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The Animal Research Paradox

Harold Herzog, Animal Studies Repository

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Back when I was young and stupid, I once spent a restless night huddled in a sleeping bag in the town garbage dump of Nice, France. I remember waking up at four in the morning surrounded by rats as big as Chihuahuas. The Nice rats were nice (at least in the sense that none of them bit me). Thus I was not completely surprised that University of Chicago researchers recently discovered that rats are capable of an amazing degree of empathy.

The experiment was clever. (Watch it here.) In a series of trials, rats were given the opportunity to liberate a cagemate who was imprisoned in a claustrophobically tight enclosure. It took the liberators an average of only six trials to figure out how to free their distress-calling pals by opening a trap door. Once they caught onto the trick, on subsequent trials they immediately liberated the other rat. The savior rats, however, did not bother to open the enclosure if the "prisoner" was a fake rat. Most impressively, when given a choice between getting access to tasty morsels of chocolate and freeing their friend, they would often help the imprisoned rat even if it meant they had to share the highly valued chocolate treats.

The study was hailed by animal protectionists including my friend and fellow PT blogger Marc Bekoff, who opposes any research that you would not conduct on your own dog. In this post (here), Marc correctly pointed out that the study involved no pain and lends weight to the argument Congress should repeal the idiotic 2002 legislation which declared that rats, mice, and birds are not animals. (This law means that 95% of the animals used in research in the United States do not fall under Animal Welfare Act.)

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The Chicago studies were not the first experiments showing empathy in rodents. That distinction falls to a 2006 study (here) by researchers at the Pain Centre at McGill University who found that mice can feel each other's pain. Unlike the rat study, the 800 animals used in the mouse empathy studies did suffer. Many of them were subjected to painful "writhing tests." The nostrils of others were flooded with caustic chemicals which fried their smell receptors, and some were injected with a chemical called kanamycin every day for fourteen days which left them permanently deaf. You would think that animal activists would have been enraged by the study. This was not the case. Indeed, the study was lauded by many animal protectionists who normally oppose invasive research. The reason is that they felt that it showed that even lowly mice experience the same sorts of mental experiences as humans - and, hence, should not be used in research.
Therein lies what I call the "animal research paradox." The paradox is that the case for animal rights largely rests on the finding of experiments on captive animals - the very research that animal activists oppose. For example, the philosopher Tom Regan, author of the influential book The Case for Animal Rights, argues that the possession of rights should be extended to all species that possess consciousness, emotions, beliefs, desires, perceptions, memories, intentions, and a sense of the future. But how do we know which animals have these attributes? The answer, of course, is animal research.

Determining Which Species Deserve Rights

The legal scholar Steven Wise is one of the few animal rights advocates who has seriously grappled with the moral implications of species differences in mental capacities. In his book Drawing the Line: Science and the Case for Animal Rights, Wise developed a 0 to 1.00 "Autonomy Scale" on which species are rated according to their cognitive abilities. The rankings are based on Wise's review of scientific studies of animal behavior and cognition. Humans are assigned a 1.0 on the scale; chimpanzees .98; gorillas .95; African elephants .75; dogs .68; and honeybees .59. Wise argues that creatures scoring above .90 (great apes and dolphins) are clearly entitled to basic legal rights while animals with scores below .50 are not. The strength of this approach to animal ethics is that an animal's moral standing is based on evidence rather than naïve conjectures about their abilities or how much we like them. For instance, after reviewing the science, Wise concluded that African grey parrots like the famous Alex have a slightly stronger claim to basic rights than do dogs.

Wise's empirical approach to animal liberation exemplifies the animal research paradox -- you need to conduct animal research to determine if it is immoral to use a species in animal research. Dolphins are a good example. Wise assigns dolphins an Autonomy Scale score of .90, which puts them in the highest category of non-human creatures that deserve legal rights. His assessment of the cognitive abilities of dolphins is largely based on the findings of a University of Hawaii psychologist named Lou Herman. Using captive dolphins, Herman demonstrated that dolphins have extraordinary memories, can read human gestures better than chimpanzees, and have such sophisticated linguistic skills that they will correct your grammar.

Given that Steven Wise's case for dolphin rights hinged on Herman's findings, you might think he would be a fan of these studies. Wrong. In fact, Wise argues that Herman's dolphin research is unethical, that Herman exploits his research animals, and that he treats his animals like prisoners. The irony is that without Herman's research Wise would not be able to argue that these intelligent and elegant animals are entitled to legal rights - including, I presume, the right not to be used in research.

The Problem With Animal Research

For me, animal research is the most ethically difficult of all the problematic relationships humans have with other species. Even some of my friends who are serious and thoughtful animal activists pause when I asked them about the morality of "sacrificing" mice in search for an HIV vaccine or a cure for Dengue fever. (For my views on this topic, see here.) I understand the arguments by those who oppose animal research, and I share some of their concerns. (I
discuss the ethical and practical problems of animal research in my book on human-animal relationships (here). However, about two million people will die of AIDS this year, and I would be willing to trade the lives of a lot of rodents (yes, even empathetic ones) for an HIV vaccine.

Further, without studies of captive birds, we would not know about the amazing capacities of the avian mind (see here). Without the studies of captive apes we would not know that chimps easily outperform college students when it comes to remembering numbers (see here). And without the experiments on the minds of rats doomed to spend their lives in small cages in barren laboratory animal colonies to we would not know how much they care about each other.

In short, the more we use research to discover the richness of the minds of other species, the more morally problematic animal research becomes. That's the paradox of animal research.