## ALTERNATIVES TO ABUSE

## Reducing Animal Experimentation And Consumption



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Freshman biology is often a student's first introduction to the use of animals for the purpose of science education. However, we never questioned the ethics behind animal experimentation for science lessons that students probably forgot within the next month.

Similarly, we ignore the life before meat by referring to dead cows and pigs as beef and pork. Having a lower-than-human intelligence does not change the fact that non-human animals are incredibly emotional and perceptive beings, who are highly responsive to pain and their surroundings. Understanding animal sentience can encourage awareness and respect toward non-human species, as well as garner support for the reduction of animal use in experimentation and food consumption.

The selective discrimination of animals is called speciesism, which is the belief that some animals are superior to others. This is why some cultures eat dog corpses and others keep them as pets. As a result of speciesism, we treat animals and nature as lifeless tools, designed to fit what humans want. Laboratories can buy baby pigs without a pancreas or mice with Alzheimer's, according to Susan Kopp and Charles Camosy's "Animals 2.0: A veterinarian and a theologian survey a brave new world of biotechnology." On factory farms, we inject animals with hormones that make parts of their bodies larger and more marketable.

The face of animal use in food has vastly diverted from being the natural process it once was. In the past, according to an article from The Guardian, one animal body could feed, dress and supply a whole family. Meat was a respected luxury. Today, a look into slaughterhouses reveals the horrific torture endured by highly sentient animals under a mechanical system that is far from natural.

According to an undercover slaughterhouse investigator and writer for The Doe, employees turn into robots who have perfected methods of shackling 24 chickens per minute. Alongside the obvious physical pain felt while they are being murdered, animals used for food suffer emotional torment. For example, according to Farm Sanctuary's Gene Baur, animal cries can be heard while animals see their companions dying or a mother sees her child for just a few minutes before he is taken by veal producers who bid on calves while their umbilical cords are still attached.

The animal agriculture industry is closely tied to our health care crisis. While innocent blood is being shed, the environment and human health are collapsing. Meat consumption is linked to declining human health, Baur finds, through the hormones in animal products. Additionally, animal exploitation threatens human health, through the disease and byproducts that enter our water.

Baur found that toxic chemicals and waste from the food industry are polluting bodies of water and killing aquatic life. Cities are being drained of rivers and aquifers, as the demand for more land to raise animals continues to grow. According to Baur, cattle slaughterhouses use between 250,000 and 550,000 gallons of water each day. Poultry plants use even more, at about 1.5 million gallons per day, or about six gallons per bird.

Completely banning consumption of animals is unreasonable, as meat is currently easily accessible, holds cultural value to many and has become a commodity that humans feel entitled to eat everyday. The solution to reducing meat consumption lies in making vegetarian foods more accessible, regulating meat production and educating the public about cooking and healthy eating. Senator Alexandria Ocasio-Cortez (D-NY) recognized this when, in regard to cattle production's negative effect on carbon emission, she said that "maybe we shouldn't be eating a hamburger for breakfast, lunch, and dinner."

This is easier said than done. In today's unnatural world, vegan and vegetarian foods are highly inaccessible to lower-income individuals. To combat inaccessibility of expensive foods, a study in "The Public Health Effects of Food Deserts" found that lowering the prices of healthier foods and increasing the prices of unhealthy foods increased the purchases of healthier food, while profits remained the same.

The same concept can be applied by lowering the prices of vegan and vegetarian foods while increasing the prices of some meats. Reducing the demand of meat would have numerous benefits, as people would have greater access to healthier foods while being able to indulge in meats occasionally.

Encouraging supermarkets to carry more environmentally friendly and vegetarian foods is essential to ending exploitative animal consumption. But there are several barriers keeping this from happening. Most predominantly, according to Mashable, supermarkets are hesitant to open in lower-income areas because of stigmas regarding food stamps, security and crime.

If these capitalist barriers could be removed, farmer's markets and community gardens can be brought into low-income neighborhoods. Authors of "The Public Health Effects of Food Deserts" found that the sustainability of local efforts in lower-income communities depended on government support that incentivized the purchase of fresh produce from local farmers and funded the implementation of local markets; education about growing and cooking food increases job opportunities and gives community members greater access to better foods.

