# Brian Schrag's Commentary on "Changing the Subject"

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Changing the Subject

The case describes an experimental procedure conducted on a particular kind of animal (a procedure that in fact is actually and routinely carried out on the animal) and raises the fundamental issue of how we justify conducting research on animals that we would never justify conducting on humans.

One might ask whether the "facts" of the case really do or can remain the same whatever animal is "plugged in." Are the facts equally appropriate, for example, whether the animal is a monkey or a cockroach? Would carbon dioxide really be the anesthetic of choice in both cases? If it is not necessary as an anesthetic in the case of the monkey, would it really be necessary to allow the monkey to regain consciousness during the experiment? Would removal of limbs (as opposed to some restraining devices) really be necessary on monkeys?

Given these sorts of considerations, one might think it is not sensible to expect to test our intuitions about ethical treatment of animals by imagining our responses if we "plugged" various animals, including humans, into a single experimental design of this sort. Nevertheless, one should not dismiss the issues raised by such a thought experiment too quickly. However one resolves the question of the universality of this particular experiment, it is certainly reasonable to assume that one could consider a complex of cases that raise the same issues.

One could imagine, for example, experiments devised by an "alien" that inflict this sort of pain and suffering on humans. One can identify experiments devised by humans (e.g., the use of rats to assess the pain experienced by humans in burn injuries)See for example, Patricia F. Osgood, "The Assessment of Pain in the Burned Child and Associated Studies in the Laboratory Rat," ILAR NEWS 33 (1-2, Winter/Spring 1991): 13-18. that appear to subject higher vertebrates to pain and suffering similar to that inflicted in this case. Finally, actual experimentation on

invertebrates results in the behaviors and reactions described in this case (however one interprets those behaviors).

Suppose for the sake of argument that this particular experiment were to be performed on a variety of species. Would we think the moral justification for applying or not applying this same experiment would differ for different animals, including humans? If so, to what criteria would one point to justify the difference?

That our actual standards and review procedures for experimentation on humans differ from those for animals reflects the fact that most persons assume that scientific protocols involving human subjects should be assessed differently than protocols involving animals. However, there is currently no consensus in the ethics community regarding the moral criteria for determining when, if ever, experimentation on animals is justified.For an excellent recent collection of essays featuring an exchange of views by leading ethicists and scientists on the use of animals in research, see Ethics and Behavior 7 (2, 1997).This lack of consensus reflects some absolutely fundamental disagreements regarding the nature of humans and their relation to other animals as well as fundamental disagreements over core concepts in morality.

One can identify a spectrum of positions on this question.For a brief overview of the issues, see Deni Elliott and Marilyn Brown, "Animal Experimentation and Ethics," in Deni Elliott and Judy E. Stern, eds., Research Ethics: A Reader (Hanover: University Press of New England, 1997), pp. 246-259. I will summarize the positions of four ethicists to illustrate that spectrum. Some would argue that there can be no moral justification at all for experimentation upon animals. One argument for this view starts from the position that we recognize humans have moral rights. Moral rights place limitations on what people are free to do to each other. Because humans have moral rights, we reject the notion that it was acceptable for the Nazis to perform hypothermia experiments on prisoners simply because the knowledge gained could benefit other humans. The source of our human rights, so the argument goes, is that we are sentient creatures; we have a capacity to experience pain and pleasure. But if that is true for humans, it is also true for many species of animals. Sentient nonhuman animals have the same moral rights as humans in this regard and should no more be experimented upon for the benefit of humans than we should experiment on prisoners, children or any other humans simply for the benefit of other humans. On this view, experimentation on nonhuman sentient animals is unjustified and should stop now. The interests of humans cannot outweigh the rights

of rats. If there are some things we cannot learn because we cannot experiment on animals, so be it.See Tom Regan, The Case For Animal Rights (Berkley: University of California Press, 1983). For his own summary of his views, see Tom Regan, "The Rights of Humans and Other Animals," in Ethics and Behavior 7 (2, 1987): 104-111.

At the other end of the spectrum is the view that there is nothing wrong with experimentation on animals. One view accepts that many animals are sentient creatures, and for that reason humans have an obligation to not to avoid gratuitously inflicting pain and suffering on them. However, there is no parallel between Nazi experimentation upon humans for the benefit of other humans and experiments on rats for the benefit of humans. Humans have moral rights; rats do not. The moral status of humans and animals is very different. That difference does not arise from particular cognitive properties of humans such as self-consciousness, rationality and the ability to communicate. Rather, the human species is unique among animal species in having a capacity for moral reasoning and discourse; only humans are capable of grasping and laying down moral laws for themselves and others. Consequently, only the human species is capable of having and being in a moral community. Moral community is a necessary condition for having moral rights. Thus we do not violate the rights of animals when we experiment upon them for the benefit of humans, and it is acceptable to do so.Here I summarize the argument of Carl Cohen, "Do Animals Have Rights?" in Ethics and Behavior 7 (2, 1997): 91-102. See also Carl Cohen, "The Case for the Use of Animals in Research," New England Journal of Medicine 315: 865-870.

