Justifying Animal Experimentation: The Starting Point

Introduction

If the use of animals in scientific and medical research is justified, it seems reasonably clear that it is justified by the benefits that this research confers upon humans. The benefits involved here are understood to include such things as advances in knowledge as well as things more commonly regarded as benefits, such as improvements in disease diagnosis and treatment. Even were we to concede in a particular case that we may be unclear whether something is a benefit or whether the extreme costs we propose to exact from some animal are worth an envisaged benefit, some version of this **argument from benefit** appears to underlie all attempts to justify animal experimentation in science and medicine. This is not to ignore the fact that many of our efforts in fact benefit animals themselves, but I take it that no one would dispute the claim that the vast bulk of research has human benefit, not animal benefit, as its goal. Moreover, we must not think only of the short term: much research does not lead to immediate benefit. Often, it is only later, when the results of the research are put together with the results of other pieces of research (usually done by other researchers), that their long-term import can be detected. More often than not, science and medicine work by accretion rather than by individual instances of dramatic breakthrough.

Benefit and Abolitionism

The argument from benefit is a consequentialist argument: it maintains that the consequences of engaging in animal research provide clear benefits to humans that offset the costs to animals involved in the research. This is an empirical argument and so could be refuted by showing that the benefits of research are not all that we take them to be. This is not the place to undertake an examination of the costs and benefits of the myriad uses that we make of animals in science and medicine, nor am I the person to undertake such an examination. Instead, I want to look at another aspect of the argument from benefit. Therefore, I shall simply assume that, either in the short or long term (or both), the benefits of research are substantive, an assumption that is quite compatible with it also being true that some alleged benefits of research are spurious.

I myself accept some version of the argument from benefit, as do, I think, most people. Those who favor the abolition of animal experiments may dispute that the benefits of these experiments are all that substantial, but I often encounter in argument "abolitionists" who do not dispute this fact. They simply maintain that human gain can never be used to justify animal loss, while conceding that many human advances in medicine have come at the cost of animal suffering and loss of animal life.

There is another position, the **3R approach**, that shares some of the abolitionists' concerns about animal research, but still accepts the argument from benefit, at least at our current state of scientific knowledge. Those who favor the 3R approach to animal research usually support a pro-research position, suitably qualified. The 3R approach seeks (1) to **refine** experiments in order to
diminish animal suffering and/or loss of life; (2) to reduce the number of animals used and the number of experiments performed to obtain or confirm a particular result; and, ultimately, (3) to replace animal subjects with nonanimal models or replace "higher" animals with "lower" ones. In fact, the 3R approach typically is thought today to help define a humane research position, even if and when adopting the approach might require that some piece of research be curtailed on the ground that it is incompatible with one strand or more of the 3R approach.

A humane research position is not an abolitionist position. While abolitionists may themselves be concerned with refinement, reduction, and replacement in animal experimentation, so long as present practices continue, abolitionists cannot be satisfied. They will still object that the 3R approach permits animal research to continue.

Moreover, an abolitionist will not be concerned with exactly how far along a piece of research is, or how likely we are to be able to come up with a nonanimal model for conducting this research in the immediate future. The thought that we may be able to replace animal models with nonanimal models for studying certain diseases is a pro-research thought, if it is also held that this replacement must await the development of nonanimal models for these diseases. Abolitionists reject this conditional approach because it would hold replacement hostage to scientific advances that may lie a considerable period into the future. If an abolitionist had the opportunity to shut down all animal research now-whatever the potential for human benefit, however far along the research, and whatever the state of development of nonanimal models—I take it that the abolitionist would do so. Why a complete shutdown now? Why not a progressive shutdown over a much longer period, during which some experiments would be allowed to run their course, realize some benefit, or evolve into a nonanimal model? The abolitionist's reason is that a progressive shutdown of animal research would perpetuate animal suffering and/or loss of life. Therefore, a progressive shutdown, while it may appeal to those of a more practical disposition, is not typically proposed by abolitionists.

While it is obvious that abolitionists oppose the argument from benefit, it is not evident that many others do so. It is ironic, to say the least, that abolitionism has received so much attention in the media of late at the very time that scientific and medical research seems on the threshold of revolutionary discoveries that will greatly alleviate human suffering. Genetic research involving animals promises new treatments for diseases that previously were thought to be intractable defects in the human condition. AIDS research proceeds apace, with animal research playing a crucial role. One aspect of genetic engineering that is likely to have an impact in the near future involves transforming animals to become carriers of human organs for human transplants. Cross-species transplants-xenografts—that should result from these efforts will benefit the thousands of people who die each year while waiting on queues for human organs. Cloning of animals is another scientific breakthrough that holds out the prospect of genetic replacement as the solution to some presently incurable medical disorders. An enormous amount of genetic engineering in animals is presently underway with the goal of advancing human health care (quite apart from any genetic engineering in animals that has to do with food or meat eating).

