Introduction to Animal Ethics

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Interacting with animals. The issue of research and testing

- Because of evolutionary continuities in the form of behavioural, anatomical, physiological, neurological, biochemical & pharmacological similarities between humans & non-human animals, *that is because animals share many physiological & genetic similarities with humans*, animal experimentation can be conducive to furthering biological & medical knowledge and its applications.

Uses of animals in research

- Basic biological, behavioural or psychological research (e.g. DNA replication, mitochondrial activity…)
- Applied basic biomedical and psychological research (testing of hypotheses about diseases, genetic dysfunctions, testing new therapies).
- Development of drugs and therapeutic chemicals (aiming at discovering specific substances for specific purposes and knowledge as such).
- Food and fibre research.
- Testing of consumer goods for safety, toxicity, irritation
- Use in educational institutions.
- Use for extraction of drugs and biological products (vaccines, serum, monoclonal antibodies..)

Animal GM technology

Actual & potential uses of ***transgenic animals***

In medicine and medical research:

- to improve genetic and physiological knowledge
- to make models for human diseases and gene therapy
- to produce at lower cost proteins to be used for therapeutic purposes
- to provide source of organs or tissues for xenotransplantation, and so on..

also:

In agriculture and agronomical research, such as:

- new knowledge about the function of genes
- new knowledge about control of cell differentiation
- cheaper products
- new health products (vaccines, pharmaceuticals, neutraceuticals)
- conservation of endangered species (preservation of genetic variability of a population)

Gene-editing thechnologies

CRISPR's affordability and efficiency could overshadow long-standing concerns about the generation and release of genetically modified organisms.

Multifarious applications regarding non-human organisms :

(a) Some research projects require animal lines that are specifically bred for certain mutations. **Here, standing classical ethical issues such as animal welfare apply.**

(b) To **improve food for human consumption** (eg. increase muscle mass of animals)- controversial

(c) **Potential eradication of disease** by eradicating disease vectors & invasive species- controversial

(d) Powerful tool in synthetic biology to generate micro-organisms for many applications (biofuels, remediation of pollution…)- controversial

(e) Risks of misapplications. Bioterrorism, biowarfare…

- Re-introducing extinct species. Gene editing, particularly through CRISPR-Cas9 technology, enabling de-extinction by modifying the genome of a living relative to match extinct species' traits. … Revive & restore. Utility based reasoning, eg. restoring diversity, cold resistance in mammoths - controversial

Use of animals in research. Ethical Concerns

- **Moral doubts about invasive animal use in research and testing.** (P. Singer, *Animal Liberation*, 1975). Challenging the moral permissibility of harming animals to advance scientific knowledge.
- **The debate**:

  (i) **Proponents** of animal research in terms of scientific & medical benefits;

  (ii) **Critics of animal experimentation:** results of biomedical experiments on animals **are not transferable** to humans;

  (iii) **Critics on moral grounds**: sentience and the unacceptability of causing pain, suffering, distress, lasting harm, death- independently of benefit;

  (iv) **Mild positions** questioning whether all uses are equally necessary & justifiable (toxicity testing & basic research)-it is imperative to exhaust the potential of other methods not using animals.

FDA Announces Plan to Phase Out Animal Testing Requirement for Monoclonal Antibodies and Other Drugs (April 2025)

- A new approach: **replacing animal testing** with more effective, human-relevant methods.
- Animal testing requirement will be reduced, refined, or potentially replaced using a range of approaches, including AI-based computational models of toxicity and cell lines and organoid toxicity testing in a laboratory setting (so-called "**New Approach Methodologies or NAMs data**").

Utilization and care of vertebrate animals in testing, research, training

- The “Justification Rule”:

  Clear benefits to come from research, whether it is a diagnosis, treatment, prevention, or some other benefit to humans or animals . *Balancing benefits vs. harms.*
- Balancing scientific progress and animal welfare

  (EU directive 2010/63).
- Ethical issues.
- The issue of animal welfare.

Animal welfare

- A state of harmony between the body of the non-human animal and its environment, in which the former seeks to meet its physiological **needs** through adaptation, aided by **good health and environmental opportunities.**
- Developing technologies that promote both the diagnosis of conditions of AW and alternatives to mitigate the effects of captivity, supporting the appropriate use of animals, and recognizing the guidelines of the 3Rs: *reduction, replacement, refinement*.

(Aim: the improvement in performing cognitive tasks, improving results of research in health & learning).