A third view denies that moral standing and moral rights are necessarily tied uniquely to members of the human species as specified in the previous position.See Tom Beauchamp, "Opposing Views on Animal Experimentation: Do Animals Have Rights?" Ethics and Behavior 7 (2, 1997): 113-121. Rather, moral standing in creatures is tied to properties of creatures that warrant giving them the protection of morality. If a being has moral standing, it also has moral rights. Acknowledging that a being has moral standing is to recognize that it has interests that humans must take into account; that also distinguishes it from beings whose interests have less moral weight. Certain cognitive properties are frequently invoked as the criteria for assigning moral standing. Thus, it is often suggested that self-consciousness, purposive action, capacity for language, capacity to make moral judgments and rationality are properties that justify assigning moral status to a being. But it is plausible to argue that certain nonhuman animals posses some of these qualities

and sometimes at a higher level than some humans (e.g., infants or demented adults). Furthermore, it is not clear why only these qualities are relevant to assigning moral standing. Why should not the capacity to feel emotion (note the recent work on the emotional life of animals) or pain be sufficient to give a creature a degree of moral standing? "The question is not, Can they *reason*? nor Can they *talk*? but, Can they *suffer*?"Jeremy Bentham, The Principles of Morals and Legislation. Chapter 17, Section 1. The fact that animals can suffer imposes some obligation on us not to inflict pain on them and to recognize that infliction of pain is wrong no matter what the benefits. At minimum, this imposes upon humans an obligation not to exceed certain limits in the infliction of pain in other animals. (Setting acceptable levels of pain in experimentation on animals is required by law in some countries, but not the United States.See F. Barbara Orlans, "Ethical Decision Making About Animal Experiments," Ethics and Behavior 7 (2, 1997): 123-136.) On this view, we may be justified in conducting certain animal experimentation, but we are justifiably constrained to not exceed certain levels of pain no matter what the benefits to humans and otherwise constrained by the amount and type of pain inflicted as well as the merits of the research.

A fourth view holds that how we treat humans and animals in experimentation should be determined on the basis of the value of their lives, which is, in turn, a function of the quality of their lives.See R. G. Frey, "Moral Community and Animal Research in Medicine," Ethics and Behavior 7 (2, 1997): 173-184. Thus, moral standing is not determined by an appeal to moral rights. Rather, moral standing is determined by whether a creature can be an experiential subject, capable of having a series of experiences that can make the creature's life go well or not depending on the quality of those experiences. It has a welfare that can be improved or negatively affected by what we do to it. Normal adult humans fall in this category, but so do demented patients, frogs and lion cubs. This is so whether or not we agree they all have moral rights or are all moral agents. (Mere adaptation to environment does not count as being experiential. Some creatures, - e.g., plants in general - are not experiential.) Moral standing varies with the quality of life.

The quality of a life is a function of its capacity for richness. A normal adult human with the capacity to appreciate music, literature, science has a richness and hence quality of life not approached by a puppy. Nonhuman animal life, in general, probably would not have the same value as human life because the quality of life is not as high. Nevertheless, even if an animal lacks some of the richness of the normal

adult human, it still has some value, and animals are not to be simply sacrificed the way one might discard broken lab apparatus. It is important to emphasize that on this view, it is not the species to which an animal belongs that determines the value of the life; it the animal's quality of life.

Quality of life includes more than considerations of pain and suffering, although those considerations are morally relevant. On this view, pain is pain, and the species makes no difference in terms of the moral significance of the pain. There is no moral difference in the pain caused by pouring scalding water on a baby or a puppy or a lobster. (One researcher has noted that the mortality rate for human burn victims at the turn of the century was quite high. It is now less than 5 percent, and that decline is directly attributable to experimentation on animals such as rats.Osgood, "Assessment of Pain," p. 15. On this view, such research would be justified.)

It also follows from this view that not all humans have the same quality of life and hence the same value or moral status. It is possible in principle that some nonhuman primate could have a quality of life higher than that of some human. One implication of this view for animal experimentation is that although in general one might justify experimentation on animals on the basis of benefits to humans, there may be instances in which the quality of life of nonhuman primates, say, is higher than that of some humans, and the experimentation should be done on those humans rather than the primates.

The actual standards and regulations guiding experimentation on animals have evolved in the United States over the past 30 years.For a history of development of regulation in the United States, see Nicholas H. Steneck, "Role of the Institutional Animal Care and Use Committee in Monitoring Research," Ethics and Behavior 7 (2, 1997): 173-184. The legal regulations are principally spelled out in the Animal Welfare Act, the Public Health Service Policy on Humane Care and Use of Laboratory Animals, and the Good Laboratory Practices of the Food and Drug Administration. In addition, there are the voluntary regulations of the American Association for the Accreditation of Laboratory Animal Care.For a summary of the relevant U. S. rules and regulations, see B. T. Bennett, M. J. Brown and J. C. Schofield, eds., Essentials for Animal Research (Beltsville, Md.: National Agricultural Library, 1994), pp. 1-7. Reprinted in Elliott and Stern, eds., Research Ethics, pp.246-259. The latter are set forth in the *Guide for the Care and Use of Laboratory Animals*, which is an influential document worldwide.Institute of Laboratory Animal Resources, Commission on Life Sciences, National Research Council, Guide for the Care and Use of Laboratory

