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Is The Use of Animals in Teaching Laboratories Justified?

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S C I E N C E

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This section of *The Synapse* is dedicated to the discussion of an ethical question posed by scientific research. Authors are interested students from a STEM discipline affected by the issue. Have a stance? Visit *thesynapsemagazine.org* to join the discussion.

Over the years, the use of animal experimentation in teaching labs has come under some scrutiny here at Oberlin. Though the use of animals in teaching labs is likely to continue, the issues raised do warrant a response. This article will not focus on the moral justification for animal research itself, as this topic has been discussed many times previously and is not raised as part of the current debate. This article will simply argue that the use of animals in teaching labs prepares our science students for the research world by ensuring they know what animal research involves and that they are aware of how to work with animals effectively and humanely.

The biological sciences at Oberlin College are well respected in the research world, as are our opportunities to do hands on research with animals throughout our undergraduate curriculum. Many colleges are unwilling or unable to allow students in teaching labs access to animals, and while this is far from the only differentiator in biological sciences at Oberlin, it does put our students at a distinct advantage. Students working in labs after Oberlin will be able to competently perform basic animal techniques, which can help our students get noticed, thus opening doors early in their career. Use of animals in introductory labs, such as the Neuroscience 211 lab, affords students this opportunity early on in their undergraduate careers. On a humanitarian level, learning animal research techniques in an environment that prioritizes proper animal treatment will lead to students who will treat research animals well for the rest of their lives. Animal research skills are taught under the close supervision of professional lab instructors who emphasize proper animal treatment. The alternative is real world lab technicians whose primary motive is in attaining results and evading animal ethics committees.

Oberlin not only provides students with the skills to do animal research, but also shows students exactly what animal research involves. Entering the research world already competent in the humane performance of laboratory techniques is a huge advantage Oberlin science students can enjoy. This early exposure also ensures students won't train for a career in animal research only to realize they're ultimately unwilling to take an animal's life. The theoretical sacrifice of animals for the purpose tends to be much more tolerable than the first hand act of performing said sacrifice. It's difficult to know how one will react to having to perform such acts without actually being exposed to them. It is an undeniable advantage to appreciate the intersection of one's practical and moral limits before entering an animal research-centered graduate program, as many are in the biological sciences. This awareness will save many a student from having to drop out of programs they have worked hard to get into, or worse force them into a career that they won't be comfortable with.

The use of animals in teaching labs is one of many elements that keep Oberlin's science departments strong and affords our students pre-professional exposure to animal research. It allows us to send competent and humane researchers out into the scientific community. Our graduates will be aware of what a career in animal research entails and be able to plan their futures accordingly. To end the use of animals in teaching labs would not only hurt the science program at Oberlin, but also hinder the progress of those students that believe it to be worthwhile. It would also likely lead to less humane treatment of animals in the greater research world, as Oberlin student tend to be more mindful of such matters. Such costs are surely not worth nixing animal research in our teaching labs, especially considering that any biological science major may complete their studies while abstaining from animal research. Eventually, every biological scientist must face the choice to do animal research or not, and Oberlin affords us the opportunity to make that decision from practical rather than theoretical knowledge. Animal research will continue to be a major aspect of the scientific world; by removing it from Oberlin we would simply remove our ability to guide such a system in a better direction. 🔴

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The use of animals in scientific research is of undeniable value. Animals provide a means of rapidly testing hypotheses across many disciplines, and in service of many important questions. However, the moral justification for the use of animals, especially in non-research settings, deserves investigation. By using animals in teaching labs (non-research based labs associated with classes), we are assuming that students will quantifiably reduce suffering in the future in an amount greater than that which they cause the animals used, and that they otherwise would not have been able to do so. If this is not the case, then we as an institution are committed to the belief that there is a stark divide in terms of what kinds of vertebrate lives deserve freedom from captivity and pain. I will show that neither of these sets of assumptions is supportable, and thus that we have no moral justification for our use of vertebrate animals in teaching labs.