With the prospect of such remarkable discoveries on the horizon, I do not think it likely that very many people will embrace abolitionism. The benefits, real and potential, of animal research appear too considerable for us to turn away from them. Yet, lab break-ins, disturbances, and assaults upon scientists by abolitionist fringe groups are already of grave concern to researchers, and these incidents may increase. It is unlikely that such acts will win many converts to the abolitionist cause. In fact, it seems likely that acts of intimidation may well alienate moderates who strive for observance of the 3R approach, who otherwise might see themselves as allies of the abolitionists on some policy proposals. On the whole, then, I doubt that abolitionism is going
to capture the day. The argument from benefit will continue to predominate.

**Animals or Humans?**

The argument from benefit requires closer philosophical scrutiny. For example, with many uses of the argument, the individual who bears the costs is also the individual who benefits; this is not true in the case of animal experimentation. Yet there are plenty of instances in which we impose costs on some to benefit others, as in the cases of conscription or the progressive income tax.

The feature of the argument from benefit that I want to discuss is this: Whatever benefits animal experimentation is thought to hold in store for us, those very same benefits could be obtained through experimenting upon humans instead of animals. Indeed, given that problems exist because scientists must extrapolate from animal models to humans, one might hold that there are good scientific reasons for preferring human subjects.

Accordingly, any reliance upon the argument from benefit, however hedged and qualified that reliance may be, has to be accompanied by a further argument establishing that while we may use animals as means to the ends of scientific and medical inquiry, we may not use humans to these ends. I do not mean that we may never use humans as research subjects; obviously, a good deal of research involves experiments on humans. I mean, rather, that we may not do to humans all the things that we presently do to animals. For example, we may not induce amyotrophic lateral sclerosis in a perfectly healthy human in order to study the pathology of the disease. Furthermore, we may not do this even if the human in question were to consent to be treated in this way.

The argument from benefit, then, needs to be supplemented by a further argument, one that strikes a deeper note than any obvious appeal to discernible benefit. This further argument must answer the question: what justifies using animals in science and medicine in ways that would be considered improper to use humans, even humans who consented to the treatment? This question can be asked regardless of whether the research is applied or pure (that is, whether or not the research has practical use), whether the techniques involved in it are invasive or noninvasive, or whether it involves pain or is entirely painless. In fact, what this question is asking of us is how we distinguish the human from the animal case. I have discussed this issue in a number of other places. In this essay, I want to distill from these other discussions how it is that this issue of separating humans from animals forms the starting point of any justification of animal experimentation.

**The Appeal to Similarity**

The appeal to similarity between ourselves and animals (or, in any event, the "higher" animals) has come to be thought of as one important barrier to animal experimentation.

**An Assumption About Humans**

It is true, of course, that the appeal to similarity depends upon a crucial assumption, an assumption that those who make use of the appeal nevertheless seem justified in making. This is the assumption (which might be called the characteristics claim) that, for any characteristic around which one formulates the appeal, humans will be found who (1) lack the characteristic altogether, (2) lack it to a degree such that they are not protected from being used in scientific/medical experiments, or (3) lack it to a degree such that some animals have it to a
greater degree. For example, it seems undeniably true that chimps give evidence of being more intelligent than many severely mentally subnormal humans, more sentient than anencephalic infants (infants born without a brain), and more able to direct their lives than humans in the final stages of Alzheimer's disease or senile dementia. Indeed, depending upon the characteristics selected and the humans under consideration, many animals, of many different species, will display levels of the characteristics higher than those found in some humans.

The only characteristic that seems unquestionably to favor humans, no matter what their condition or quality of life, is that of having had two human parents (in the near future, cloning may well call this characteristic into question). It is unclear, however, why this characteristic would be relevant. Having human parents could matter in one sense, at least if they objected to what was to be done to their offspring, but it is hard to see why having human parents matters in any deeper sense. The nature of one's parentage says nothing about one's present quality of life; one's intelligence; one's capacity for pain, distress, and suffering; one's ability to direct one's own life; etc. These characteristics seem more like the things that could serve to distinguish a human life as something that may not be treated in the way that we presently treat animal lives. This is because these characteristics say something not about what produced a life, but rather about the life being lived, about the nature and quality of that life. Thus, while it is true that anencephalic infants have human parents, the nature and quality of their lives nevertheless seem, by all reasonable standards, to be far worse than the lives of numerous ordinary animals. The same seems true of people in the final throes of AIDS, Alzheimer's disease, Lou Gehrig's disease, Huntington's disease, and so on.

