**To Test or Not to Test: Ethics in Animal Testing**

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The University of Arizona Global Campus

GEN 499: General Education Capstone

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November 16, 2050*

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The subject of animal testing raises questions of necessity. Animal testing is something that has been done for many years for several different reasons. It has been used since the dawn of medicine by physicians and scientists. From biomedical research to testing cosmetics, people claim that animal testing is necessary to benefit people in satiating their need for certain products as well as saving lives. There is an idea that animals are the best way to find treatments and cures for people, but the treatment of animals is of concern for some members of society. Society is feeling more and more that animals have as much right to live freely in this world as humans do, and our obligation to see to this makes animal testing a societal problem. Due to these concerns and others, there have been several laws and acts formed to protect animals and minimize their suffering. And with the advances of technology and other discoveries, the question of the necessity of animal testing is becoming an issue for animal activists and lovers everywhere. The future of medicine and biomedical research should not rely on animals for testing. Instead, we should use alternative testing methods and work toward making different lifestyle choices. These solutions create the ethical outcome of ending the suffering of these animals, which will have a positive influence on society and culture.

**Problem**

**Background**

Animal testing has been deemed necessary for many reasons. Animal testing has been done to determine the safety of household cleaning products, cosmetics including

skin care, shampoo and makeup, as well as biomedical research that provides medicine and treatments for humans and pets alike. The BioIndustry Association (2002) argues that "Animal research has made a vital contribution to the development of medicines that save many lives every day" (as cited in Taylor, 2005, p. 7). In 1938 Congress passed the Food, Drug and Cosmetic Act because of public demands after tragic incidents involving an untested product ("Why Do Companies Test Cosmetics," 2013). There have been many arguments and evidence that shows the "good" that animal research has done in regards to biomedical research. Studies involving dogs, rats, rabbits, cats, chickens, pigs and sheep have all helped to contribute to the understanding of heart disease. Drugs and vaccines that can be a possible solution to the devastating HIV/AIDS virus are present due to the tests that have been performed on chickens, cats and monkeys with a similar virus. Animals have been used as models for research for almost every disease that is known to man (Lee, 2015). If animal testing has contributed to creating drugs for diseases as serious as cancer and HIV/AIDS, naturally animals are being used to find cures and treatments for many other diseases and sicknesses.

*In this paragraph, the student has given the reader some background information on the topic.*

**Reason #1** ➤ Therefore, how could animal testing be wrong? Indeed, research has shown that animal testing is helpful to progress in the field of medicine and biomedical research as well as developing treatments that are yielding promising results. However, it comes with a high cost. It comes with the cost of animals being subjected to tests that put them through distress and can harm or kill them. Humans and animals are both sentient beings; sentient meaning a person or being that has feelings or that can feel (Merriam-Webster, n.d.). Research shows that 37% percent of animals used for science suffer moderate to severe stress and discomfort or severe pain (National Statistics, 2014). When it comes to

*This paragraph discusses the first reason that animal testing is a societal problem and provides evidence to support this.*

using animals for science and experimentation, people tend to focus on the fact that non-human animals are inferior to humans. Regardless of whether or not this is true it does not take away from the fact that animals are sentient and that they experience pain and seek pleasure. Animals and people react to pain in similar ways by screaming or trying to avoid the source of the pain. "The American Veterinary Association defines animal pain as an unpleasant sensory and emotional experience perceived as arising from a specific region of the body and associated with actual or potential tissue damage" (Dunnuck, n.d., para. 6). Some of the animals used in biomedical research are not given any pain relief. They are subjected to painful conditions and physical procedures that leave them in intense cold or heat, or have limbs crushed and spinal cords damaged (Callanan, 2009). Pain and suffering are unique to every individual. Every person's and even animal's pain threshold is different. However, evidence clearly shows the pain that is experienced by these animals is experienced the same way that it is in humans.