Harmonising ethics and animal welfare science

- Animal ethics to provide a **justified normative framework** to guide scientific research, fostering an integrated approach to animal welfare (incorporating the empirical study of animals).
- On the one hand, science involves questions of ethical conduct, and, on the other hand, ethics needs empirical data to make informed judgments.

Bridging the gap between science and ethics. Key areas

- **Subjective Experience:** Identifying aspects of animals' subjective experiences (e.g., pain, fear, pleasure) relevant to ethical assessment.
- **Principle-based scientific research:** Animal welfare science is value-laden, guided by ethical principles, related **to the no-harm principle**, to animal health and natural living.
- **Practical Application:** Combined approaches improve welfare in research by using empirical evidence to apply ethical standards in a robust, situation-specific way.

Do animals count morally and why? The issue of moral status

- Use and abuse of animals in scientific research.
- The moral divide between humans and non-humans.
- Criteria of moral considerability. Who is to count?

The contribution of Bioethics

Subject matter: the *normative investigation* of moral challenges resulting from the social integration of biomedical advances and biotechnology.

Animal Ethics: subfield of Bioethics

Bioethics Subfields

- Medical Ethics
- Ethics of Research (including **animal experimentation**)
- **Environmental Ethics** (including **Animal Ethics**)

Some spheres of concern

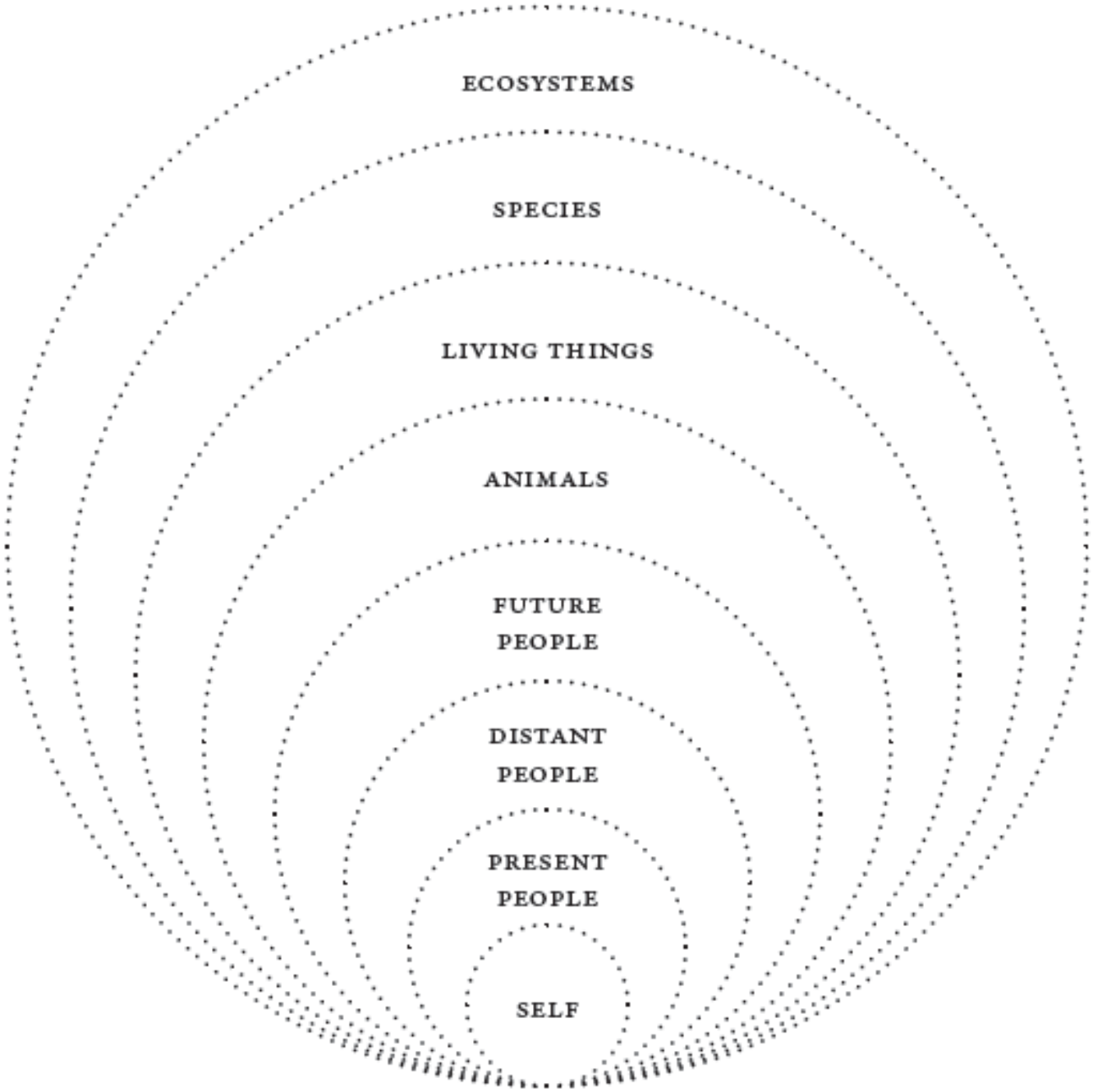
- Ethics of (bio-medical, genetic) research involving human and non-human animal beings.

