowingly consent to being subjected to the risks of disruption of normal life, pain, injury and death inherent in that research, since it is immoral to harm an individual, and disruption of normal life, pain, injury and death are harms when they are imposed on an individual without his consent. Vertebrate animals are relevantly like humans in that they may experience disruption of normal life, pain, injury and death just as humans do. Hence, vertebrate animals may be used in research only to the extent that they knowingly consent to being subjected to the risks of experiencing disruption of normal life, pain, injury and death inherent in that research. But vertebrate animals cannot consent. Hence, vertebrate animals may not be used in research.

The traditional responses to this argument have taken one of two directions: they have sought to deny the claim that animals are relevantly like humans, holding that they lack conceptual elements crucial to the claim that they experience disruption of normal life, pain, injury and death as humans do, or they have argued that the benefits to be gained from research and teaching outweigh the harms resulting to experimental subjects, and that this benefit-to-harm ratio is increased by first employing non-human vertebrate animals before proceeding to human clinical trials or to use of humans in teaching.

To the former response, that vertebrate animals, lacking cognitive elements essential to the experience of suffering in humans, are not relevantly like humans, activist apologists have argued that there are classes of humans who lack such conceptual sophistication, but upon whom we regard harmful experimentation to be morally repugnant, and that animals are relevantly like these humans: both feel pain, both are capable of conditioned apprehensive responses, neither can give an informed consent, and so forth. Thus, relevant moral similarity exists between, for example, the profoundly retarded human and the laboratory dog, so that to protect the one from harmful experimentation and to exploit the other is a form of speciesism--the favoring of members of one species over those of another where the differences are not morally relevant.

This argument has recently been countered by noting that there is at least one morally relevant characteristic of a conceptual and sentient nature that is true of the retarded human that is not true of the other vertebrate animal; the retarded human, but not the dog, has already

sustained a profound and grave, irreversible harm--the loss of his or her potential for full, robust personhood. No such loss has been suffered by the laboratory animal in possessing cognitive capacities comparable to those of a severely retarded human. Were retarded humans of a different kind than normal humans, such that it would not be true that they had suffered such a loss, they would be similar to the dog in morally relevant ways but dissimilar to humans in the morally relevant ways that make us not loath to subject them to the range of experimental procedures we visit upon animals.

It is to the other response, which holds that it is the favorable risk-benefit ratio that justifies experimentation on animals, that provides the activist with the greatest argumentative leverage. First, activists claim that experimentation directly on humans would much more quickly move us towards advances in our understanding of human disease and disorder than would employment of animal "models," since no non-human animal is just like human animals in all respects which might relevantly impact on any given disease or disorder process. Indeed, major criticisms have been leveled at cancer research, which "proceeded for decades in animal models without substantial progress towards curing or controlling cancers that are unique in their human etiologies," and at AIDS research which, according to one critic, "has proceeded on a supposed viral etiology that ignores the possibility of the syndrome being a multifactorial condition unique to the human organism under a variety of assaults including, but not limited to, viral ones." Indeed, activists argue that injustice to humans lies in animal research on human diseases, for such

research delays the development of effective treatments and thus prolongs the agony of patients and their families who, with a more aggressive, human-subject-centered campaign, might be brought into remission or to a cure sooner. Thus, the claim is that there is a greater risk/benefit ration to directly end exclusively experimenting on humans (even at the expense of such niceties as liberty and consent), than through diversionary research on animals.

Second, even if the activist claim in this first instance is false or impracticable (it appears to be an empirical claim, but it has pragmatic, political dimensions as well), the pressure remains: given a whole animal protocol and an alternative methods protocol with comparable expectation of yield, risk/benefit analysis would always favor the alternative methods one, since risk is so far conceived as risk of harm to a subject of experience, and alternative methods are, by definition, void of subjects of experience. Even if one argues that such other risk factors as monetary cost should be factored in, it will be difficult to convince an activist that \$2000 for a tissue culture involves greater risk of harm than \$200 for a rabbit, since the impact of the \$1800 difference would, given suitable social arrangements, inconvenience 180,000 persons but a penny each --a negligible harm.

