ETHICAL ISSUES IN ANIMAL RESEARCH

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• The previous session explained some of the ethical principles of psychology. You probably noticed that these principles dealt mainly with humans and not animals. In session 10, the use of animals in psychological research was emphasised. This session will explain some of the specific ethical principles governing researches involving the use of animals.
At the end of this session, you will be able to:

- Mention the ethical principles governing the use of animals

- Explain some of the ethical principle governing the use of animals
Reading List

- The session notes titled “Ethical issues in Animal Research”
INTRODUCTION
Basic animal rights

"The question is not, can they reason? nor, can they talk? but, can they suffer?"

Jeremy Bentham 1789 *Introduction to the Principles of Morals & Legislation*
Animal Cruelty is against the Law!

Difficult Topic, No Easy Answers

Very Political

Animal Rights vs. Animal Welfare
How Animals are used

- Animals for meat
- Animals for milk
- Animals for fiber
- Animals for pharmaceutical production (live)
- Animals for pharmaceutical production (organs)
- Animals for research
- Animals for companionship
- Animals for exhibition
Animals used for Research

- Medical Research
- Consumer Research
- Agriculture Research
- Psychological and Social Research
- Environmental Research

- Are there alternatives?
Use of animals in research

• Animals are widely used in experiments
  – Understanding normal physiology
  – Understanding gene function
  – Animal models of human disease
  – Research into animal disease
  – Safety testing and toxicology

• There are a range of views on whether this is acceptable
Limitations of testing in patients

- Ethical concerns with use of poorly tested protocols.
- Practical concerns: organisation, recruitment and cost.
- Requirement to do no harm which is in contrast to cell and animal studies.
Laboratory Animals for Research

- 23 million mice are used in research each year (95%)
- Rats make up the second largest group
- Followed by birds
Uses of Animals in US Laboratories

Uses of Animals in US Laboratories (Including rats, mice and birds)

- Biomedical Research
- Drug and Vaccine Development
- Consumer Product Testing
- Education
- Other
International estimates of animals used in research

- Many countries do not provide comprehensive statistics.

- The major centres for research:
  - USA (about 15 million procedures)
  - EU (about 11 million procedures)
  - Japan (about 5 million procedures)
  - Canada (2 million), Switzerland (less than 1 million) and Australia (less than 1 million).

- Can estimate that other countries might carry out 10 million animal procedures every year.

- The total worldwide maximum is in the order of 50 million animal procedures per year.
Numbers killed for food

• UK meat and fish eaters consume 2.5 billion animals every year.

• 140 billion animals slaughtered every year worldwide.

• Of these estimates suggest that 90 billion fish are killed worldwide each year.
• UK eats nearly 700 times the numbers used in research.

• Cats estimated to kill 200 million wild animals per year in the UK – 60 times that used in research
What are the Issues with Animal Research
Should animals be used as research subjects?
You Thought the Politics was Over
Animal Use in Research

Political Campaign
Economic Loss

• Treating animals inhumanely results in economic costs.
  – Bruising of animals costs the industries millions of dollars each year.
    • Australia $36 million
• With Pigs, using electric prods causes bruising.
• Improvements in these areas will improve animal welfare as well as human safety.
Examples
Absolutely No Animal Research - Why?

1. Animals have rights!

2. Animals surely deserve to live their lives free from suffering and exploitation.

3. Animals are not ours to:
   - eat
   - wear
   - experiment on
   - use for entertainment
   - abuse

People for the Ethical Treatment of Animals
http://www.peta.org/
Benefits as a Result of Animal Research

- Since the early 1900’s life expectancies have increased from 47 to about 77.

- Economic Impact – the medical industry alone recognized about a 57 trillion dollar savings in the 70’s and 80’s

- Drug treatments, vaccines and surgical procedures have been developed to improve the quality of life for animals
Alright so, we know opinions differ

Yes

No
But, this is an ongoing debate that we’re not here to engage!
The fact is animal research does occur and we need to know our responsibilities?
• Animal Ethics issue began in Europe in the 1960s.
  • Ruth Harrison’s *Animal Machines*
  • Brambell Committee 1965

• 1993 UK Farm Animal Welfare Council published the 5 new freedoms.
1866 – Henry Bergh founds American Society for the Prevention of Cruelty to Animals

1896-1900 – Legislation is proposed in Congress to restrict vivisection via a system of regulations and periodic inspection of laboratories.

