

Conditions Required for Ethically Acceptable Animal Research

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ABSTRACT: *In this article, we propose three essential criteria for ethically acceptable animal research, which we think may be accepted by individuals on both sides of the issue. We argue that, even if human beings have a higher moral status than nonhuman animals, animal research is morally permissible only if it meets the following conditions: (a) an expectation of sufficient net benefit, (b) a worthwhile-life condition, and (c) no unnecessarily harm/qualified basic needs condition (or a combination of these conditions). We next assert that, regardless of whether or not these required criteria are together adequate for justifiable animal research, they are relatively rigorous, with the result that many animal studies may fail to meet their requirements.*

KEYWORD: *Animal Research, Animal Ethics, Benefit, Ethical, Moral Status.*

1. INTRODUCTION

This article's goal is to create a list of prerequisites for ethically responsible, i.e., morally justifiable or acceptable animal research that may be implemented. This article is aimed towards animal research proponents who acknowledge that animal research presents ethical problems, but nevertheless believe that it is ethically acceptable in many instances. As a result, we adopt a moral position that is tolerant to animal experimentation. We presume, for example, that all sentient creatures have some kind of moral position, but that people have a greater moral standing than non-people.

Do all sentient creatures have moral status? For the time being, we imply that while making moral decisions, we must take all sentient creatures' interests into account. What does it imply when people are morally superior to nonpersons? This assertion may be interpreted in one of two ways. "Kantianism for people, consequentialism for nonpersons" might be described as the first approach. According to this view, we have a moral duty to regard people as ends in themselves, but we do not have a moral need to treat nonpersons as such. Instead, our sole moral duty to nonpersons is to take their interests into account when making decisions about how to proceed[1].

Second, if people have a greater moral standing than nonpersons, which might imply that we should put people's interests above nonpersons' interests when making decisions. As a result of such reading, we have to ask how much more weight to give to people's interests than nonpersons'. Whatever the case may be, let's suppose for the sake of argument that both interpretations are correct: we should regard people as ends in themselves, but not nonpersons, and we should prioritize people's interests above nonpersons' interests when making decisions.

They think all sentient creatures, human or nonhuman, have the same moral standing, which is why many opponents of animal experimentation would reject this idea. Many proponents of animal studies, on the other hand, would reject this view of moral position because they believe that only people or maybe only human beings have moral value. To reach animal research supporters who agree that animal research presents ethical problems, we utilize the moral status middle-ground approach described in the preceding paragraph. The criteria we propose are consistent with this concept of moral status and may be accepted by reasonable individuals on all sides of the argument for morally acceptable animal research. This leads us to the conclusion that many animal studies fail to meet at least one of these criteria[2].

1.1 Conditional Statement:

If you're trying to defend animal research, you may be defending the institution of animal research as a whole or defending a specific animal experiment in the future or in the past. Most animal research falls into a specific area such as chemical testing, noninvasive cognitive tests, or the investigation of novel surgical methods. These studies fall somewhere in the middle of the options listed above. A risk-benefit analysis must take into account the potential dangers and advantages of animal research as well as the animals' moral standing in order to justify the use of animals in research. Let's go more specific with this concept. There are three assertions

that must be made in order for animal research to be justified. The second claim includes the first, and the third claim includes the first two:

- Humans gain much from animal studies.
- Because of these unique advantages, animal study really helps humans more than it costs or damages animals; as a result, human beings gain from animal research.
- This net advantage to mankind is so significant that, even after accounting for the moral status disparities between humans and animals, the damage done to animal subjects is justified.

This confluence of three assertions will be referred to as the "assertion of adequate net benefit" (ASNB). Animal research advocates who take their moral responsibilities seriously think this to be true. Animal research as a whole cannot be ethically justified if the ASNB is false or cannot be rationally believed to be false on the basis of evidence. This is true for individual studies as well as for specific types of studies[3].

The ASNB is retroactive in one sense. "Animal research provides," although while written in the present tense, at the very least draws on research done in the past that weighed the costs and advantages of using animals. It is possible that the evidence also contains data from more recent investigations. In another way, the ASNB is forward-looking since it predicts, based on the data now available, that animal research will continue to provide a significant net benefit to humans.

A prospective judgement is supported by evidence that goes beyond the findings of previous studies and any current study data that is available, as well as information regarding potential future trials that stand out as particularly promising. We may also talk about the anticipation of adequate net gain from this future viewpoint (ESNB). The ESNB is a prerequisite for all future morally acceptable animal research. An animal research supporter may use the ESNB, as with the ASNB, to defend a specific study, a specific kind of study, or the whole institution of animal research[4].

