

Rethinking Animal Experimentation: Ethical Imperatives and Humane Alternatives

Transcript (Natalie)

The aim of this presentation is to expose the case against animal experimentation. I will do that through ethical reasoning, thought experiments and scientific critique and then finally I will offer some proactive actions that we can make as a collective. By the end of the presentation, I hope that we can challenge ourselves to reflect on our moral responsibilities to animals.

What we will understand after this presentation is that bioethics really compels us to ensure that our actions are in harmony with the values of a just and ethical society. So, by the end of this presentation, I urge us to commit to a duty to ask the tough questions about our current practices and whether they actually align with our current society. So that's my aim.

For those who are not familiar with bioethics; at its core it is concerned with how we ought to act to promote wellbeing, protect rights and uphold justice in our treatment of all living beings. It occurs in many parts of our society, it informs public health policy, it shapes laws that protect rights, and it influences the moral frameworks of many democratic societies and so bioethics draws upon key ethical principles.

So we've first got *autonomy* and *respect* for persons. So, what that means is we respect persons to exercise their own interests. Every person has their own interests and we must respect them. This ensures that individuals are treated as ends in themselves and not merely as means to an end. So, we don't use people as tools or as things to gain something; we treat them with respect, they're an end to themselves, so they have intrinsic value.

Then we have *non maleficence*, which is the duty to avoid causing harm, which is pretty self-explanatory. Then *beneficence*, which is the duty to act in the best interest of others, which means we're promoting their wellbeing. The last principle we have is *justice*, which ensures fairness, particularly in the distribution of harms and benefits. We'll see how all these ethical principles apply to the realm of animal welfare and animal experimentation further along in the presentation.

I'll just explain a little bit more about bioethics. So why should we examine animal experimentation through the perspective of bioethics? Animal experimentation is a field in which the core bioethical principles, the ones that we've just looked at, come into direct conflict with the scientific practices that are currently used in animal research.

Examining animal experimentation through a bioethical lens is essential because it provides the tools to critically assess the moral and ethical dimensions or textures or aspects of our actions, particularly those affecting sentient beings.

Bioethics asks us to interrogate not only the practices themselves, but also the societal values and assumptions underpinning these scientific practices. So the question that we should be asking is, are we truly embodying principles like autonomy, like all the other

principles that I've mentioned, or are we just perpetuating practices that actually contravene or undermine these ideals?

Animal experimentation often raises significant ethical concerns, including issues of consent and suffering and the balance between benefits to humans and harms to animals. So, to reiterate, by adopting a bioethical framework, we are compelled to confront these challenges with intellectual honesty and moral clarity. The approach through bioethics exposes inconsistencies in our ethical reasoning, particularly when we accept practices towards animals that we would undoubtedly reject for humans.

So let's move on to our first principle and let's sort of dissect it a bit and explore it a bit and that's *sentience* and *autonomy*. At the heart of bioethics lies a concept of sentience. Many of you who are animal welfarist or really care about animals, I'm guessing most of you are, would have probably heard this term before. Just to reiterate that it's the capacity to experience sensations such as pleasure, pain and emotional states. Sentience grants beings as having intrinsic value and it compels us to consider their wellbeing.

So, if we ascribe someone, a person, with sentience, we are more likely to consider their wellbeing. We know that animals are sentient; it has been scientifically proven - there is no doubt. We can even have a look at some of the categories... mammals, for example pigs, form very deep social bonds. They experience grief, exhibit remarkable cognitive abilities, emotions and intelligence comparable to that seen in dogs.

In birds, species like parrots and crows demonstrate advanced problem-solving abilities; this showcases high levels of intelligence. Fish, contrary to the common belief, do exhibit pain responses, such as avoiding areas where they've been harmed, this indicates they have a capacity for suffering. So we can see that animals are sentient, and they do experience suffering and a whole plethora of emotions, but sentience alone doesn't fully capture the ethical picture and that's when autonomy comes in. Autonomy, the capacity to act in one's own interest, is the first principle that we can see and autonomy and sentience are intertwined. Sentient beings possess the ability to make choices that affect their lives, which means they have a fundamental interest in maintaining their autonomy. For instance, rats are autonomous; they demonstrate self-directed agency, for example, choosing social interactions over food. That is a self-directed choice, that is self-directed agency. Octopuses, they're also autonomous. They use problem solving skills to escape enclosures and these actions reveal their capacity for independent decision making. So again, we can see that animals demonstrate autonomy and agency but in laboratory settings, the animals that are used as subjects are systematically denied their autonomy. They are not treated as individuals with their own interests and rights, but they're treated as tools for human purposes.

This represents a profound ethical contradiction, because if we acknowledge sentience, then we must respect autonomy because they are intertwined. So if rats are considered sentient, and we know this, therefore they are autonomous and so their autonomy should be respected.

So we could wonder, what would this look like if humans were in this position whereby their autonomy was stripped and undermined? What would we say to this? We would apply similar logic. We would say humans are sentient and therefore they have autonomy, so autonomy must be respected. To illustrate this a bit further and to show this intersection of autonomy and sentience, I've provided a little thought experiment.