1951 – Animal Welfare Institute founded

1954 – Humane Society of the United States founded
1958 – Federal Humane Slaughter Act is passed.

1966 – Congress passes the American Welfare Act (AWA)

1990 – The Animal Legal Defense Fund and the HSUS both sue the USDA. The USDA extends AWA coverage to horses and other farm animals used in research.
<table>
<thead>
<tr>
<th>What Happened?</th>
<th>In Response</th>
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<td>• 1965 (July) – Stolen Pets</td>
<td>Resnick introduces bill to congress</td>
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<td>• 1966 (Feb) – LIFE magazine article</td>
<td>Lab Animal Welfare Act signed into law</td>
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<td>• 1981 – Silver Spring Monkey Incident</td>
<td>1985 – revisions to the AWA (IACUC) and the Health Research Extension Act signed into law</td>
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<td>• 1983 – PA University head injury study</td>
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The Legal Obligations
Laws and Regulations

  – Defines how animals are used, treated, housed, transported, processed, etc.

• Many different organizations have established rules and regulations:
  • Professional Rodeo Association - have 60 rules and regulations.
  • *Humane Slaughter Act 1958*
Laws and Regulations

- **Humane Methods of Slaughter Act 1978**
  - extended the 1958 policy to all Federally inspected slaughter plants

- **Food Safety and Inspection Service (FSIS) enforces the Act**
  - veterinarian and inspectors present
Two Major Points of View

• (1) **Animal Rights** - the goal is ending all animal use
  • no food, clothing, entertainment, medical research or hunting

• (2) **Animal Welfare** – demands that animals must be treated and used humanely.
  • Animals can be used for any purpose, but the responsibility of care and humane treatment lies with the human
Animal welfare is the theory which maintains that it is morally acceptable to use nonhuman animals for human purposes as long as they are treated humanely and do not impose unnecessary suffering on them.

The goal of animal welfare is the regulation of animal use.
Organizations

- The Animal Welfare Information Center (AWIC)
- Animal Agriculture Alliance
- The Animal and Plant Health Inspection Service
- The American Veterinary Medical Association (AVMA)
- The California Veterinary Medical Association (CVMA)
- People for the Ethical Treatment of Animals (PETA)
- The Animal Place
- The Humane Society of the United States (HSUS)
The animal rights theory maintains that we have no moral justification for using nonhuman animals for human purposes however humanely we treat them.  

The goal of animal rights activists is to abolish the use of animals.
Animal Welfare Act

- A series of laws regulating animal use activities.
- The enforcing body of the animal welfare act is the United States Department of Agriculture.
- Violation of the Act is punishable under federal law and could lead to research program suspensions, fines and/or imprisonment.
Public Health Service (PHS) Policy on Human Care and use of Laboratory Animals

- Any time The Public Health Service funds research involving animals the PHS Policy is applicable.

- The Office of Laboratory Animal Welfare, National Institutes of Health administers the PHS Policy through the Research Extension Act.

- Deviation from the PHS Policy could result in loss of funding from Public Health Service organizations.
What do the regulations ensure?

- That animals are used in research only when it’s absolutely necessary.
- That when animals are used in research they are humanely treated.
When can animals be used?

1. When there are no other alternatives.
2. When confirmation has been made that research activities are not unnecessarily duplicating previously conducted experiments.
3. Experiments involving animals are relevant to human or animal health, will advance scientific knowledge, or will be for the good of society.
The Controversy Continues – Ethical responsibilities when using animals

- People also have an ethical responsibility to respect and treat animals humanely.
- They also have an ethical responsibility to avoid or minimize the pain and distress animals endure.

The Regulations and Policies help to ensure animals are treated humanely.
How? The law specifically states:

1. When animals are used for research a scientist must avoid or minimize discomfort, distress, and painful situations.

2. If a procedure involves more than momentary or slight pain or distress, it must be performed using appropriate pain relieving drugs (e.g., sedatives, analgesia or anesthesia).

3. If animals are to be transported, appropriate arrangements must be made to ensure the process is comfortable and occurs with as little stress as possible.

4. The living conditions of animals must be clean and appropriate for the species.
Guidelines and Regulations used to ensure animals are humanely treated

1. Guide for Care and Use of Laboratory Animals
2. The Guide for Care and Use of Agriculture Animals in Agricultural Research and Teaching
3. Report of the AVMA Panel on Euthanasia
4. Guidelines for the Use of Fish in Research
5. USDA Animal Care and Use Policies
6. Animal Welfare Act Regulations
7. Public Health Services Policy
Regulatory Oversight-the case of USA

How do federal and state agencies ensure the regulatory requirements are satisfied?
Regulatory Oversight

How do federal and state agencies ensure the regulatory requirements are satisfied?