**Reason #2** ➤ Physical pain is unfortunately not the only problem that these animals undergo. Psychological distress, fear, and sadness have been demonstrated amongst a wide variety of species (Ferdowsiann & Beck, 2011). The use of chimpanzees and other primates for animal testing has generated a lot of controversy because of their similarities to humans. Ironically enough, it is also the reason that so many researchers have wanted to use them as models. Indeed chimpanzees are highly emotional and intelligent creatures that are evolutionarily and genetically similar to human beings. This is the argument of researchers that makes them great candidates for biomedical research. Philosophy Department Chair Lori Gruen states, "They're very similar to us in terms of their emotional lives and

This next paragraph discusses a second reason that animal testing is a societal problem and again provides evidence to support this.

their intellectual and physical and social experiences, and using them in painful, invasive ways is to harm them; they don't consent to it" (Lee, 2015, p. 3).

Besides the obvious reasons of the pain and suffering that these animals feel, there is the question of the necessity for animal testing in regards to medical advances. Despite the increasing number of technological alternatives to animal testing, over 100 million animals are legally used for animal experiments each year for medical research alone. In 2007, England, Wales and Scotland used 3.1 million animals for genetic and biomedical experimentation (Callanan, 2009). In October of 2006 attendees of the opening day of the Joint World Congress for Stroke in Cape Town, South Africa were devastated at the failure of a drug that was intended for ischemic stroke. The drug, NXY-059, had reached phase III of clinical trials and failed to do what the animals used for the research had promised. The drug was supposed to "stop the cascade of the necrosis in the event of a stroke, and protect the remaining viable brain cells" (Gawrylewski, 2007, para. 3). Director of Michigan Alzheimer's Diseases Research Center in the Department of Neurology at the University of Michigan Sid Gilman says that one of the major faults in the trials for NXY-059 was its use of animal models (Gawrylewski, 2007). Besides the millions of dollars wasted, there was a waste of life and unnecessary use of animals for painful research. This is one of many examples of disappointing let-downs of drugs that were tested on animals that did not work.

This paragraph discusses a third reason that animal testing is a problem.

Evidence is used to support this.

This next section of your paper is where you will discuss your proposed solution(s) to the problem.

**Solution**

Considering the horrific psychological and physical pain that animals have to go through in the midst of testing for biomedical research, alternative testing methods are in

order. According to Callanan (2009), there has been much successful research and many tests done to help find treatments for diseases and sicknesses that have plagued humans and did not involve animal testing. Many scientists have started and are continuing to develop alternate ways to test and find treatments for people because they do not want to harm animals. Some of these new developments include cell cultures, analytical technology, micro-organisms, computer models, population research, and volunteer studies. Cell cultures have contributed to the understanding of cancer, Parkinson's, and HIV/AIDS. Analytical technology uses equipment that selects anti-cancer and anti-malaria drugs because of the reaction it produces with DNA. Computer models are allowing for virtual experiments to be conducted (Callanan, 2009). Tissue engineering is also an alternative to animal testing. It uses a 3-D skin equivalent that is physiologically comparable to skin. It investigates wound healing melanoma research, infection biology, analysis of infection, invasion of different pathological microorganisms and immunological, histological, and molecular-biological analysis. This study has been inspired by economical and ethical incentive (Mertsching et al., 2008). Animals are subjects for painful and uncomfortable vaccine success for human diseases. However, some researchers have begun to rely only on human data, cells and tissue. As far as vaccine development goes, researchers have set up a surrogate in-vitro human immune system to help predict an individual's immune response to certain drugs and vaccines. This test has been compared with data from animal experimentation and has proven to produce more accurate pre-clinical data (Ferdowsian & Beck, 2011). This evidence shows that alternative ways to test treatments are in fact possible and even better, making testing on animals more of a choice than a necessity.

In this paragraph, the student discusses her first solution.

You can see that she used several pieces of evidence to support her argument that this solution is viable.