In short, the appeal to similarity depends upon an assumption that, though it can be overturned, nevertheless appears to be very plausible. If we pick any characteristic around which to formulate the appeal, we seem inevitably doomed to come across some humans who lack that characteristic and some animals who, to a greater or lesser degree, have it. The result is a dilemma of a painful, unhappy kind: either we use humans as well as animals in order to obtain the benefits of research-since some humans fall outside the class of those having the relevant characteristic-or we use neither humans nor these animals that possess the characteristic and fall into the class of the protected. Given this dilemma, the case for opposing experimentation in science and medicine that uses the typical animal subjects is stronger than usually imagined, and it is salutary to be aware of this. However, if the benefits of scientific/medical research are everything we think them to be, then we can see how the first option, allowing the use of some humans as well as animals, is bound to seem the lesser of the two evils to some people. Those to whom this occurs are not Hitlers in the making; rather, they are simply those who employ the argument from benefit but are unable to separate human cases from animal cases in a morally significant way...

**Use and Quality of Life**

I have argued elsewhere that ... animals are indeed members of the moral community, they have moral standing in their own right, and their lives do indeed have significant value (though not the value of normal adult human life). If it is thought that the argument in favor of experimentation starts by denying animals moral standing or by denying that their lives have value, then I think that this strategy must be rejected. I see no way of denying either proposition. How, then, does the argument for experimentation get underway?
... [I]n our secular age, our problem is that we can find nothing that ensures that all human life (whatever its condition and quality), but no animal life (whatever its condition and quality), falls into the preferred class of nonuse. Secular attempts to replace God as the guarantor of the preferred status of humans have not proved successful. They inevitably involve us, yet again, in the search for some magical characteristic that can both separate humans from animals and be a plausible candidate upon which to hang a difference in treatment.

Suppose one can save either one's faithful dog, who has rendered long and valuable service, or some human whom one does not know. If one saves the dog, has one done something wrong? Is there a sense in which one must prefer human beings over animals, if one is to be moral? Suppose further that the human being suffers from a series of terrible maladies that give him a very low quality of life and a prognosis of a much-reduced life span: must one still prefer him to the dog? What if the human were an anencephalic infant? In these latter two cases, the questions seem to be asking us for the characteristic or set of characteristics upon which we can decide which life to save, whether human or animal, in circumstances in which it may be the dog, rather than the human, who best exemplifies that characteristic or set of characteristics.

Our central problem should now be obvious. Suppose someone were to claim that all human lives, whatever their condition or quality, possess equal worth. This comforting thought, which encapsulates the claim that two lives of massively different quality are nevertheless of the same worth, lies, I am sure, at the base of many attempts to provide a secular analog to the religious claim that all human lives are equal in the eyes of God. But if not in its condition or quality, in what does the worth of a life consist? How do we assess and recognize the worth of a life? What criteria do we use to determine such worth?

It is obvious that not all human lives are of the same quality: no one in the final stages of amyotrophic lateral sclerosis or pancreatic cancer would say otherwise. From the Judeo-Christian perspective, however, such lives are equal in worth to ordinary human lives because they are held to be equal in the eyes of God. If God is taken out of this picture, then what underpins the claim that all human lives are of equal worth? The notion of worth here does not pick out any actual features of the lives in question. Rather, what we are left with is simply the _quality_ of the lives being lived, whether human or animal, and the implicit recognition that, in some cases, an animal will have a higher quality of life than a human....

**Experience and Quality of Life**

As far as I can see, then, defending animal experimentation by means of the argument from benefit, which I think most people want to do, leaves us with a problem not about animals, but about humans. If there is nothing that shows that humans always, without exception, have a higher quality of life than any animal, then the cost of permitting experiments upon animals may have to be a preparedness to envisage similar uses of humans. For it seems inevitable, given that we know of nothing that always gives human life a higher quality, that on some occasions an animal will have a higher quality of life than a human to whom it is compared. To avoid the conclusion that humans may be used we might be forced to accept one of two claims: that we just do not know what an animal's quality of life is, or that animals have no quality of life whatsoever.

The claim of not knowing what an animal's quality of life is, while an important claim, does not seem to be a decisive refutation of the human-use conclusion. It might simply dictate that we should make greater efforts to learn about the quality of life of the animal. To say that we can never really know what it is like to be a rat is not to say that we can never know a good deal about what a better quality of life is like for a rat. Indeed, veterinary textbooks are filled with discussions of subjects that directly refer to or imply something about the inner states of animals.
Difficulty is not the same thing as impossibility, and in the case of the higher primates, I think that we have already begun to overcome the difficulties of assessing quality of life. Moreover, to say that we do not know what an animal's quality of life is may well be taken as a reason for not using the animal, on the basis of some "play-safe" principle. The second claim then becomes crucial. But the claim that animals do not have a quality of life seems to me to be simply false.