Through the Institutional Animal Care and Use Committee (IACUC)
What is the IACUC

- A committee of your peers that have been empowered by law to ensure all research activities involving animals satisfy federal, state and local regulations & policies governing the use of animals in research.

- The committee is comprised of a:
  - Chairperson
  - Veterinarian
  - Scientist - Must be experienced in using research animals.
  - Non-Scientific Member – Conducts protocol evaluations not based on the science.
  - Nonaffiliated Member – Represents the general interests of the community.
The IACUC is legally required to oversee all animal care and use activities conducted at their institution.
How does the committee satisfy their responsibilities?

They review and approve all research, teaching or testing activities that involve animals before scientists begin their experiments to ensure:

- there are no alternatives to using animals,
- that research is not being unnecessarily duplicated, and
- that the experiment is relevant to human or animal health and will be for the good of society.
IACUC Oversight

- Review of animal use procedures:
  - Reviews and approves all procedures to be conducted on animals.
  - Identify potentially painful and stressful procedures and ensure medications are being used to eliminate or minimize the pain/distress.
  - Monitor the research activities to ensure only IACUC reviewed & approved procedures are being conducted on animals.

- Inspect the living quarters of animals at least twice a year to ensure:
  - Animals are checked daily that their housing facilities are clean and that they regularly receive fresh food & water.
  - They are appropriate for the species being housed.
  - Animals are receiving appropriate veterinary care.

- The IACUC also ensures:
  - The number of animals used for the research will yield statistically valid results.
  - The appropriate specie of animal is being used for the project.
  - Humane experimental endpoints have been established.
  - Appropriate methods of euthanasia are being utilized.
Peers Providing Oversight at their Own Institution?

Does this sound like the Fox guarding the hen house?
Outside Oversight?

- Remember – one IACUC member is a non-affiliated member and is acting on behalf of the community.

- Reports made to federal agencies are available to the public for review.

- Opponents of animal research will do everything in their power to hold research institutions accountable to federal regulations and policies.
1. Using animals for research activities is a privilege, not a right!

2. It is a privilege that a scientist or an institution can loose if the ethical (e.g. legal and moral) responsibilities are not satisfied.
Nuremburg Code

- The voluntary consent of the human subject is absolutely essential.
- The experiment should be such as to yield fruitful results for the good of society, unprocurable by other methods or means of study, and not random and unnecessary in nature.
- The experiment should be so designed and based on the results of animal experimentation and a knowledge of the natural history of the disease or other problem under study, that the anticipated results will justify the performance of the experiment.
- The experiment should be so conducted as to avoid all unnecessary physical and mental suffering and injury.
No experiment should be conducted, where there is an *a priori* reason to believe that death or disabling injury will occur; except, perhaps, in those experiments where the experimental physicians also serve as subjects.

The degree of risk to be taken should never exceed that determined by the humanitarian importance of the problem to be solved by the experiment.

Proper preparations should be made and adequate facilities provided to protect the experimental subject against even remote possibilities of injury, disability, or death.
Nuremburg Code

• The experiment should be conducted only by scientifically qualified persons. The highest degree of skill and care should be required through all stages of the experiment of those who conduct or engage in the experiment.

• During the course of the experiment, the human subject should be at liberty to bring the experiment to an end, if he has reached the physical or mental state, where continuation of the experiment seemed to him to be impossible.

• During the course of the experiment, the scientist in charge must be prepared to terminate the experiment at any stage, if he has probable cause to believe, in the exercise of the good faith, superior skill and careful judgment required of him, that a continuation of the experiment is likely to result in injury, disability, or death to the experimental subject.
1. What is the difference between Animal Rights and Animal Welfare?

2. What are some of the organizations that promote animal rights and what is their recurring theme(s)?

3. What are some of the organizations that promote animal welfare and what is their recurring theme(s)?

4. There are a large number of animals utilized for research. Do you think this is right? Are there alternatives, what are they?

5. Do you think that people should be allowed to have pets?

6. Should we be concerned about how farm animals are treated?

7. Where do you stand on this issue and why? (I believe that...)