

## 2021 APA TOPSS Charles T. Blair-Broeker Excellence in Teaching Awards

Lesson Plan  
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| <b>National Standards for the Teaching of Psychology</b> | <p>Standard Area: Research Methods, Measurement and Statistics</p> <ul style="list-style-type: none"><li>● Content Standard 2:<ul style="list-style-type: none"><li>○ Ethical issues in research with human and non-human animals</li></ul></li><li>● Performance Standard 2:1<ul style="list-style-type: none"><li>○ Identify ethical standards psychologists must address regarding research with human participants.</li></ul></li><li>● Performance Standard 2:2<ul style="list-style-type: none"><li>○ Identify ethical standards psychologists must address regarding research with non-human animals.</li></ul></li></ul> |
| <b>Objectives</b>                                        | <p>Students will be able to identify appropriate ethical standards in the research of human and non-human animals in the field of psychology. Students will be able to demonstrate and differentiate between ethical guidelines, their purpose, and reasons for their establishment.</p>                                                                                                                                                                                                                                                                                                                                         |
| <b>Assessment</b>                                        | <p>Formative assessment is able to occur at several different places throughout this lesson via discussion and the use of questioning with entrance and/or exit “tickets”. Summative assessment may occur at the end of the two day lesson or as part of a greater unit assessment for all topics related to psychological research methods.</p>                                                                                                                                                                                                                                                                                 |

Day 1      Class Period Approximately 40-50 minutes in length

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| <p>Introduction to the topic of ethics is psychological research</p> | <p>Begin with the posting of inquiry questions (entrance ticket) for students to complete on their own using either a digital platform or paper/pencil.</p> <ul style="list-style-type: none"> <li>• <i>Can psychologists perform experimental research on human beings?</i></li> <li>• <i>Can psychologists perform experimental research on non-human animals? Explain your response in 1-2 sentences.</i></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <p>Classroom Discussion</p>                                          | <p>Begin a classroom discussion about student responses (if needed students may wish to begin a discussion in “families” or peer groups before engaging in whole group discussion). Using probing questions, determine if students think psychologists can or can not perform experiments on humans and or non-human animals. Some students may be strictly opposed to the idea of using human or non-human animals for psychological research, thus the conversation should be led to the conclusion that yes humans and non-human animals can be used in psychological research. Then pose the question about what sort of safeguards students think should be put in place for experimental research purposes for humans and animals. This proposed question can repeat the writing then peer group discussion strategy or can simply be posed to the whole group and develop a written list of ideas on the board or other display materials in the classroom.</p> |
| <p>Content information presentation</p>                              | <p>Once students have created their own list of “rules” for the ethical treatment of humans and animals in psychological research, share with them the guidelines imposed by the American Psychological Association:</p> <ul style="list-style-type: none"> <li>• Acquire, care for, use and dispose of animals in compliance with current federal, state and local laws and regulations, and with professional standards.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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|                                                   | <ul style="list-style-type: none"> <li>• Ensure that all individuals under their supervision who are using animals have received instruction in research methods and in the care, maintenance and handling of the species being used, to the extent appropriate to their role.</li> <li>• Make reasonable efforts to minimize the discomfort, infection, illness and pain of animal subjects.</li> <li>• Use a procedure subjecting animals to pain, stress or privation only when an alternative procedure is unavailable and the goal is justified by its prospective scientific, educational or applied value.</li> <li>• Perform surgical procedures under appropriate anesthesia and follow techniques to avoid infection and minimize pain during and after surgery.</li> <li>• Proceed rapidly when it is appropriate that an animal's life be terminated, with an effort to minimize pain and in accordance with accepted procedures.</li> </ul> <p>Moreover, psychologists trained in appropriate research methods and experienced in the care of laboratory animals, must supervise all procedures involving these animals and are "responsible for ensuring appropriate consideration of their comfort, health and humane treatment," says the code.</p> <p>American Psychological Association (2003) Ethics in research with animals. <i>Monitor on Psychology</i>. Vol 34, No. 1, page 57</p> |
| <p>Animal Care and Use Committee Lab Activity</p> | <p>After a discussion in which students develop an understanding of non-human, animal ethics in psychology research, divide students into four groups for the following lab activity, Animal Care and Use Committee (<b>see Appendix A</b>). Lab activity is a modified version from Herzog, H.A. (1990). Discussing animal rights and animal research in the classroom. <i>Teaching of psychology</i>, 17, 90-94</p> <p>Directions:</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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|                         | <p><i>Your group is the Animal Care Committee for a 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 experimental design. You should make your decision based on the information given in the proposal. Your committee must come to a unanimous decision.</i></p> <p>Discussion:</p> <p>Allow students time to read their assigned case file and determine whether they will approve or reject the research proposal. Based upon your observation of the groups and their discussion progression, have a spokesperson from each group report out about the group's decision. It may be worth asking during the discussion that will inevitably follow, if students would change their mind about their decision if a different animal were used. This can lead to describing the human tendency to feel more strongly towards animals we think are more "human like" such as pets (dogs/cats/apes) versus using mice/rats/snails ect. Thus wanting to use dogs and cats less frequently in research than other types of animals.</p> |
| <p>Wrap-up activity</p> | <p>As students are set to leave pose the following questions:</p> <ul style="list-style-type: none"> <li>● <i>Did your group decide to accept or reject the proposal?</i></li> <li>● <i>Do you agree with the group's decision?</i></li> <li>● <i>Did you go along with the group or argue against the group?</i></li> <li>● <i>What was your main reason for either supporting the case proposal or rejecting it</i></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