**Solution #2** Along with alternatives to animal testing, there are alternative lifestyle choices that can prevent people from having to use the drugs that are being tested on animals. Naturally there are some things that are out of people's control including genetics and accidents that cause serious bodily harm. However, there is the choice to exercise, eat healthy, and engage in healthy behavior and activities that will prevent a lot of diseases that call for people to use some of the drugs that tested on animals. Complementary and alternative as well as integrative healthcare include preventative healthcare, and natural remedies to help treat the physical body as well as treating the mental state. Having better habits can help to eliminate some of the issues that these medicines that torture animals can be good for. For instance, headaches and migraines are a common problem unfortunately. According to the International Headache Society, 46% of the adult population suffers from regular headaches 11% suffers from migraines while about 46% suffers from tension headaches (as cited in Adams & Lui, 2013). Also noted is that the most common way that people treat headaches and migraines is through conventional medicines that include acetaminophen, acetylsalicylic, and non-steroidal anti-inflammatory drugs that may cause a plethora of issues including dry mouth, constipation, seizures, and weight gain. These are also some of the things that they induce animals with in order to see if the drugs they are giving out work. There are several different alternative methods to treating headaches in migraine including drinking more water, having a healthier diet, acupuncture, massage therapy, yoga, meditation, and breathing exercises. These are all cruelty free and have been shown to help people (Adams & Lui, 2013). Again, these alternative and preventative treatments offer a solution to the problem of animal testing.

In this paragraph, the student discusses her second proposed solution.

You can see that she used several pieces of evidence to support her argument that this solution is viable.

## Evaluation of the Evidence

The evidence used here is all valid and reliable and without bias. The majority of sources used here are scholarly, peer-reviewed articles which makes them both valid and reliable. There are also a few sources used here that would be considered popular sources. However, the information used from these sources is valid and reliable because these sources are secondary sources where the evidence used from them was provided by reliable organizations. For example, one source (Merriam-Webster, n.d.) was used only to provide a definition to the reader for background information. This definition is valid and reliable. Another source ("Why Do Companies Test Cosmetics," 2013) was used to provide background information on the 1938 Food, Drug and Cosmetic Act, which is also valid and reliable information. A third source was also used to provide a definition for background information (Dunnuck, n.d.). This definition is from the American Veterinary Association and is valid and reliable. While some of the sources can be seen as having

biases, I do not feel that any of the evidence presented here from these sources is biased in any way. For example, some of the authors may very well feel strongly that animals should not be tested, but the evidence used was not based solely on opinion. Instead, it was based on facts, studies, and experts in the field. For this reason, I do not feel that the

evidence used here contains biases. The real strength of each of my sources is that they did include valid and reliable evidence and they were not simply appealing to the emotions of the reader. The main weakness of the sources is that some failed to provide alternative viewpoints to their argument.
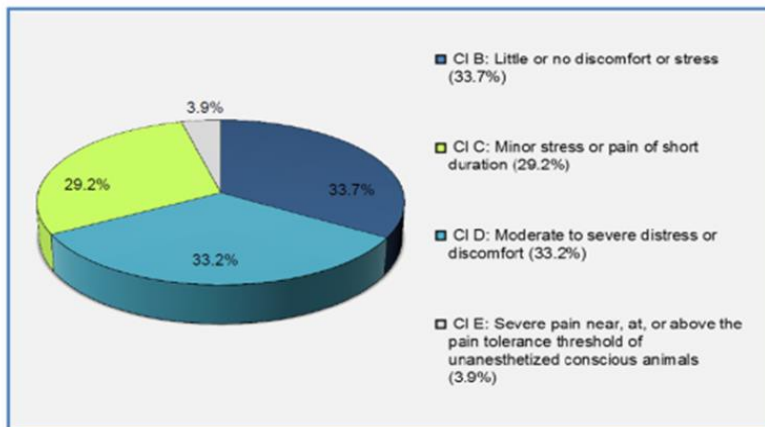
Several of the sources provide statistical data that needed to be interpreted. The statistic from National Statistics (2014) about the percentage of animals for science that suffer can be seen in the following graph:

**Figure 2: Proportion of animals used in science at CCAC-certified institutions for each category of invasiveness (CI) in 2011**



3.9%

29.2%

33.7%

33.2%

CI B: Little or no discomfort or stress (33.7%)

CI C: Minor stress or pain of short duration (29.2%)

CI D: Moderate to severe distress or discomfort (33.2%)

CI E: Severe pain near, at, or above the pain tolerance threshold of unanesthetized conscious animals (3.9%)

This statistical evidence shows that while there are certainly animals used for research that are not suffering, more than 37% are suffering, which is more than a third of all of these animals. These statistics provide evidence that show a concrete percentage of the suffering that is occurring.