One interesting possibility arises when we distinguish between the various generality levels at which we might evaluate animal research: someone who is generally opposed to animal research might judge that a specific experiment meets the ESNB and perhaps other necessary conditions, as we'll talk about later. Animal rights activists who deny animals have a lower moral status than people may, for example, support behavioral studies that do not harm animal subjects while providing them with a high quality of life, allowing them to live after the experiment, and generating unique scientific insights as a result of those studies.

Even if an animal protectionist views all animal research, not just specific trials, as acceptable provided certain additional criteria are fulfilled, it is conceivable that the category might be judged justifiable if it is sufficiently restricted. Animal protectionists and animal research supporters may both agree on certain nontrivial categories of animal research, which is an essential point to remember in the ongoing argument over the ethics of animal research.

1.2 Examination of the Claim (or Hope) of Sufficient Net Benefit:

It will be useful to think about the three assertions that make up the ASNB before moving on to additional required criteria. Summary: According to the ASNB, animal research (1) provides unique advantages to mankind and (2) provides net benefits to humanity as a whole, all of which (3) are significant enough to warrant hurting animal research subjects. Each assertion is deserving of scrutiny.

According to the first claim, animal research helps people in a way that cannot be achieved ethically without animal research, the benefit cannot be gained. Since it's always possible to forgo animal experiments in favor of human ones, the word "ethically" is important here. Although it is reasonable to assume that the first try at a novel surgical operation on a live creature should not be done on a person, this is not always the case. Such an individual would see the chance to learn about the process via animal testing as an invaluable learning opportunity. When you take into consideration both the unique advantages animals provide to humans and the accompanying damages and costs to humans, there is a second argument that says animal research is beneficial to mankind. The cost-benefit analysis shows that mankind benefits[5].

We do not attempt to synthesize or reference all of the relevant material on the pros and cons of animal research. However, a few important things should be emphasized. To begin, there is little evidence to suggest that animal research benefits people. Animal research advocates who argue for its advantages often use stories from successful, significant animal experiments as proof. Secondly, to fully evaluate the claim of unique net advantages, more than just past harms and benefits resulting from animal research must be taken into account; that is, what would have occurred if we had done less or more animal research, based on the data now available.

For the third point, evidence of unique past advantages does not imply evidence of unique future benefits if we now have alternatives to animal research that we previously lacked[6].

Although we lack overwhelming proof that animal experimentation helps mankind, there is abundant evidence that it is very expensive to human people. This is an important issue that is often ignored. The costs of conducting animal trials, in addition to the financial and opportunity costs, also include:

- false toxicity negatives, in which interventions appear safe for animal test subjects but prove harmful to humans;
- false toxicity positives, in which interventions appear unsafe for animal test subjects but are safe for humans;
- false efficacy negatives, in which interventions fail to work but appear safe for animal test subjects.

As you can see from (2) and (3), the expenses may be substantial when they are known. When uncertain, though, there is worry about lost chances for medical advances.

Importantly, animal rights activists aren't the only ones who've questioned the widely held belief that animal research yields only unique and ultimately beneficial results for humans. These assumptions are occasionally questioned by well-known biomedical actors. Ex-NIH director Elias Zerhouni, for example, criticized the over-reliance on animal studies on a return visit to the NIH: "The problem is that it hasn't worked, and we need to stop skirting around the issue." To better understand human disease biology, we must concentrate and adapt novel methods for human application. Francis Collins, the current head of the NIH, voiced strong concerns about animal models in a recent essay on the translation of fundamental scientific research into safe and effective therapeutic applications. Translational scientists have long used small and big animals to predict human safety, but the results are not always accurate.

As for efficiency, he said that "the use of animal models for treatment research and target validation is time consuming, expensive and may not correctly predict effectiveness in people." Human embryonic stem cell and induced pluripotent stem cell disease models, as well as improved assay validation are being called for by researchers, who add that "with earlier and more rigorous target validation in human tissues, it may be justifiable to skip the animal model assessment of efficacy entirely."

The low quality of animal research, on which most of clinical research is based, is a "fundamental issue," according to BMJ editor-in-chief researchers. It's possible that funds might be better spent on clinical research rather than fundamental research, since clinical research has a more immediate impact on patient care. The biomedical community, not just those on the periphery, have significant reservations about the expense of, the necessity for, and the dependability of animal models, which proponents of animal research must acknowledge[7].

The final claim is that the net benefit to humans from animal research is significant enough to warrant the damage to animals. If we assume that humans have greater moral standing than nonhumans, then the harms and benefits of animal research must take this into consideration. That's the concept behind the parenthetical qualifier. There would be greater weight given to the negative effects on people than the positive effects on animals. To what extent, if at all, should they be counted—and what is the foundation for the answer? Providing satisfactory answers would need specifying how and to what extent humans have a higher moral standing than nonhuman creatures, which we cannot examine here[8].