Day 2      Class Period Approximately 40-50 minutes in length

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| <p>Introductory Information Presentation</p>                                                                                                                                                                                 | <p>Share with the students the general guidelines used for ethical human research developed by the American Psychological Association. Revisit the concept of an Internal Review Board (IRB) and its role in the process of ethical research connecting back to the previous days Animal Care Committee lab activity.</p> <p>Make the following points:</p> <ul style="list-style-type: none"> <li>• In psychological research, human subjects should first be made aware of the research and give their permission to participate (informed consent).</li> <li>• Human subjects must be kept free of harm and discomfort</li> <li>• Human subject's personal information must be kept confidential</li> <li>• Human subjects should be given a full debriefing of the research that they participated in.</li> </ul> <p>Myers, D. G. (2014) <i>Myers' Psychology for AP Second Edition</i> Worth Publishers</p> <p>As a group, discuss how these guidelines have not always been in place and that they exist because there were many instances of research in psychology that did not comply with today's guidelines.</p> |
| <p>The Top Ten Most Unethical Experiments in Psychology Lab Activity</p> <p>*Note about the origins of the activity: <i>People love top ten lists and years ago I stumbled upon a top ten most unethical experiments</i></p> | <p>Share with students summaries (see <b>Appendix B</b>) regarding ten of the most ethically questionable experiments ever conducted in the name of psychology. One strategy to use is a gallery walk, where each summary is posted somewhere around your classroom for students to move around and read about at their own pace. If this strategy is not logistically feasible, consider giving students copies of each summary either digitally or in print.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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| <p><i>list online. While all of the experiments have problems, I think students should have the opportunity to make their own ranking. Doing this assignment towards the beginning of the school year also allows for curiosity (like hey this is wild stuff!) and connection for students. Several times when these studies come back up in our later lessons students recognize them and create better connections to course content.</i></p> | <p><a href="https://listverse.com/2008/09/07/top-10-unethical-psychological-experiments/">https://listverse.com/2008/09/07/top-10-unethical-psychological-experiments/</a><br/>(These summaries are available at the link above and could be modified to include more or less information as you see fit for your lesson.)</p> <p>As students are reading the summaries of psychological experiments, have them develop their own ranking for each experiment with #1 being the MOST Unethical and #10 being the LEAST unethical. This can be completed digitally using Google Forms or using a print version (see <b>Appendix C</b>). Google Forms allows for easier mathematical computation of student responses which would otherwise need to be tallied by hand.</p> <p>Once student responses have been computed, use this information to lead a discussion about why students ranked the experiments as they did.</p> |
| <p>Wrap-up Activity</p>                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>Use the following questions as assessment:</p> <ul style="list-style-type: none"> <li>• <i>What are the four criteria the APA imposes on the use of humans in psychology testing?</i></li> <li>• <i>For each criteria, give an example from at least one of our sample experiments which supports the use of that ethical guideline.</i></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

## Appendix A

# Animal Care and Use Committee

### ***Directions:***

- Your group is the Animal Care Committee for a 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 experimental design.
- You should make your decision based on the information given in the proposal.
- Your committee must come to a unanimous decision.

### Case #1

Professor King is a psychobiologist working on the frontiers of a new and exciting research area of neuroscience called 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.