-Environment (the inter-relation between heath & environment).

The moral continuum between humans and animals

- Life, physical health, bodily integrity, senses, imagination, thinking, bonds of reciprocity, capacity for choice, play, relationships with other species and nature, control of material environment.

  Perception and targeting towards an object of desire.
- *The issue of threshold. Where to draw the moral line?*
- Martha Nussbaum: Exception of fish: their plans do not evolve through time; they live in the moment. The painless death of a fish is morally permissible.


ECOSYSTEMS
SPECIES
LIVING THINGS
ANIMALS
FUTURE PEOPLE
DISTANT PEOPLE
PRESENT PEOPLE
SELF

Approaches in animal ethics:
(i) Intrinsic worth-moral realism

- The issue of anthropocentrism and speciesism.
- Against moralizing nature.
- "Non-anthropocentric" realist eco-centric ethic: there are value- conferring properties in nature.

  Aldo Leopold "ecosystem"
  Albert Schweitzer "will to live"
  Arne Naess "deep ecology"
  Murray Bookchin "social ecology"

Aldo Leopold, “land ethic”:

- That land is a community is the basic concept of ecology, but that land is to be loved and respected is an extension of ethics (Leopold, *A Sand County Almanac* , 1949: vii–ix).
- A thing is right when it tends to preserve *the integrity, stability, and beauty of the biotic community.* It is wrong when it tends otherwise. (Leopold, *A Sand County Almanac,* 1949: 224–5).

Arne Naess "deep ecology movement":

- "**Biospheric egalitarianism**": all living things are alike in having value in their own right, independent of their usefulness to others. The deep ecologist respects this intrinsic value, taking care, for example, when walking on the mountainside not to cause unnecessary damage to the plants.
- "Self-realization" as the reconnection of the human individual with the wider natural environment.

("The Shallow and the Deep, Long-Range Ecology Movement", *Inquiry*, 16, 1973· *Ecology, Community, Lifestyle*, 1989).

Murray Bookchin's "social ecology":

- The "outer" physical world constitutes "first nature", from which culture or "second nature" has evolved. Agents can choose to put themselves at the service of natural evolution, help maintain complexity and diversity, diminish suffering and reduce pollution. We ought to use our capacities of **sociability, communication and intelligence** as if we were "nature rendered conscious", in favour of a richer form of life devoted to nature's preservation (as opposed to its destruction).

(Bookchin, *Toward an Ecological Society*, 1980· "Social Ecology Versus Deep Ecology", *Green Perspectives: Newsletter of the Green Program Project*, numbers 4, 5, 1987 ·*The Philosophy of Social Ecology*, 1990).

(ii) Sentience- Animal welfare

"Other animals, which, on account of their interests having been neglected by the insensibility of the ancient jurists, stand degraded into the class of *things*.[…] It may come one day to be recognized, that the number of legs, the villousity of the skin, or the termination of the *os sacrum [sacred bone,ιερόν οστούν]*, are reasons equally **insufficient** for abandoning a sensitive being to the same fate. What else is it that should trace the insuperable line? Is it the faculty of reason, or perhaps, the faculty for discourse? […]**the question is not, Can they *reason*? nor, Can they *talk*? but, Can they *suffer*?**" (Jeremy Bentham, *Introduction to the Principles of Morals & Legislation1781*

