

Ethical questions in animal research



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Animal welfare

= animal's experience of its own mental and physical state

- Feelings (also positive; not only minimizing negative feelings)
- Biological activity & functioning

Factors that impair animal welfare

- Severe, persistent or frequent stress
- Failure to adapt to environment

Welfare can be improved by

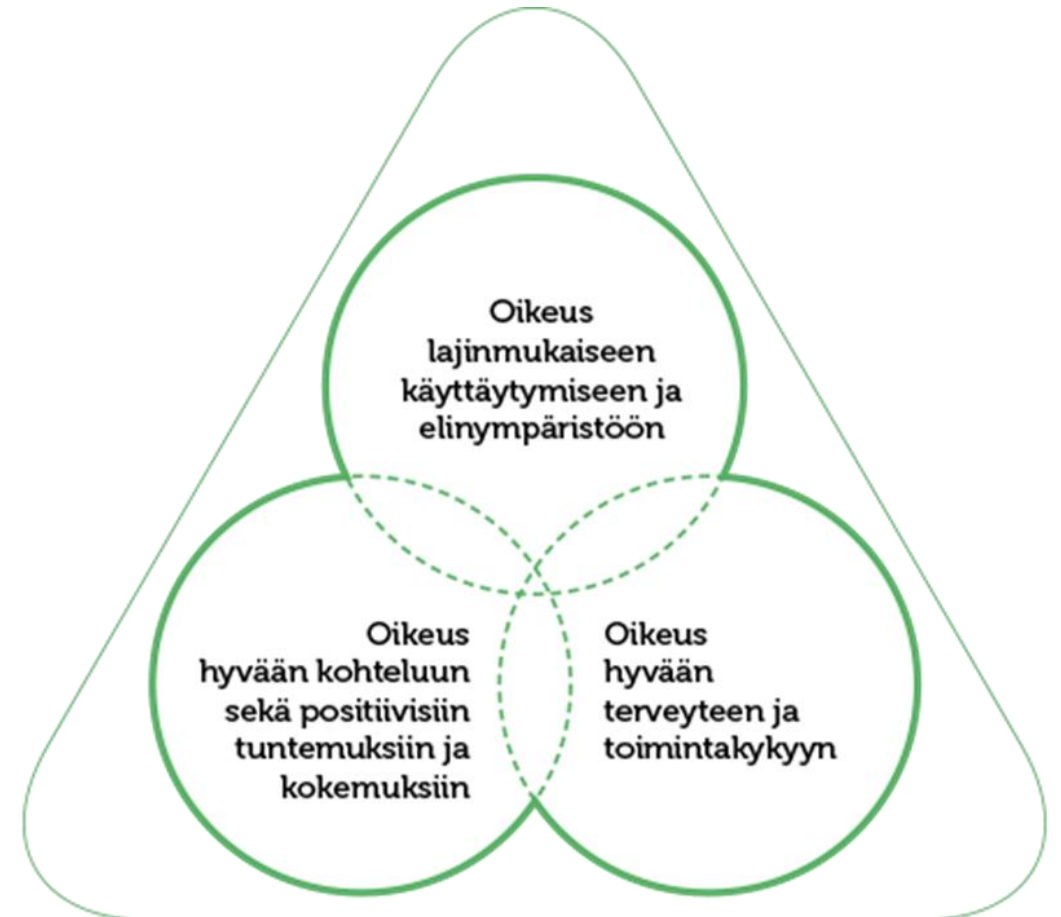
- Housing conditions
- Care
- Handling
- Breeding

Animals have no rights by the law

- animal = object

But: Animal Welfare Act 2024 (covers ALL animals)

- "Animals must have the opportunity to fulfill their most essential behavioral needs (movement, rest, feeding behavior, thermoregulation, etc.)"



Directive 2010/63/EU on protecting animals used for scientific purposes (koe-eläindirektiivi)



'Procedure'

- Causing animal pain comparable to a sting of a needle (or greater) > need for permission

Directive doesn't apply to:

- a) non-experimental agricultural practices;
- b) non-experimental clinical veterinary practices;
- c) veterinary clinical trials required for the marketing authorisation of a veterinary medicinal product;
- d) practices undertaken for the purposes of recognised animal husbandry;
- e) practices undertaken for the primary purpose of identification of an animal;
- f) practices not likely to cause pain, suffering, distress or lasting harm equivalent to, or higher than, that caused by the introduction of a needle in accordance with good veterinary practice.