Suppose a highly intelligent alien species comes down to Earth and wants to experiment on humans to test a new drug. (you can see the picture that I've got there of the aliens experimenting on the human), and the aliens believe their actions are justifiable. It looks a little bit uncomfortable, gruesome...doesn't quite sit right, does it? ...anyway, the aliens believe that their actions are justifiable and necessary they've come to Earth, they want to experiment on humans to test this drug, and they believe that the actions are justifiable and necessary because they believe they are superior and more intelligent than humans. In this scenario, humans and aliens are closest physiologically to each other, so the aliens think that this is justified because they don't want to experiment on their own....and this drug will cure some of their alien population. So, they've got a number of reasons why they would think this is permissible. But how do we feel about this? If aliens were to come onto Earth and experiment on us, how would we feel about this? Even though they're more, they consider themselves more superior, more intelligent than us, how would that sit with us? I'm guessing most of us would find this idea morally repugnant. You know, it doesn't sit right.

The thing is, this very thought experiment is the same paradigm for non-human animals. This is exactly what we're doing to non-human animals. That same idea of the superiority, higher intelligence, similar physiology, wanting to benefit our society, the human race. So, this juxtaposition between autonomy and sentience challenges us to rethink the ethics of animal testing. Advocating for a shift towards more compassionate scientific practices that respect the autonomy and sentience of all beings is the shift that we want to make.

If we were to put ourselves in animals' shoes, we would never accept something like this. So let's go to the next slide, which is *justice*. This is the next principle that we'll be exploring. Justice demands that we treat all beings fairly, with equal consideration and without bias. Yet our treatment of animals is characterized by a glaring inconsistency and that's *Speciesism*.

Speciesism is a term that was pioneered or made well known by Peter Singer. This bias is about giving priority to human interests over those who are not human animals. This is purely based on species membership rather than morally relevant traits like sentience. This notion is similar to what we saw in the thought experiment that, that we just saw earlier with aliens. So, we can consider the contradictions and how we view and compare animals.

For example, whales and dolphins; they're admired for their intelligence and they're protected under international law, while equally intelligent pigs, who are said to be very similar to dogs, they endure lives of unimaginable suffering in factory farms. So, there's a bias between these different species. Pets are shielded from cruelty by law, while laboratory animals like beagles and greyhounds are subjected to invasive procedures, pain, psychological torment and again, this contrast betrays the principle of justice.

So, we can see that depending on the animal and depending on the context, the bias differs. We can explore this a little bit further with another thought experiment, this idea of justice.

This thought experiment might be confronting, but it's really just there to highlight the principle and highlight that contradiction. (just a warning).

Imagine if we were asked to choose between a cognitively impaired human infant and a highly intelligent chimpanzee to be subjected to painful experiments. An adult chimpanzee would demonstrate greater cognitive capacity, emotional complexity and self-awareness, but if we were to choose between the two, we would instinctively choose the chimpanzee to be the subject for the experiment. According to bioethicists like Peter Singer, this reveals an ingrained speciesist bias.

While it is innate for animals, including human animals, to choose their own kind, speciesism reveals that there is a bias, one which we should consider and confront. I'm not suggesting at all that we should ever use a human infant under no circumstances, but I'm saying that we should use neither, neither the chimpanzee nor the infant, because we should respect the principle of justice, because to reiterate, justice demands that we treat all beings fairly with equal consideration, without bias.

So where possible, we should make efforts to extend equal consideration to sentient beings, not merely just those of our own species. Scientific research is an area where we so can easily extend this consideration because we have effective non-animal alternatives. So, this is the perfect place to implement this idea of the justice principle. So let's explore the third principle....doing no harm. This is central to all ethical conduct, but in Australia, approximately 6 million animals are used annually in research and teaching and many of these animals endure horrific suffering.... toxicity testing, which often involves force feeding and it's a practice still permitted under Australian regulations. There are neurological experiments on rodents and primary primates, which often involve invasive procedures, so drilling into skulls, inducing brain injuries. There's surgical research on large animals like sheep, which involves painful procedures. Even in educational settings, there's animal dissections and live demonstrations. These practices not only perpetuate animal suffering, but also undermine our claim to be a compassionate and progressive society that avoids the notion of doing no harm.

This principle is very heavily rooted in our society when it comes to human-to-human contact and interaction, but for some reason when it comes to our interaction with animals, we don't utilize that or we seem to just dismiss it and pretend it's not there. Let's go to the fourth principle, which is *beneficence*.

The principle of beneficence demands that the benefits of an action outweigh the harms. And yet the scientific benefits of animal research are often grossly exaggerated; over 90% of drugs that pass animal trials fail in human clinical studies due to physiological differences between species. Neurological diseases like Alzheimer's remain poorly understood despite decades of research using animals such as mice and monkeys with treatments that seemed promising in animal models, but they consistently failed in human trials....and for vaccines, for example, for diseases like HIV, they've worked in primates but failed in humans.