Utilitarians: Bentham, Mill, P.Singer

- P. Singer: What matters morally are the *strength and nature of interests, not whose interests these are*. So, if the only options available in order to save the life of one morally considerable being is to cause harm, but not death, to another morally considerable being, then according to a utilitarian position, causing this harm may be morally justifiable. Similarly, if there are two courses of action, one which causes extreme amounts of suffering and ultimate death, and one which causes much less suffering and painless death, then the latter would be morally preferable to the former (case of factory farming: *the conditions animals are raised and slaughtered cause vast amounts of suffering greater than humans satisfaction).*

Interests as scalar

- If there is a conflict of interests, **crucial** interests will always override i**mportant** interests, important interests will always override **replaceable** interests, etc. So if an animal has an interest in not suffering, which is a crucial interest, or at least an important one, and a person has an interest in eating that animal when there are other things to eat, meaning that that interest is *replaceable*, then the animal has the *stronger interest*, and it would be wrong to violate that interest by killing the animal for food, if there is another source of food available.
- **Thus, some laboratory experiments may be permitted (satisfying crucial or important interests)**
- Problems with utilitarian approaches.

(ii) Being subject of a life (intrinsic value of life)- animal rights

Subjects of a life want and prefer things, believe and feel things, recall and expect things. And all these dimensions of our life, including our pleasure and pain, our enjoyment and suffering, our satisfaction and frustration, our continued existence or our untimely death—all make a difference to the *quality of our life as lived, as experienced, by us as individuals. As the same is true of … animals … they too must be viewed as the experiencing subjects of a life, with inherent value of their own* (**Tom Regan**, *The Case for Animal Rights*,1985).

(iii) Virtue ethics approaches

- Actions affecting animals are subject to moral scrutiny based *not* on rational argumentation but features of *moral experience*.
- Animals are individuals with whom we share a common life. Eating animals is wrong because , in eating animals or using them in other harmful & violent ways, we do not display the *traits of character that kind, sensitive, compassionate, mature, and thoughtful members of a moral community should display*.
- One interested in living a virtuous life will change one's attitudes and reject treating animals as food or tools for research.

(Cora Diamond, *The Realistic Spirit*, 2001 [esp. ch. 11, 13], Stephen R.L Clarke, *The Moral Status of Animals*, 1977)

Rosalind Hursthouse:

"I began to see [my attitudes] that related to my conception of flesh-foods as unnecessary, greedy, self-indulgent, childish, my attitude to shopping and cooking in order to produce lavish dinner parties as parochial, gross, even dissolute. I saw my interest and delight in nature programmes about the lives of animals on television and my enjoyment of meat as side by side at odds with one another…Without thinking animals had rights, I began to see both the wild ones and the ones we usually eat as **having lives of their own, which they should be left to enjoy**. And so I changed. My *perception* of the moral landscape and where I and the other animals were situated in it shifted" (R. Hursthouse, *Ethics, Humans and Other Animals*, 2000: 165–166).

Martha Nussbaum

- “A moral continuum. Animals should be participants in the political community.”
- Judicial standing and representation.
- Proposal for Animal Welfare Department.
- Conflicts of interest and population control.

"We cannot deprive an animal of life or liberty without due process of law. That would be the goal."

From the “capabilities approach” to political justice

- “Every animal should have the opportunity to live a prosperous life for its species.”
- "The full development of our humanity requires the development of our capacities to care for the natural world and the animals in it. And we need to see this in much more positive terms than in zero-sum terms." Nussbaum

Overall:

- A hierarchy of moral importance with humans at the apex, followed by primates and then other mammalian species such as pigs, dogs, rats and mice and other vertebrates such as zebrafish, with invertebrates (for example fruit flies) and single-celled creatures arranged towards the bottom (**the moral sliding scale view**).
- Morally relevant features:
  - sentience
  - higher cognitive capacities
  - the capacity to flourish
  - sociability
  - possession of a life (subjects of a life)
  - traits of character, moral perception

Are morally relevant criteria absolutely constraining or factors to be balanced?

- Consequentalism (weighing consequences, i.e. costs and benefits in the name of interests).
- Intrinsic worth: absolute abolition of all laboratory research involving animals, as their use in experimental procedures violates their intrinsic value.
- Rights-based prohibitions: to experiment on animals is to violate the animal's rights.
- Virtue ethics prohibitions.
- Obligation-based approaches.

Clash of perspective regarding use of animals in research

- **Outcomes:**

  Benefits can outweigh harms

  vs.

- **Intrinsic concerns**:

  Animals are not means to ends

  vs.

- **Moral life particularisms**

  vs.

- **Is there a third way?**

  Avoiding anthropomorphism and speciesm.