Animals are experiential subjects, with an unfolding series of experiences that, depending upon their quality, can make an animal's life go well or badly. A creature of this sort has a welfare that can be enhanced or diminished by what we do to it; with this being the case, such a creature has a quality of life. To deny that rats, rodents, rabbits, and chimps are experiential subjects is to deny that they have subjective experiences at all. It is to deny that their lives are lived, just as ours are, in terms of unfolding sets of experiences, of a kind such that what we do to these animals can affect the quality of those experiences. Today, however, it is increasingly the case that scientific journals, peer review committees, Institutional Animal Care and Use Committees, and government funding agencies demand that it be clearly stated what sorts of techniques will be used on research animals and what sorts of impacts these techniques are likely to have on them. The scientists involved do this regularly. It cannot be the case, therefore, that these groups and scientists think that they are dealing with nonexperiential creatures, creatures that do not register anything at all with respect to what is done to them. So I doubt very much whether any party to the experimentation debate will argue that animals do not have a quality of life....

**Conclusion: Experimentation and the Argument From Benefit**

How is my argument a pro-research position? I accept some version of the argument from benefit and hold that the benefits of scientific/medical research are sizable. I accept that animals may be used in such research. I believe that I have deployed arguments that show that normal adult human lives have a higher quality than animal lives. Animals, then, will remain the creatures of preferred use. However, I have not been able to find an argument that ensures always and inevitably that all human lives will exceed all animal lives in value; hence, I have not been able to come up with an argument that ensures that humans can never be used in experiments. When a human life is of lower quality than an animal life, it will not be right to use the animal rather than the human.

Mine is not a position that advocates the use of humans in experiments. Indeed, the adverse side effects of any such use, especially on those humans who are the weakest among us, are likely to be considerable, and my position would be strongly sensitive to these concerns. Yet however sensitive to these side effects we may be, the fact remains that the argument from benefit, if the benefits in question are all that science and medicine would have us believe and are as desired by the public as the media suggests, seems to demand that we proceed with experimentation and obtain the benefits. My doubt about the argument from benefit, then, is precisely this: I want to realize the benefits, just as other people do, but I can see no way of doing so without it coming into plain view that some humans will be put at risk as potential experimental subjects. In other words, I have found nothing to take the place that God played in the traditional argument: nothing to provide the comforting assurance that humans are the preferred creatures on Earth whose lives are the only ones that are morally considerable and valuable.

I am well aware, of course, that most people will find this starting point for the justification of animal experimentation to be very unpalatable. But I know of nothing that enables us to avoid it if we rely upon the argument from benefit. Failing to find some justification for why it is that the preferred class of nonuse includes any and all humans but no animals, my position is...
ineluctable, however unappealing it might be.

Finding my view extremely distasteful, many may respond by renewing the search for what makes us unique, for what confers on us the preferred status that we enjoyed under the traditional argument. But how, exactly, will they do this? As far as I can see, their only recourse is to generate yet more abstractions in the search for one that gives us the desired result. It remains to be seen whether or not the next generation of abstractions will be any more tenable than their predecessors.

Some will conclude that my position vis-a-vis impaired humans is so objectionable that my argument is tantamount to a rejection of animal experimentation. I don't see it that way. For me, the crucial question is: will we decide to forgo the benefits that scientific and medical research promise? It is hard to imagine that we will. Hence, we are faced with the problem over humans.

Notice another ploy that might be tried to evade my argument, and how it too goes astray. It might be argued that there are not enough anencephalic infants, or enough people in the final throes of devastating illnesses, to provide anything like the total number of research subjects that we can presently find in the animal kingdom. But the issue posed by my position is not about replacement of animals by humans; instead, it is about our need to come to terms with the issue of human use. It is a moral question, not a practical one. If we are going to use animals, the argument that I have raised in this essay seems to require that we at least be prepared to use certain humans as well, depending upon their respective qualities of life. Can we bring ourselves to do this?

One final ploy might be devised. It might be said that if a quality-of-life argument lands us at my unpalatable conclusion, then I have inadvertently discredited quality of life as the determiner of the value of a life. Yet every hospital in the land uses quality-of-life considerations in making all kinds of judgments, including life-or-death judgments. Hospitals use such considerations constantly in human health care, including situations in which they decide who will receive treatment and of what sort, who will be saved, and who left to nature's course. If quality-of-life is ubiquitous in making health care decisions for humans, how can it be sundered from medicine's bedrock-experimentation? Clearly, it cannot.