Weighing of benefits and harms

The Project Authorisation Board
(hankelupalautakunta, previous ELLA):

- Lesser benefit acceptable if harm is minimal (and vice versa)
 - Also relevant in assessing ethical questions without animal experimentation subject to license!

Benefit: what-who-how-when

- Direct benefits of the project: what information is obtained? How can it be used?
- Long-term potential?
- Broader significance of the information and outcomes?

Benefits:

- Societal
 - Human health & welfare
 - Animal health & welfare
 - Benefits for the environment
- Socioeconomic
 - not solely economic!
- Scientific
- Educational
- Safety and efficacy



When the Project Authorisation Board permit is not needed:

Which animals are concerned? What should be taken into account?

Wild animals

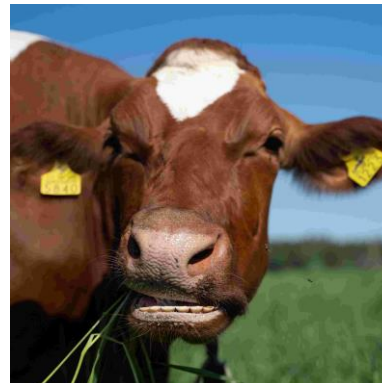
- Bonus factors to be considered:
 - traffic, hunting, fishing, prevention of invasive alien species, industry, tourism, agriculture and forestry, infrastructure, other land use

Pets (companion and hobby animals)

- Kept at people's homes
- As patients or clients of veterinary clinics

Production animals

- Kept in barns, stalls etc
- Kept in outdoor facilities, fenced areas, pastures etc
- Usually under domestic privacy



Example: The Natural Sciences Ethics Committee of Luke



A research project in planning must be reviewed if it may cause significant harm or risks to:

- endangered species or habitats, valuable cultural environments or biodiversity
- **animal welfare or health**
- soil or water pollution or significant discharges into water bodies or soil
- researcher's health or safety, bystanders or their property.

The Committee does not handle:

- Animal testing activities
- Research in human sciences that focuses on people or uses research methods in the human sciences
- Medical research
- GMO and gene editing research

Ethical principles and review of research on the environment and organisms (Luke)

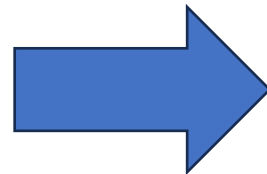
Research is carried out only if the information cannot be obtained by other means, and data are not already available.

The location of the test areas and research methods are selected to minimise the harm caused to the environment and organisms, especially endangered species and habitats.

Particular attention must be paid to animal welfare. No unnecessary pain and suffering are inflicted on animals [...].

The results of the experiments shall be made available as widely as possible.

Personal data and information related to the habitats or nesting sites of endangered species are protected.



Do the benefits of the study outweigh the disadvantages?

Is it assessed whether the methods, location and measures are sufficient from the perspective of minimising harm and risks?

What are the effects on the environment, organisms and humans or their property?

Does the result of the study pose a dual-use risk? (e.g. chemicals or microbes that could pose a risk to human or environmental health or safety)



Cases in which ethical revision was recommended:

- The effects of large predators, food availability, and landscape structure on the space use and movement of certain animal species. Tagging the animals with collars or ear tags.
- Forest management in different succession phases (birds and endangered plant species involved)
- In reindeer roundup: castration with or without painkillers
- The resting behaviour of horses when using various bedding materials; video recording
- Comparison of clinical patients (cats) with different treatments at the veterinary hospital
- Study on prevalence of certain clinical symptoms in patient dogs
- On-farm study on different treatments and painkillers in painful operations in piglets
- On-farm study on animal behaviour in different feeding groups of cows

Open questions and critical steps when using animals in research

To ensure animal welfare:

- Studies involving live animals that are not reviewed / assessed at all?
- Should we do the revision every time we use live animals? At least the risks should be assessed!
- Studies involving samples, carcasses, registries etc?



To ensure (also) human welfare:

- Studies using privately owned pets or production animals:
 - Is the owner well enough informed about the research, what will be done, which information will be gathered and stored, and how?
 - Whom to contact if something weird happens?
 - If the animals are videoed at home:
 - is it possible that personal data is recorded (unintentionally)? What to do if that happens?
 - Who has access to the records?

Thank you for listening!



Photos: Olli Leino