Proponents of whole animal research are left with a limited number of strategies at this point. First, they may argue that there is far less by way of fully developed, equivalent alternative methods available for the basic and applied research than the activist claims. And we have heard a substantial amount of such argumentation in this evening's presentations.

It is a feature of fundamental, basic research that it probes the unknown; the impact of new drugs on whole animals is of vital importance to assessing both safety and efficacy, although site delivery technologies may render that less important than it has been with system administration. Second, proponents may argue that the quantity of animal pain in research is vastly overrated by activists. This argument, to be effective, must rest upon scrupulous use of anesthetics and analgesics, together with the practice of not proceeding with animals that resist anesthesia. But this argument also must turn upon a careful analysis of the concept of suffering, to demonstrate its cognitive as well as sentience components, so that the blanket assertion of animal suffering may be effectively countered. Such, in part, is the work of philosophers.

Third, proponents may wish to investigate the presumption by virtually all activists and many research scientists that death is an evil which must be justified in all cases. Medical science especially, but biological science generally, has a reverence for life which moves many into the service of its investigation and preservation. Depending on whether we view death as a part of life or as antithetical to it, we may come to see that animal killing, done painlessly and quickly, is on a moral par with anesthetizing animals. Uncritical and absolute respect for life, contrary to Schweitzer, may lead to a kind of tyranny which may be imposed on humans struggling to affirm and maintain other uniquely human values--self determination, the creation of a life plan, the capacity to devote oneself to lives already in process, the capacity to feel obligation, the capacity for abstract sympathy, the capacity to evaluate one's own feelings and desires.

The use of animals in teaching poses special challenges to the defender

of whole animal employment. First, unlike research, it is inherently repetitive, the the same or similar preparations repeated for each medical school class, theoretically for each medical school. Second, numerous medical schools have eliminated the use of animals from one or another area of their pedagogy. If data exist demonstrating inferior preparation of their students using alternative methods, they should be well publicized-in part, in the interest of protecting the public against poorly-trained physicians, and in part to defend in vivo use of animals in teaching. Third, the very willingness of medical schools to permit students to opt out of such exercises (with the understanding that they are, of course, responsible for the material), while understandable as a humane way of honoring the students sensitivities, can be seen as an admission that exposure to whole animal preparations is in fact not necessary to the physician's training.

In sum, animal activists' pressure to adopt alternative methods gains credence from minimax, risk/benefit ethical arguments which researchers tend to endorse. The concepts of suffering and of death must be more clearly examined and understood by those who would hope successfully to rationally counter or limit those demands. Finally, researchers may wish to work more closely on the questions of relevant differences between animals and humans that might justify differential consideration of their interests, and why the existence of such differences doesn't undermine the credence of animals models for human diseases, disorders and processes.

I have reviewed only some of the arguments given against and for the use of vertebrates in research. Clearly there are others which merit scrutiny. My point, rather than having been to provide an exhaustive, and exhausting survey, has been to indicate what some of the major ones are and to attempt

some diagnosis of their relative effectiveness. I have also tried to give something of the context in which the other presentations from this evening may be viewed.

Especially because this is a university in which research and teaching is supported by tax dollars, I believe that it is highly desirable and appropriate for university researchers and teachers to provide, from time to time, an accounting of their activities to the public. Not only is it educational, it is a proper function of those of us whose work is supported by public funds to give an accounting of how those funds are spent, and specifically to respond to critics who claim that their tax dollars are spent unwisely. I believe it is the hope of the panelists here tonight that they have provided such a response to a set of general concerns.

The floor is now open for those of you in the audience who have follow-up questions of the panelists, either collectively or individually. We ask only that you limit your questions to the general topic of alternative research and teaching methods.