Animals (Washington D.C.: National Academy Press, 1996). The Animal Welfare Act requires the CEO of each research facility to create an Institutional Animal Care and Use Committee (IACUC) to ensure compliance with the Act. IACUCs are now the major formal review mechanism in the United States for proposed animal experimentation. The Public Health Service also requires IACUCs for institutions with projects funded by the PHS, and those projects are expected to follow the standards of the *Guide*. The *Guide* is intended to apply to vertebrates and does not specifically address the treatment of invertebrates.Ibid., p. 2. As a general rule, IACUCS do not concern themselves with protocols for the treatment of invertebrates.

There is considerable variation between the United States and some other countries regarding oversight and standards.I draw here on Orlans, "Ethical Decision Making." U.S. law does not require that IACUCs consider the ethical justification of an experiment, unlike the laws of the United Kingdom, Germany, the Netherlands and Australia. Those countries require that institutional review committees weigh the ethical cost to the animals against the human benefits derived from the research.

In several countries (not the United States), review boards are required to assess the level of pain to animals likely to be inflicted by the proposed experiment and, if the level is too high to be ethically justified, the experiment is disapproved irrespective of the scientific benefits of the experiment. Systems (scales of invasiveness or pain) to categorize the degree of animal pain in experimentation are incorporated into the national policies of Canada, The Netherlands, United Kingdom, Switzerland, Finland and Germany (but not the United States). The actual effect of such review may depend on who sits on the committees. Researchers understandably have a vested interest in advancing research and little incentive to place the welfare of animals above research. Orlans reports on a survey of licensed animal researchers in the Netherlands: When they reviewed proposed protocols that involved considerable harm to nonhuman primates, the researchers assumed the project was justified and did not question its purpose.Ibid.

The questions "Do animals experience pain and suffering?" and "If so, how could one tell?" are prior to the debate over the trade-off between benefit to humans and the pain inflicted on animals. Even if we allow that animals that are most like humans do experience pain and suffering, what about "lower" vertebrates and invertebrates? Much of the debate over our moral obligations in experimentation on animals and in the guidelines and standards centers on these questions.

Some argue that animals, compared to humans, do not feel pain or as much pain or at least we can never be sure they feel pain, and hence it is acceptable to subject them to experiments that would cause pain and suffering in humans. These questions are in part arguments in conceptual analysis in the philosophy of mind and not empirical questions.See, for example, the following exchange: Peter Harrison, "Do Animals Fell Pain?," Philosophy 66 (1991): 25-40, and Ian House, "Harrison on Animal Pain," Philosophy 66 (1991): 376-379. Even if some animals feel pain, there is still the question of the degree to which various nonhuman species experience pain. Invertebrates are often thought to be suitable replacements for vertebrates in experiments because they are thought to be insentient or at least less sentient than vertebrates. Thus, in the case under discussion, it would matter whether the experimental animal was a monkey or a cockroach.

We cannot resolve these issues here. Nor is it reasonable to suspend scientific research until the conceptual issues are resolved.For an extended discussion on both the empirical and philosophical issues, see Beckoff et. al., "Animals in Science: Some Areas Revisited," Animal Behavior 44 (1992): 473-484. Notice, however, that it would be inconsistent for researchers on the one hand to assume that rats are reasonable models for learning about human responses to pain or the effectiveness in humans of various analgesics, say in burn treatment, and yet assume that we have no idea whether or not rats experience pain.For a discussion of the empirical work on the relation of human to animal pain, see Fred Quimbly, "Pain in Animals and Humans: An Introduction," ILAR News 33 (1-2): 2-3; Francis J. Keefe et. al., "Behavioral Assessment of Pain in Animals and Humans," ILAR News 33 (1-2): 3-13; Osgood, "Assessment of Pain." At a practical level, the proposal found in the *Guide* for dealing with vertebrates may seem the most prudent: "In general, unless the contrary is known, it should be assumed that procedures that cause pain in humans also cause pain in animals."Guide, p. 64.

Even if we assume that vertebrates feel pain, the issue of pain in invertebrates is more difficult. Humans share a basic physiology with mammals, and similarities in neural organization with all vertebrates. Our physiological similarities with invertebrates are much more tenuous. Should we be more concerned than we are with the treatment of invertebrates in research? Can cephalopods (which have the largest brains of all invertebrates), experience anything like what we call pain?For a discussion of the evidence of pain in invertebrates, see Jane A. Smith, "A Question of Pain in Invertebrates," ILAR News 33 (1-2): 25-31. In the absence of clarity on this

issue, perhaps the most reasonable course, as suggested by one researcher, is to follow a principle of respect. That is, when using invertebrates in research, we should maintain the highest possible standards of husbandry and care and, where questions of pain and suffering are concerned, give the animals the benefit of the doubt. That would include avoiding the use of the more complex species where possible, and anesthetizing the animals in procedures that have the potential to inflict pain.Ibid., p. 29.

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