The future of biomedical research can continue to make advances without causing harm and suffering to sentient beings. However, more research will need to be done to find additional alternatives and to make the most out of the current alternatives. There is also limited research on preventative measures of healthcare related to the issue of animal testing. It would be useful to see more correlation studies done on preventative medicine and a drop in the need for biomedical testing.

In this paragraph, the student interprets statistical data from a source and also provides a graph to show a visual representation of this data. Be sure to cite any visual data that you include.

Here, the student states some of the limitations of current research on the topic and/or areas where more research is needed.

**Ethical Outcomes of Solution**

The issue about the physical and emotional pain that animals feel during animal testing has been considered by supporters a "necessary evil." This offers insight to a utilitarian view of why we use animals for testing purposes. Utilitarianism is the idea that when there is a choice between two acts, the one chosen should yield the greatest amount of happiness for the greatest number of people (Mosser, 2013). There is an obvious correlation with this way of thinking when it comes to animal research. Throughout different studies involving the opinions and thoughts on animal testing, people use words like "regrettably" or phrases like "necessary evil." The BioIndustry Association (2002) states, "If we are to develop effective new treatments against mass killers such as cancer and heart disease, regrettably [animal testing] will continue to be necessary for the foreseeable future" (as cited in Taylor, 2005, p. 7). The utilitarian view claims that despite whether people's acts are morally right or wrong, the results, consequences, or effects of the acts shown will determine the morality of what is done (Regan, 1997). The theory of utilitarianism shows that ending animal testing would lead to a negative outcome for society because it could cause more people to suffer.

Ending animal suffering is clearly a positive ethical outcome, and the solutions of alternative testing and alternative lifestyles can create this outcome. One of the issues that animal activists have with this practice is that animals are sentient beings who feel and are aware of what is happening to them. They feel pain and fear in knowing that they are being harmed. It has been shown in research and is no secret that animals are sentient and feel pain and react to pain virtually the same way that humans do. It presents an ethical dilemma because animal testing inflicts pain, suffering, and death to non-consenting

sentient beings (Masterton, 2014). Their lives obviously mean something to them due to the noticeable depression they are in when under the conditions of tortuous research. Regardless of the good that animal testing has done, it does not take away from the fact that pain and suffering is involved to the beings that are a part of it. Using alternative testing practices and adopting alternative lifestyles of preventative care can help eliminate the need for harming animals in the name of medicine.

**Rationale** ➤ The positive ethical outcome of ending the suffering of animals in the name of medicine outweighs the argument that testing animals provides the greatest good for the greatest number. The reason for this is that the argument for the negative ethical outcome can actually be avoided by using alternative testing measures. We can still continue to test medicines and treatments without the use of animals. Scientist and researchers alike are developing and testing new alternatives without having to set back all of the hard work that has already been done and these alternatives have been successful. Finding ways to treat and heal alternatively removes the horror of animal testing. Therefore, this "necessary" evil is not necessary after all. And the greatest good for the greatest number can still be reached without making animals suffer. Also, the solution of changing our lifestyles to prevent needing so much medicine will lead to the greatest good for the greatest number as well.

> Here, the student has shown a rationale for why her proposed solution will produce a positive ethical outcome.

> In this section, summarize the main points made in your paper.

## Conclusion

While animal testing is a social concern for our society and culture, there are ways that we can and should work to eliminate this. One major way to do this is by researching and investing in alternative testing measures. There are alternatives that currently exist and are being used, but this needs to continue at a greater rate. The cost of

delaying this is the unnecessary suffering of innocent animals. We should also continue with the current trend of investing in preventative healthcare such as living a healthy life-style to help eliminate illnesses and the need for medicines. We now know more than ever about the benefits and risks of certain foods, products, and behaviors and we are in a greater position to use this for the good of all living beings. This is an important issue to tackle because the way that we treat those who are not in a position of power, such as animals, reflects on our identity and who we are as a culture and a society. Our character is in question if we continue to allow unnecessary suffering to animals to happen.

The student ends her paper by stating why this is an important conversation.

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