## 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 movements are innately organized in the brain, then the animals should eventually show grooming-like movements with the stumps.

In his proposal, Dr. Fine notes that the 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 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 schools 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 they are already in poor health or that they are unfit for possible adoption due to aggressive and dangerous behavior.
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 animals.
3. Research with dogs from the 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 these shelter animals may be lost or stolen pets. 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, these 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 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 the students taking the course in physiological psychology must have the opportunity to engage in small animal surgery and to see firsthand the effects of brain lesions in order to fully enhance their educational experience.

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

## Appendix B

# Psychological Experiment Summaries

## Landis' Facial Expressions Experiment 1924



In 1924, Carney Landis, a psychology graduate at the University of Minnesota developed an experiment to determine whether different emotions create facial expressions specific to that emotion. The aim of this experiment was to see if all people have a common expression when feeling disgust, shock, joy, and so on.

Most of the participants in the experiment were students. They were taken to a lab and their faces were painted with black lines, in order to study the movements of their facial muscles. They were then exposed to a variety of stimuli designed to create a strong reaction. As each person reacted, they were photographed by Landis. The subjects were made to smell ammonia, to look at pornography, and to put their hands into a bucket of frogs. But the controversy around this study was the final part of the test.

Participants were shown a live rat and given instructions to behead it. While all the participants were repelled by the idea, fully one third did it. The situation was made worse by the fact that most of the students had no idea how to perform this operation in a humane manner and the animals were forced to experience great suffering. For the one third who refused to perform the decapitation, Landis would pick up the knife and cut the animals head off for them.

The consequences of the study were actually more important for their evidence that people are willing to do almost anything when asked in a situation like this. The study did not prove that humans have a common set of unique facial expressions.

Maggie (2014) Top 10 unethical psychological experiments.

<https://listverse.com/2008/09/07/top-10-unethical-psychological-experiments/>

## Little Albert 1920



John Watson, father of behaviorism, was a psychologist who was apt to using orphans in his experiments. Watson wanted to test the idea of whether fear was innate or a conditioned response. Little Albert, the nickname given to the nine month old infant that Watson chose from a hospital, was exposed to a white rabbit, a white rat, a monkey, masks with and without hair, cotton wool, burning newspaper, and miscellanea of other things for two months without any sort of conditioning. Then experiment began by placing Albert on a mattress in the middle of a room. A white laboratory rat was placed near Albert and he was allowed to play with it. At this point, the child showed no fear of the rat.

Then Watson would make a loud sound behind Albert's back by striking a suspended steel bar with a hammer when the baby touched the rat. In these occasions, Little Albert cried and showed fear as he heard the noise. After this was done several times, Albert became very distressed when the rat was displayed. Albert had associated the white rat with the loud noise and was producing the fearful or emotional response of crying.

Little Albert started to generalize his fear response to anything fluffy or white (or both). The most unfortunate part of this experiment is that Little Albert was not desensitized to his fear. He left the hospital before Watson could do so.

Maggie (2014) Top 10 unethical psychological experiments.

<https://listverse.com/2008/09/07/top-10-unethical-psychological-experiments>

## Learned Helplessness 1965



In 1965, psychologists Mark Seligman and Steve Maier conducted an experiment in which three groups of dogs were placed in harnesses. Dogs from group one were released after a certain amount of time, with no harm done. Dogs from group two were paired up and leashed together, and one from each pair was given electrical shocks that could be ended by pressing a lever. Dogs from group three were also paired up and leashed together, one receiving shocks, but the shocks didn't end when the lever was pressed. Shocks came randomly and seemed inevitable, which caused "learned helplessness," the dogs assuming that nothing could be done about the shocks. The dogs in group three ended up displaying symptoms of clinical depression.

Later, group three dogs were placed in a box with by themselves. They were again shocked, but they could easily end the shocks by jumping out of the box. These dogs simply "gave up," again displaying learned helplessness. The image above is a healthy pet dog in a science lab, not an animal used in experimentation.

Maggie (2014) Top 10 unethical psychological experiments.

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## Milgram Study 1974



The notorious Milgram Study is one of the most well known of psychology experiments. Stanley Milgram, a social psychologist at Yale University, wanted to test obedience to authority. He set up an experiment with “teachers” who were the actual participants, and a “learner,” who was an actor. Both the teacher and the learner were told that the study was about memory and learning.

