

Ethics in Research

Directions:

Step 1: Please read the APA Ethical Guidelines for research.

Step 2: Read the directions related to the four animal research proposals (Case 1-4). Be sure that your rejection or approval includes the reasoning used by your committee and references the APA Ethical Guidelines specifically.

~~Step 3: Create an experimental research proposal for human research that violates ALL of the APA guidelines in one experiment. Be creative!~~

~~Step 4: Write a response for your entire group.~~

APA Ethical Guidelines

Ethical considerations are a major component in research design. You should know and understand the ethical guidelines established by the APA (American Psychological Association) for human and animal research and be prepared to apply the concepts to specific research designs. Any type of academic research must first propose the study to the ethics board or *institutional review board (IRB)* at the institution. The IRB reviews research proposals for ethical violations and/or procedural errors. This board ultimately gives researchers permission to go ahead with the research or requires them to revise their procedures.

Animal Research

Groups advocating the ethical treatment of animals are focusing more and more attention on how animals are treated in laboratory experiments. The APA developed strict guidelines about what animals and how animals can be used in psychological research. Ethical psychological studies using animals must meet the following requirements.

1. They must have a clear scientific purpose.
The research must answer a specific, important scientific question.
Animals are chosen because they are best-suited to answer the question at hand.
2. They must care for and house animals in a humane way.
3. They must acquire animal subjects legally. Animals must be purchased from accredited companies. If wild animals must be used, they need to be trapped in a humane manner.
4. They must design experimental procedures that employ the least amount of suffering feasible.

Human Research

Research involving human subjects must meet the following standards:

1. *Informed consent*—participants must know that they are involved in research and give their consent.
2. *Deception*—if the participants are deceived in any way about the nature of the study, the deception must not be so extreme as to invalidate the *informed consent*. The research the participants thought they were consenting to must be similar enough to the actual study to give the informed consent meaning. Also, researchers must be very careful about the trauma deception may cause (see *Risk*, below).
3. *Coercion*—participants cannot be coerced in any way to give consent to be in the study.
4. *Anonymity*—the identities and actions of participants must not be revealed in any way by the researcher.
5. *Risk*—participants cannot be placed at significant mental or physical risk. This clause requires interpretation by the review board. Some institutions might allow a level of risk other boards might not allow. This consideration was highlighted by Stanley Milgram's obedience studies in the 1970s in which participants thought they were causing significant harm or death to

Ethical Issues

1. General	Investigators must consider the ethical implications and psychological consequences for research participants bearing in mind ethnic, cultural, social, age and sex differences.	Check design with members of the population from which the participants are to be selected. If this isn't possible, ask people who can act on their behalf.
2. Consent	Obtain consent from participants whenever possible, preferably 'informed consent', i.e. explain, as fully as possible, the purpose and design of the research before proceeding.	If the procedures are likely to involve physical or psychological discomfort, the researcher must seek the guidance of colleagues before asking for consent.
3. Deception	Avoid this wherever possible. There will occasions when to reveal the research hypothesis to participants would make the research pointless and so deception would be considered.	Do not use if there is an alternative procedure. If deception is planned, consult with others about it, e.g. individuals similar to the participants, colleagues and ethics' committees.
4. Debriefing	This must be 'active intervention', i.e. the psychologist must be ready to discuss procedures and findings with participants and try to ensure that they are left in the same state in which they entered the research situation.	Intention to debrief participants is no excuse for exposing them to risk, neither is the inability to debrief them (e.g. as in some observational research).
5. Withdrawal from the investigation	Participants must be told of their right to withdraw, without penalty, at any stage of the research. Researchers must stop any procedure which appears to be causing discomfort.	This may be difficult to achieve (e.g. in observational research). After debriefing, participants have the right to withdraw their data.
6. Confidentiality and privacy	The Data Protection Act 1984 means that participants can expect that their identities and any information provided by them will be treated confidentially.	Psychologists have a duty to break this guideline if not to do so would place someone at great risk. A fully informed participant may give consent to their identity being revealed.
7. Protection of participants	Protection of participants from mental or physical harm during psychological investigations including invasion of privacy is essential.	Must show great sensitivity in discussion of results with participants. They should know how to contact the investigator if an unexpected consequence of the research arises. The researcher must correct or remove the problem.
8. Observational research	It is important to respect people's privacy and wellbeing especially as it may not be possible to obtain informed consent or debrief participants.	Make observations only where people would normally expect to be in public view and not where they expect to be unobserved.
9. Giving advice to participants	A researcher may uncover a significant psychological or physical problem. This must be revealed to the participant and professional help advised.	Few research psychologists are expert enough to spot problems! They should only offer help themselves if they are appropriately qualified.
10. Monitoring colleagues	Investigators have a moral responsibility to maintain high ethical standards and should monitor their own work and that of colleagues.	This applies at any level of research. All research projects need to be carefully assessed on ethical grounds before proceeding.

HANDOUT 1-10

1 paragraph per case

Instructions: Your group is the Animal Care Committee for your university. It is the committee's responsibility to evaluate and either approve or reject research proposals submitted by faculty members who want to use animals for research or instructional purposes in psychology, biology, or medicine. The proposals describe the experiments, including the goals and potential benefits of the research as well as any discomfort or injury that they may cause the animal subjects. You must either approve the research or deny permission for the experiments. It is not your job to suggest improvements on technical aspects of the projects, such as the experimental design. You should make your decision based on the information given in the proposal.