So, this mismatch between animal biology and human biology leads to unreliable data, wasted resources and delayed innovation. Beneficence is not served when we continue to rely on flawed methods that harm animals and hinder progress, which to me, I think is the most obvious reason why we should move away from using animals as subjects. The data is there to show us that non-animal research methods are far superior and they're more cost effective because you're not wasting resources.

So, this slide is exploring the 3 Rs and the 3 Rs are ethical guidelines which underpin the code which is used for researchers. It's the Australian code for care and conduct using animals and animal research. The code attempts to keep researchers accountable to ensure that they are treating animals with respect. Unfortunately, the code gives too much leeway or too much room for researchers to use animal subjects anyway, because it ends up just being easier and it's a thing that's been done for so long. It's insufficient and I think it's just way too broad. The three Rs are *replacement*, *reduction* and *refinement*. While these ethical guidelines are well intended, these principles, as I said, really fall short of addressing the core problem; the assumption that animal experimentation is justifiable in the first place. So *replacement*, for example, this principle encourages the use of alternative methods when possible.

I actually sit on an ethics committee, on an animal welfare committee and not once have I seen an application that we've seen, not once have I seen an attempt for researchers to use alternative methods [replacement], because it's what's been happening for quite some time and change is always quite incremental and slow...but we have technologies like *Organ on a chip* and they are incredibly effective, but they're underfunded and they're underutilized due to outdated regulations.

...and then we have *reduction*; this means reducing the number of animals used in an experiment. Whilst reducing the number can lessen harm, it doesn't address the injustice of using sentient beings as mere tools for human gain. Again, I believe these, these ethical guidelines are quite tokenistic. Then there's *refinement*, which is about improving laboratory

conditions, which may reduce some suffering and again, it doesn't erase the inherent injustice of exploiting sentient beings for research. So this injustice of exploitation undermines the principle of autonomy, which was our very first principle. So even though these guidelines do make an effort, they do undermine the principles of autonomy. So therefore, true progress demands that we go beyond these compromises and fully embrace innovative, humane research methodologies.

The future of scientific research must lie in innovation that aligns with our ethical principles and there are technologies that do. They offer humane, scientifically superior alternatives to animal models. There's *Organ on a chip*; these devices replicate human organ systems with remarkable accuracy and provide data directly relevant to human biology without harming any animals. There's human based methods and these techniques like microdosing and advanced imaging technologies, which allow us to study human physiology safely and ethically again, without using animals or causing harm.

The in-silico methods are computational models which can simulate complex biological processes and this can predict drug efficacy and toxicity. We can use that instead of trialling drugs on animals, which end up being quite ineffective. By investing in these alternatives, we can accelerate progress, scientific progress, while adhering to our ethical obligations. So, a call to action.

Animal experimentation is scientifically flawed and I believe, ethically indefensible. The principles of autonomy, non-maleficence, beneficence and justice call for us to move beyond outdated practices and embrace innovative, compassionate research methods. We must imagine a future where animal suffering in laboratories is a distant memory, because it's clear that if we are to live up to our ethical principles, we cannot continue to justify animal testing.

There may be some of you who maybe aren't as active in the animal welfare realm and just really love animals and just want to get involved and want to do something, but not sure where to start. So I've put just some ideas down for you, which is advocate for policy change; reach out to your local representatives, writing letters to your MPs urging them to support legislation that supports animal-free research methods.

The change won't happen overnight, but the more letters they get, the more emails they get, the more impact there is. And your voice matters in pushing for a world where animals are no longer subjected to unnecessary suffering. So it does matter. There's education and sharing. Visit the *Animal-Free Science Advocacy* website, you guys have so much information on there, so you can understand these issues more deeply.

Then you can share this knowledge on social media with friends, you can join the movement, you can become a member of Animal-Free Science Advocacy and participate in campaigns. You can support humane research alternatives like donating to organizations and developing and promoting alternatives to animal testing. So there are things that we can do.

So in closing, I just want to urge you to reflect deeply on the ethical implications of animal experimentation.

By challenging entrenched practices and embracing humane alternatives, we can honor the principles of autonomy, justice, non-maleficence and beneficence. Again, these principles are deeply rooted in our society and what governs our society. So they should be applied to other areas as well, such as animal research and factory farming, for example. Through the lens of bioethics, we can reimagine scientific progress as not merely a pursuit of knowledge at any cost, but we see it as an endeavour rooted in compassion, fairness, and integrity.

It urges us to consider the voices that cannot be heard, the animals, and to align our actions with the values of just and an equitable society. So, through this lens of bioethics, the ethical shortcomings of animal experimentation become very apparent, highlighting the urgency to shift towards humane and innovative methods that uphold the dignity and welfare of all sentient beings. It'll be very slow, but we can make a change. Together, we can be a force for transformative change, and we can advocate for a kinder world.

Thank you for your time and for your openness to new perspectives. Thank you. Thank you so much for listening.

(Thank you, Natalie. And thank you, everyone.)