Both the learner and the teacher received slips that they were told were given to them randomly, when in fact, both had been given slips that read “teacher.” The actor claimed to receive a “learner” slip, so the teacher was deceived. Both were separated into separate rooms and could only hear each other. The teacher read a pair of words, followed by four possible answers to the question. If the learner was incorrect with his answer, the teacher was to administer a shock with voltage that increased with every wrong answer. If correct, there would be no shock, and the teacher would advance to the next question.

In reality, no one was being shocked. A tape recorder with pre-recorded screams was hooked up to play each time the teacher administered a shock. When the shocks got to a higher voltage, the actor/learner would bang on the wall and ask the teacher to stop. Eventually all screams and banging would stop and silence would ensue. This was the point when many of the teachers exhibited extreme distress and would ask to stop the experiment. Some questioned the experiment, but many were encouraged to go on and told they would not be responsible for any results.

If at any time the subject indicated his desire to halt the experiment, he was told by the experimenter, Please continue. The experiment requires that you continue. It is absolutely essential that you continue. You have no other choice, you must go on. If after all four orders the teacher still wished to stop the experiment, it was ended. Only 14 out of 40 teachers halted the experiment before administering a 450 volt shock, though every participant questioned the experiment, and no teacher firmly refused to stop the shocks before 300 volts.

In 1981, Tom Peters and Robert H. Waterman Jr. wrote that the Milgram Experiment and the later Stanford prison experiment were frightening in their implications about the danger lurking in human nature’s dark side.

Maggie (2014) Top 10 unethical psychological experiments.

<https://listverse.com/2008/09/07/top-10-unethical-psychological-experiments/>

## The Well of Despair 1960



Dr. Harry Harlow was an unsympathetic person, using terms like the “rape rack” and “iron maiden” in his experiments. He is most well-known for the experiments he conducted on rhesus monkeys concerning social isolation. Dr. Harlow took infant rhesus monkeys who had already bonded with their mothers and placed them in a stainless steel vertical chamber device alone with no contact in order to sever those bonds. They were kept in the chambers for up to one year. Many of these monkeys came out of the chamber psychotic, and many did not recover. Dr. Harlow concluded that even a happy, normal childhood was no defense against depression, while science writer Deborah Blum called these, “common sense results.”

Gene Sackett of the University of Washington in Seattle, one of Harlow’s doctoral students, stated he believes the animal liberation movement in the U.S. was born as a result of Harlow’s experiments. William Mason, one of Harlow’s students, said that Harlow “kept this going to the point where it was clear to many people that the work was really violating ordinary sensibilities, that anybody with respect for life or people would find this offensive. It’s as if he sat down and said, ‘I’m only going to be around another ten years. What I’d like to do, then, is leave a great big mess behind.’ If that was his aim, he did a perfect job.”

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## David Reimer 1965 – 2004



In 1965, an identical twin set of baby boys were born in Canada named Bruce and David Reimer. At eight months old, David was brought in for a standard procedure: circumcision.

Unfortunately, during the process his penis was burned off. This was due to the physicians using an electrocautery needle instead of a standard scalpel. When the parents visited psychologist John Money, he suggested a simple solution to a very complicated problem: a sex change. His parents were distraught about the situation, but they eventually agreed to the procedure. They didn't know that the doctor's true intentions were to prove that nurture, not nature, determined gender identity. For his own selfish gain, he decided to use David as his own private case study.

David, now Brenda, had a vagina constructed and was given hormonal supplements. Dr. Money called the experiment a success, neglecting to report the negative effects of Brenda's surgery. She acted very much like a stereotypical boy and had conflicting and confusing feelings about an array of topics. Worst of all, her parents did not inform her of the horrific accident as an infant. This caused a devastating tremor through the family. Brenda's mother was suicidal, her father was an alcoholic, and her brother was severely depressed.

Finally, Brenda's parents gave her the news of her true gender when she was fourteen years old. Brenda decided to become David again, stopped taking estrogen, and had a penis reconstructed. Dr. Money reported no further results beyond insisting that the experiment had been a success, leaving out many details of David's obvious struggle with gender identity. At the age of 38, David committed suicide.