CASE 1

Professor King is a psychobiologist working on the frontiers of a new and exciting research area of neuroscience, brain grafting. Research has shown that neural tissue can be removed from the brains of monkey fetuses and implanted into the brains of monkeys that have suffered brain damage. The neurons seem to make the proper connections and are sometimes effective in improving performance in brain-damaged animals. These experiments offer important animal models for human degenerative diseases such as Parkinson's and Alzheimer's. Dr. King wants to transplant tissue from fetal monkey brains into the entorhinal cortex of adult monkeys; this is the area of the human brain that is involved with Alzheimer's disease.

The experiment will use 20 adult rhesus monkeys. First, the monkeys will be subjected to ablation surgery in the entorhinal cortex. This procedure will involve anesthetizing the animals, opening their skulls, and making lesions using a surgical instrument. After they recover, the monkeys will be tested on a learning task to make sure their memory is impaired. Three months later, half of the animals will be given transplant surgery. Tissue taken from the cortex of monkey fetuses will be implanted into the area of the brain damage. Control animals will be subjected to sham surgery, and all animals will be allowed to recover for 2 months. They will then learn a task to test the hypothesis that the animals having brain grafts will show better memory than the control group.

Dr. King argues that this research is in the exploratory stages and can only be done using animals. She further states that by the year 2000 about 2 million Americans will have Alzheimer's disease and that her research could lead to a treatment for the devastating memory loss that Alzheimer's victims suffer.

CASE 2

Dr. Fine is a developmental psychobiologist. His research concerns the genetic control of complex behaviors. One of the major debates in his field concerns how behavior develops when an animal has no opportunity to learn a response. He hypothesizes that the complex grooming sequence of mice might be a behavior pattern that is built into the brain at birth, even though it is not expressed until weeks later. To investigate whether the motor patterns involved in grooming are acquired or innate, he wants to raise animals with no opportunity to learn the response. Rearing animals in social isolation is insufficient because the mice could teach themselves the response. Certain random movements could accidentally result in the removal of debris. These would then be repeated and could be coordinated into the complex sequence that would appear to be instinctive but would actually be learned. To show that the behaviors are truly innate, he needs to demonstrate that animals raised with no opportunity to perform any grooming-like movements make the proper movements when they are old enough to exhibit the behavior.

Dr. Fine proposes to conduct the experiment on 10 newborn mice. As soon as the animals are born, they will be anesthetized and their front limbs amputated. This procedure will ensure that they will not be reinforced for making random grooming movements that remove debris from their bodies. The mice will then be returned to their mothers. The animals will be observed on a regular schedule using standard observation techniques. Limb movements will be filmed and analyzed. If grooming is a learned behavior, then the mice should not make grooming movements with their stumps as the movements will not remove dirt. If, however, grooming movements are innately organized in the brain, then the animals should eventually show grooming-like movement with the stumps.

In his proposal, Dr. Fine notes that experimental results cannot be directly applied to human behavior. He argues, however, that the experiment will shed light on an important theoretical debate in the field of developmental psychobiology. He also stresses that the amputations are painless and the animals will be well treated after the operation.

CASE 3

Your university includes a college of veterinary medicine. In the past, the veterinary students have practiced surgical techniques on dogs procured from a local animal shelter. However, there have been some objections to this practice, and the veterinary school wants the approval of your committee to continue this practice. They make the following points.

1. Almost all of these animals will eventually be killed at the animal shelter. It is wasteful of life to breed animals for the vet school when there is an ample supply of animals that are going to be killed anyway, either because their owners do not want them or because they are homeless.
2. It costs at least 10 times as much to raise purebred animals for research purposes; this money could be better used to fund research that would benefit many animals.
3. Research with dogs from animal shelters and the practice surgeries will, in the long run, aid the lives of animals by training veterinarians and producing treatments for diseases that afflict animals.

A local group of animal welfare activists has urged your committee to deny the veterinary school's request. They argue that the majority of these animals are lost or stolen pets, and it is tragic to think that the dog you have grown to love will wind up on a surgical table or in an experiment. Furthermore, they claim that as people become aware that animals taken to shelters may end up in research laboratories, they will stop using the shelters. Finally, the activists point out that in countries such as England, veterinary students do not perform practice surgery; they learn surgical techniques in an extensive apprenticeship.

CASE 4

The Psychology Department is requesting permission from your committee to use 10 rats per semester for demonstration experiments in a physiological psychology course. The students will work in groups of three; each group will be given a rat. The students will first perform surgery on the rats. Each animal will be anesthetized. Following standard surgical procedures, an incision will be made in the scalp and two holes drilled in the animal's skull. Electrodes will be lowered into the brain to create lesions on each side. The animals will then be allowed to recover. Several weeks later, the effects of destroying this part of the animal's brain will be tested in a shuttle avoidance task in which the animals will learn when to cross over an electrified grid.

The instructor acknowledges that the procedure is a common demonstration and that no new scientific information will be gained from the experiment. He argues, however, that students taking a course in physiological psychology must have the opportunity to engage in small animal surgery and to see firsthand the effects of brain lesions.

Source: Herzog, H. A. (1990). Discussing animal rights and animal research in the classroom. *Teaching of Psychology*, 17, 90-94.