**Opinion Paper:** Animal Ethics

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**Assignment Acknowledgement**

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1. Do you believe the public would widely support animal research if they knew more about it?

I believe that if the public knew more about animal research in Canada, they would not widely support it. This lack of support would stem from three primary reasons: the abuse suffered by animals in these experiments, the current lack of legislative oversight surrounding animal experimentation and the growing availability of non-animal, alternative, research models that are more humane.

When we think about animal abuse, it conjures an image of a profound violation of moral standards. There are many such obstructions noted in Canada’s historical and current landscape of animal research. In 2017, a national council responsible for monitoring animal welfare, released footage of a Montreal-based research facility (Newman, 2017). This footage revealed the lab technicians inhumanely handling dogs, pigs and other animals (Newman, 2017). They subjected these animals to physical violence, lack of pain relief, and overall poor treatment (Newman, 2017).

One might assume that, just as we have laws to protect humans, there would be clear regulations governing animal experimentation. Unfortunately, there is no nationwide legislation specifically designed to protect animals from unethical experimentation in Canada. The Canadian Council on Animal Care (CCAC) is an organization that administers guidelines regarding animal experimentation (Black, Fenton, & Ormandy, 2022). The CCAC is a voluntary organization that has members, which means institutions that are CCAC certified are not obligated to follow CCAC precepts in a specific manner (Black, Fenton, & Ormandy, 2022). These institutions use their own interpretation and assessments to ensure CACC compliance. This lack in uniform overarching national legislation allows for discrepancies. Moreover, the CACC is not transparent, members of CCAC need to submit a written testament of activities regarding animal research to the CCAC, however these statements are not publicly accessible, which prevents accountability and responsibility (Black, Fenton, & Ormandy, 2022). This lack of accountability is also seen in CCAC’s annual reports, where there is a lack of reporting regarding noncompliance with CCAC guidelines (Black, Fenton, & Ormandy, 2022).

A major justification for animal experimentation is the need to ensure the safety and efficacy of compounds before they are tested in humans, especially in drug development. However, there are novel technologies that are revolutionizing drug development, for example, a microdevice known as organ-on-a-chip (Thakar & Fenton, 2023). These devices mimic the function, structure and behaviour of organs or tissues by using human cells (Thakar & Fenton, 2023). These devices can emulate intricate cell interactions in controlled conditions (Thakar & Fenton, 2023). The nature of this chip allows the research to be directly translational to humans and further development forecasts lower development costs, reduced need for animal testing and improved reproducibility (Thakar & Fenton, 2023). Devices like these are alternative research models that are more translational, humane and ethical, and pose as another reason to why I believe the public would not support animal research if aware of such alternatives.

 As a student of science, I recognize the importance of animal research, however, it is necessary that there is implementation of nationwide regulatory oversight and increased transparency at an institutional level to foster trust in the public regarding animal welfare. Public trust in animal welfare can only be strengthened through rigorous scrutiny of ethical practices and an evolving framework that ensures continuous improvements in animal care.

1. Has your position on the use of animals in research changed from the beginning of this course?

My position on animal research has become more accepting from the beginning of this course, I accept the use of animals in medical research if the research is for serious medical purposes, suffering is minimized and /or alternatives are fully considered. I believe this increased acceptance is due to employing a contemporary perspective of the 3Rs. The contemporary definition of the 3Rs encompasses a continuous framework that considers technological development, animal welfare in respect to ensuring their basic needs are met, and robust scientific study design (MacArthur, 2018). Moreover, one key aspect of the contemporary definition of**replacement** is the acceleration of technological development, this definition shows proactive effort in replacing animal models, in comparison to the traditional model that just mentions substitution without active development efforts (MacArthur, 2018). The contemporary definitions are a more robust and evolving framework in comparison to the traditional definitions, which has prompted me to become more accepting as it prioritizes animal welfare. It is this contemporary approach that has made me more accepting because it allows me to understand that animal welfare is prioritized. However, I am still skeptical about animal research in Canada because of the lack of nationwide regulatory oversight, transparency and audits at an institutional level that fosters a sense of fear and mistrust.

1. How would you reply to someone who asks you if you feel animal research is morally and ethically justifiable?

 Although I have become more accepting of the use of animals in research, I still fundamentally oppose the practice. Many of my decisions are shaped by a moral compass influenced by cultural, familial, and religious values. One such belief is that all beings are equal, regardless of perceived sentience. How can we claim to know which being is more sentient than another when we have yet to develop comparable methods to measure sentience? What if we have not yet discovered the sentience of certain organisms? Moreover, how do we establish a hierarchy of life based on consciousness or sentience? I do not view myself as superior to a mouse or any other organism, and thus, I cannot morally justify animal testing. In doing so, I would be assuming a higher position, which contradicts my values. Ethics, on the other hand, are societal guidelines that outline what is deemed acceptable. Animal experimentation, when conducted within ethical frameworks such as those rooted in the contemporary application of the 3Rs, can be justified from an ethical standpoint. While ethics are grounded in overarching moral principles, they differ from individual morals in that they reflect a collective consensus. This shift from subjective personal beliefs to objective standards represents the fusion of diverse moral viewpoints. Even though I do not find the sacrifice or harm of animal life for the benefit of human society morally acceptable, as it conflicts with my personal moral compass, I can understand the scientific and ethical rationale behind animal research.

Reference:

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