1.3 The Worthwhile-Life Condition:

The lives of animal subjects must be worth living as a second requirement for ethical animal research. This means that as soon as their lives begin, they will be judged on their worthiness to be kept around for the long haul. As a result, the damage to animals is never so severe that killing them humanely would be a kindness; if killing them humanely were ever a kindness, it would mean that the lives of the animals were no longer worth living. You'd be sure to meet the worthwhile-life criterion by providing pleasant living circumstances, sufficient food and exercise for rat subjects as well as allowing them access to their own species and subjecting them to just minor injuries such as an occasional needle poke. When this criterion of a meaningful existence is fulfilled, it's impossible to say that animals' lives are terrible in general.

What's the point of accepting the worth-living condition? Several factors influence our decision. One is that bringing into existence lives that are anticipated to be of low quality and thus not worth living, whether human or animal, feels immoral. As a result, those in positions of power in special connections may feel obligated to defend others who are weaker than them. Parents owe a lot to their children, such as protection, nurturing, and

support; one (but not the only) need for successful parenting is that parents strive to ensure lives that are worth living for their children. People who care for or accompany pets owe them a lot, including protection, nourishment, and assistance. Since animal subjects are especially vulnerable and reliant on researchers, it is reasonable to assume that investigators have protective obligations toward the animals. This is true not only because investigators are responsible for the animals' existence, but also because investigators have complete control over animal subjects[9].

When it comes to responding to this argument, it's likely that some researchers will wholeheartedly agree that researchers' caretaking responsibilities to animals are implicit. However, our assertion may be disputed by others. While pet parents and pet guardians implicitly accept a socially acknowledged commitment to the wellbeing of their children and pets, animal researchers do not do anything to suggest such a commitment to safeguard their animals, they may argue. There is an argument to the effect that many animal researchers may see animal subjects as little more than biomedical research instruments.

2. DISCUSSION

Our argument, although directed mostly at those who support animal research, is that all rational participants in the discussion over this subject should agree that these conditions are essential. The issue of whether these criteria are not only required but also collectively adequate for ethically acceptable animal research will be addressed at a later date and in another context.

In any instance, these circumstances have unexpected ramifications for the ethical treatment of animals in research. They argue, in particular, that many, if not the majority, of the animal experiments that we presently perform are ethically wrong and should be stopped. For a variety of reasons, investigators who accept these criteria may be taken aback by these findings. First and foremost, it is simple to underestimate the difficulty of any situation. Specifically, we have argued that the expectation of sufficient net benefit condition establishes a demanding epistemic standard for morally responsible animal research; the worthwhile-life condition establishes a demanding moral baseline; and the no-unnecessary-harm condition establishes demanding limits on the suffering, confinement, and death that we may inflict on research animals.

Second, when attempting to defend a certain research or kind of study, it may be tempting to narrow the scope of the discussion to just one of these criteria. Example: It is tempting to believe that a certain research is acceptable since the animals' lives are valuable or that a particular study is permissible because it does not give the animals any unnecessary damage. However, it is critical to recognize that each of these requirements must be met in order for animal research to be considered ethically acceptable, and that each of these requirements must be met.

An experiment to investigate the power of cocaine addiction could include inducing rats to become addicted to the drug and then evaluating the strength of their addiction on a regular basis by measuring the severity of electric shocks that they are ready to bear to obtain the fix they now desire. Consider the possibility that the rats in this research evolve into unhappy creatures, driven by compelling appetites yet injured by strong shocks and perplexed by the persistent conflict of desires that lies at the heart of their existence. Despite the fact that the harms caused by this experiment are necessary in order to achieve its experimental goal of studying cocaine addiction's power, the harms are so severe that they appear to violate the worth-while-life requirement: under these experimental conditions, the rats are presumably better off dead than alive. We also have our doubts about whether this experiment will be able to deliver on the promise of a sufficient net benefit, but we will not pursue the issue further[10].

3. CONCLUSION

This discussion has proceeded on the assumption that persons have a higher moral status than nonpersons, and in particular, that we should treat persons rather than nonpersons as ends in themselves, and that we should give greater weight to the interests of persons in making decisions than to the interests of nonpersons. If we were to abandon these assumptions, as many participants in the debate over animal research have suggested, the implications of our argument would be even more radical: restrictions on animal research would be analogous to restrictions on research on human children and adults, who, like animals, lack the ability to provide informed consent on a permanent basis. In contrast, as stated at the beginning, we are interested in examining animal research ethics from a point of view that individuals on all sides of the argument may, and do, agree with. Consequently, we started with the assumptions regarding moral standing that we discussed earlier in this chapter. We look forward to hearing intelligent comments from proponents of animal research who share our moral view on the middle ground.

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