(iv) Agency-based approaches

"If a man shoots his dog because the animal is no longer capable of service, he does not fail in his duty to the dog, for the dog cannot judge, but his act is inhuman and damages in himself that humanity which it is his duty to show towards mankind. If he is not to stifle his human feelings, he must practice kindness towards animals, for he who is cruel to animals becomes hard also in his dealings with men" (Kant, *Lectures on Ethics*, (Academie ed., 27: 459).

- From recipience to agency.

Common justificatory ground: our animal nature

- “While it is our rational nature that allows us to value ourselves and each other as ‘ends in themselves’ and to make claims on each other in the name of that value, we make these claims on behalf of our animal nature as well as our rational and human nature. And this means that we must recognize similar claims on behalf of other animals.“ Christine Korsgaard

We are moral animals

- "Because we have the capacity to evaluate the influence of our instincts, desires, emotions and attachments on our actions, we are not completely governed by them. We have the capacity to be governed instead by normative standards and values, **by a conception of what we ought to do**". **We are moral animals** (Christine Korsgaard, *Sources of Normativity*, 1996, et al).
- We are **normatively self-governing agents.** To be normatively self- governing an entity must be able to choose its own ends. Animals live according to their natures not according to their values or their free choices or their personal conceptions of what is good.

Extending moral scope. An emerging ethical awareness

Against animal suffering. Legislation in all major countries on both sides of the Atlantic (control of pain and suffering, enriching proper living environment and assuring proper care).

- ✓ That animals are used in research only when it is absolutely necessary (no other alternatives).
- ✓ That when animals are used in research they are humanely treated.

When can animals be used?

- When confirmation has been made that research activities are not unnecessarily duplicating previously conducted experiments. Procedures selected that:
- (a) use the minimum number of animals, (b) involve animals with the lowest capacity to experience pain, suffering, distress or lasting harm, (c) cause the least pain, suffering, distress or lasting harm, and are most likely to provide satisfactory results.

Morally responsible research

- Researchers have an ethical responsibility to treat animals humanely.
- They also have an ethical responsibility to avoid or minimize the pain and distress animals endure.
- *The three R's. Moral Restrictions.*

  Reduce the number of animals used to a minimum.

  Refine the way experiments are carried out, to make sure animals suffer as little as possible.

  Replace animal experiments with non-animal techniques wherever possible.

(Russell and R.L. Burch, *The Principles of Humane Experimental Technique*, 1959).

[…] and perhaps 5 Rs (?)

- Reuse
- Rehabilitate

Procedural principles- systems

- A system of authorization of people, places, projects.
- Ethical, impartial and independent evaluation of projects by an independent body.
- **Training and competence. Common training standards across EU.**

  EU directive 2010: The ultimate goal is full replacement of procedures on live animals for research & education, as soon as it is scientifically possible. In the meantime methods such as mathematical models, computer simulation, in vitro biological systems should also be considered.
- Standards of **scientific integrity**, decisions pertaining to animal welfare and responsible care & use.

- An enlarged *procedural consensus:*

  Consensus that certain democratic procedures are justified, such as a **system of licensing and control of animal research** that is deemed necessary, by fine tuning the regulations, relaxing some restrictions and introducing others.

  Publicity, transparency, accountability.

- - All involved need to be able to have access to relevant information about research involving animals, such as the goals, welfare implications and alternatives to research, in order to judge whether specific types of research are justifiable in respect of their normative frameworks.
- - The discussion about appropriate policies must be conducted in a *fair and informed manner*, which permits all reasonable participants to argue their case.
- - There must be a genuine possibility for policies to be readjusted. For this to be achieved, there must be public engagement and dialogue involving scientists, policy makers & the public.

Extended moral concern. Animals are not mere things

- Korsgaard:"what we demand, when we demand … recognition, is that our natural concerns—the objects of our natural desires and interests and affections—be accorded the status of values, values that must be respected as far as possible by others. And many of those natural concerns—the desire to avoid pain is an obvious example—spring from our animal nature, not from our rational nature" ("Facing the Animal You See in the Mirror," *Harvard Review of Philosophy*, 16, 2007).
- What we, as moral agents, construct as valuable and normatively binding is not only our rational or autonomous capacities, but the needs and desires we have as *living, embodied beings*. Insofar as these needs and desires are valuable for agents, the ability to experience similar needs and desires in recipients of our agency (patients) ought also be valued.

Thank you for your attention