I will layout the first possibility more completely before evaluating it. In order to provide positive support for the use of animals that we know are capable of suffering, and are made to suffer (ignoring the additional weight of deprivation of freedom), an excess of good must result. More specifically, a greater amount of pain must be prevented than is caused, and that pain must not have been otherwise preventable. If a doctor would be just as well equipped to successfully operate on her patient, irrespective of work with vertebrates in teaching labs, her good work does not retroactively justify the pain those animals suffered. [1] Herein lies a significant problem with the rationale in support of using vertebrates. There is no way for moral justification to be backward-acting. An action must be morally justified, or not, at the time it is committed. Arguments from probability seem like they might be able to solve this problem. If you are fairly certain some desirable conclusion will follow from an action, you may be justified in expecting a certain outcome (epistemically justified), but that does not mean that you are morally justified in committing that action. Moral justification cannot operate on the same sorts of future contingencies as epistemic justification. The ends cannot justify the means. Take for example Billy, and his arch-nemesis Freddy. Freddy is awful to Billy, and makes his days at school less pleasant: taking his lunch money, calling him names, kicking him off the swing, etc. Now, Billy has a surefire way to get Freddy kicked out of school. Given his ability to have Freddy expelled and his past experiences with Freddy, Billy is justified in expecting that getting Freddy expelled would make his life better. However, Billy is not morally justified in doing this to Freddy. On a purely utilitarian reading, more pain would be caused than averted. On a slightly more common-sense reading, we don't tend to believe that we are morally justified in disposing of everyone who displeases us. The likelihood of desirable ends coming about might epistemically justify certain expectations given the use of certain means, but it does not grant the use of those means moral justification.

[1]The impossibility of proving a counterfactual further complicates this case, and compromises even our epistemic justification for using vertebrates in teaching labs.

There are two obvious responses to this. The first is that, yes more pain is averted, so we are justified. The second is that there are no good alternatives to using vertebrates in labs, so we must continue to do so. To the first response, I offer a reminder of the problem of taking future circumstances as moral justification for actions. Additionally, the burden of proof is on us to rigorously demonstrate that more (and otherwise unpreventable) suffering is being prevented before we willfully kill and torture vertebrates. The impossibility of proving counterfactuals is a serious problem for this route. The second retort is simply not an argument, and is an admission of our wrongdoing. The claim that there is nothing better seems that it should be more of a call to innovate, given our esteemed status as departments of the biological sciences, than an excuse for inaction.

I will now address the second possibility outlined in the introduction. If we are not preventing suffering, then somehow the suffering of the vertebrates we use must not have moral significance. The dilemma I pose is to find a meaningful difference in terms of mental faculties between humans with severe cognitive deficits, or human newborns, and healthy adult rats or mice. I'm not suggesting that infants and rats are equal in all ways, but that if we are uncomfortable experimenting on babies for ethical reasons, then those reasons must be because of some feature(s) newborns have. We can therefore either make the very weak argument that babies have moral rights because they are similar to us, or the more reasonable claim that they deserve protection in virtue of their mental faculties. If we accept this latter option, there is no moral excuse for the use of healthy adult mice and rats, given their cognitive capacities relative to newborns. Perhaps infants or the severely cognitively impaired would not provide ideal test subjects, but it is not for this reason that we have a visceral reaction to the notion of them being experimented on and held captive in labs. The conclusion that can be drawn from this is the lack of any morally rational foundation for condoning our use of vertebrates in lab testing, given our stark moral opposition to the use of highly cognitively disabled or newborn humans.

Given that neither of the two possibilities outlined above are morally supportable, we must realize that there is no adequate moral justification for the use of vertebrates in teaching labs. I will not put forth an opinion on the use of these animals in research labs, as I think the case is more ambiguous. This is all to say that the departments of the biological sciences here are excellent, but they have fallen short on their commitment to the spirit of science in abiding by its letter. If our goal is to improve the world through knowledge, the acquisition of knowledge ought not itself to sacrifice our ends. Certainly the pillars of research must be taught, and taught well. But if a hard contradiction arises between what is morally justified (and our purported goal), and what is actually being done, then change is needed. As an institution as well positioned academically and intellectually as we are, it is incumbent on us to at least seek to reform and improve these practices for which we lack moral justification. 🔴