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## The Monster Study 1939



The Monster Study was a stuttering experiment on 22 orphan children in Davenport, Iowa, in 1939 conducted by Wendell Johnson at the University of Iowa. Johnson chose one of his graduate students, Mary Tudor, to conduct the experiment and he supervised her research. After placing the children in control and experimental groups, Tudor gave positive speech therapy to half of the children, praising the fluency of their speech, and negative speech therapy to the other half, belittling the children for every speech imperfection and telling them they were stutterers. Many of the normal speaking orphan children who received negative therapy in the experiment suffered negative psychological effects and some retained speech problems during the course of their life. Dubbed “The Monster Study” by some of Johnson’s peers who were horrified that he would experiment on orphan children to prove a theory, the experiment was kept hidden for fear Johnson’s reputation would be tarnished in the wake of human experiments conducted by the Nazis during World War II. The University of Iowa publicly apologized for the Monster Study in 2001.

## The Aversion Project 1970s and 1980s



South Africa's apartheid army forced white lesbian and gay soldiers to undergo 'sex-change' operations in the 1970's and the 1980's, and submitted many to chemical castration, electric shock, and other unethical medical experiments. Although the exact number is not known, former apartheid army surgeons estimate that as many as 900 forced 'sexual reassignment' operations may have been performed between 1971 and 1989 at military hospitals, as part of a top-secret program to root out homosexuality from the service.

Army psychiatrists aided by chaplains aggressively ferreted out suspected homosexuals from the armed forces, sending them discreetly to military psychiatric units, chiefly ward 22 of 1 Military Hospital at Voortrekkerhoogte, near Pretoria. Those who could not be 'cured' with drugs, aversion shock therapy, hormone treatment, and other radical 'psychiatric' means were chemically castrated or given sex-change operations.

Although several cases of lesbian soldiers abused have been documented so far—including one botched sex-change operation—most of the victims appear to have been young, 16 to 24-year-old white males drafted into the apartheid army.

Dr. Aubrey Levin (the head of the study) is now Clinical Professor in the Department of Psychiatry (Forensic Division) at the University of Calgary's Medical School. He is also in private practice, as a member in good standing of the College of Physicians and Surgeons of Alberta.

Maggie (2014) Top 10 unethical psychological experiments.

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## Stanford Prison Experiment

1971



This study was not necessarily unethical, but the results were disastrous, and its sheer infamy puts it on this list. Famed psychologist Philip Zimbardo led this experiment to examine that behavior of individuals when placed into roles of either prisoner or guard and the norms these individuals were expected to display.

Prisoners were put into a situation purposely meant to cause disorientation, degradation, and depersonalization. Guards were not given any specific directions or training on how to carry out their roles. Though at first, the students were unsure of how to carry out their roles, eventually they had no problem. The second day of the experiment invited a rebellion by the prisoners, which brought a severe response from the guards. Things only went downhill from there.

Guards implemented a privilege system meant to break solidarity between prisoners and create distrust between them. The guards became paranoid about the prisoners, believing they were out to get them. This caused the privilege system to be controlled in every aspect, even in the prisoners' bodily functions. Prisoners began to experience emotional disturbances, depression, and learned helplessness. During this time, prisoners were visited by a prison chaplain. They identified themselves as numbers rather than their names, and when asked how they planned to leave the prison, prisoners were confused. They had completely assimilated into their roles.

Dr. Zimbardo ended the experiment after five days, when he realized just how real the prison had become to the subjects. Though the experiment lasted only a short time, the results are very telling. How quickly someone can abuse their control when put into the right circumstances. The scandal at Abu Ghraib that shocked the U.S. in 2004 is a prime example of Zimbardo's experiment findings.

Maggie (2014) Top 10 unethical psychological experiments.

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## Monkey Drug Trials 1969



While animal experimentation can be incredibly helpful in understanding man, and developing life saving drugs, there have been experiments which go well beyond the realms of ethics. The monkey drug trials of 1969 were one such case. In this experiment, a large group of monkeys and rats were trained to inject themselves with an assortment of drugs, including morphine, alcohol, codeine, cocaine, and amphetamines. Once the animals were capable of self-injecting, they were left to their own devices with a large supply of each drug.

The animals were so disturbed (as one would expect) that some tried so hard to escape that they broke their arms in the process. The monkeys taking cocaine suffered convulsions and in some cases tore off their own fingers (possible as a consequence of hallucinations), one monkey taking amphetamines tore all of the fur from his arm and abdomen, and in the case of cocaine and morphine combined, death would occur within 2 weeks.

The point of the experiment was simply to understand the effects of addiction and drug use; a point which, I think, most rational and ethical people would know did not require such horrendous treatment of animals.