But exploitative animal consumption does not just come from what we eat—modern science is built on the abuse of animals through clinical trials and medicinal testing. Animals used in research live painful lives deprived of any dignity or liberty. The process of studying primate brains is invasive and leaves permanent damages, including death, as chunks of skull bone, brain matter, facial structures and eyeballs are removed while the primate is alive according to Jinjing Fan from Neural Regeneration Research.

According to Fordham University's social ethics professor Charles Camosy, primates demonstrate selfawareness and anticipation of the future, revealing that they are completely aware of the life and potential they have lost while abused in a research facility. Other highly intelligent animals, such as unadopted dogs and cats, pigs, mice, hamsters, guinea pigs and rabbits are also subject to this mistreatment.

Even if pain was mitigated through anesthesia, if the animal survives, they are left permanently mutilated, incapable of their natural athleticism and with reminders of the emotional pain suffered. When they are finally disposed of, they have known nothing outside of pain.

Animal testing comes with drawbacks outside of just animal abuse. For example, animal experimentation is very expensive due to requirements for trained manpower, time consuming protocols, breeding, housing and more, according to Sonali K. Doke and Shashikant C. Dhawale in "Alternatives to animal testing: A review." Limiting the use of animals in research through alternative methods would be much more cost effective.

Additionally, Doke and Dhawale argue that animals as test subjects are often ineffective because there is no perfect way to keep them in a controlled environment. Animals used in labs are subject to high levels of stress and discomfort, resulting in hormonal imbalances and thus, resulting in skewed research. Aysha Akhtar's "The Flaws and Human Harms of Animal Experimentation" from the Cambridge Quarterly of Healthcare Ethics found that there is also a difference in disease reaction, physiology and genetics between species of animals that can lead to misleading results which most often fail in human trials. In fact, most of the time animal testing leads to inconclusive results as 96% of tests on animals are ineffective. Akhtar also found that the excessive amount of waste produced through animal testing can compromise public health, the environment and biodiversity.

Several alternatives to animal experimentation can be implemented to reduce the body count and cultivate more ethical and cost-effective research. First, the in-vitro method of testing involves the isolation of tissue and cell cultures from animals and humans. In-vitro techniques are easy to follow, less time consuming and less expensive, which makes them especially efficient for toxicity testing. In parts of Europe, certain types of toxicity testing on animals are completely banned because of the high effectiveness of alternative methods, according to The Humane Society Institute for Science and Policy.

Computer and physical models provide a promising way to replace the use of dead animals in the classroom. A research study conducted by Western Michigan University Medical School compares the dissection and prosection test scores of students. Dissection is when each student actively cuts and mutates the animal, while prosection is a pre-cut model such as a cadaver that can be reused. The study found that students revealed no significant difference between the two methods of studying anatomy, revealing that dissection in education contributes to the unnecessary deaths of millions of animals for no benefit to students and the future of medicine.

Currently, animal testing is an industry standard. To ensure ethical treatment of animal test subjects nowwhile we work to transition to a better system—laboratories must be monitored and regulated to prevent inhumane treatment of animals used in research. This is why the Animal Welfare Act of 1966 (AWA) was passed. The act, which protects researchers and animals from unhealthy conditions, has major flaws. Its vague terminology allows plenty of room for inadequate implementation of the AWA, ultimately enabling neglect of animal lives. In fact, the AWA's originated not to protect animals, but to protect the human owners of animals, as it was enacted to primarily prevent companion animals from being stolen from their human owners, according to Katharine M. Swanson's "Carte Blanche for Cruelty: The Non-Enforcement of the Animal Welfare Act" from the University of Michigan Journal of Law Reform.

More action needs to be taken to protect the lives of animals. This requires us to be actively aware of the damage that is being done. After becoming cognizant of the abundance of animal abuse in consumption and experimentation, we need to start implementing solutions. It should not be an extremist approach to advocate for animals' lives. Simply revisiting many of our laws and procedures can drastically reduce the number of bodies used in the pursuit of scientific advancement. We can bridge the gap between the human world and the environment by treating the other animals that walk on this planet with more compassion and dignity.

