## by Nancy Ross

'We owe to science a deeper understanding of the world, but there is none the less, a dark face to science''. John Vyvyan, author of the Dark Side of Science.

Animals are raised in the dark to see what effects this will have upon their vision. The sexual behaviour of cats and rats are analyzed by removing their glands, nerves and brain tissue. Beagles are used in military research for testing radioactive material, poisonous chemicals, nerve gas, and substances for germ warfare. Animals are blinded in testing cosmetics.

More and more people are asking, or should be asking whether live-animal experimentation is really necessary or whether at least it can be cut to a minimum.

Professors, animal caretakers and other researchers who involve themselves with experiments using animals assure the public that the research is important and should yield credible results. But one wonders if all of it is really necessary, especially those conducted by undergraduate students.

The student who reported the incident said that at the time it was kind of funny but when you think about it, it was kind of perverted.

Many students have heard reports of how animals have been misused in experimentation, especially at the undergraduate level.

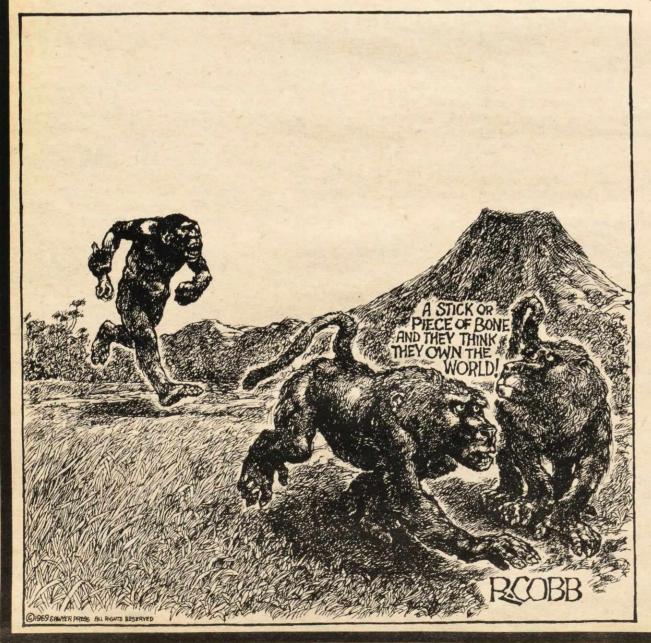
On Dalhousie student reported how another student misused a rat in a laboratory area. The rat was being trained in a maze which had grids through which electricity flowed. The student put the voltage up so that when the rat came in contact with the shock it would jump high above the maze as its muscles contracted. The student put plexi-glass on top of the maze so that when the rat jumped it would hit the glass. Eventually the rat convulsed and died of a heart attack.

One student attending St. Mary's University, who wished to remain anonymous, took a psychology course there which involved experimentation with rats. The students were to train the rats to press a lever on various schedules. They were told to feed the rats everyday. The student said that she, along with several other students, felt it was a drag going everyday to feed the rat and felt it wasn't worth it. So, some of these students injected their rats with Lestoil causing them to die instantly, rather then having to feed them. Other students just let their rats die.

It seems that this type of abuse has often occurred.

"Ask not can they talk or reason? Ask can they suffer?" said the English philosopher Jeremy Bentham.

Dr. Ronald Puccetti, a philosophy professor at Dalhousie, who is noted for his concern about the ways animals are used in experimentation said that due to modern research it has been found that animals.



even lower vertebrates, are capable of feeling pain.

They produce a hormone named enker halon which is used to block feelings of pain. Human beings also produce this hormone and it has been found that other animals produce amounts equal to them in proportion to their body weight, said Puccetti. It is produced in the spinal cord in lower vertebrates and in the brain in. higher species.

Today, in most experimentation involving animals, anaesthetic is now used bearing these findings in mind. But the question to ask according to Puccetti is whether the cold-blooded killing and mutation of animals which sometimes occurs is always serving a useful function in the pursuit of knowledge.

Puccetti also asks whether might is right? For example, he said, suppose some outer-terrestrial beings landed on earth and decided to experiment with human beings, would we think it was right?

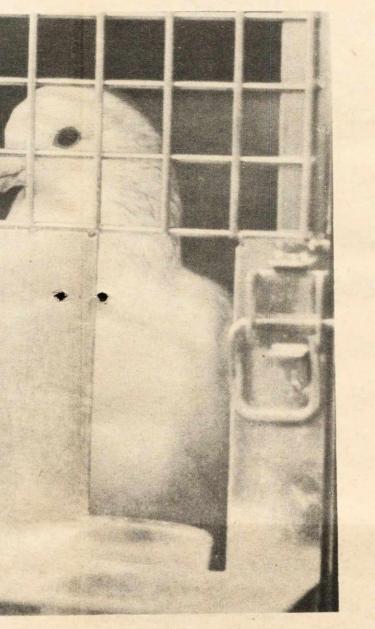
Dr. Jim Love, in charge of the animal care center at the Tupper building, said all the experiments which occured there were monitored for pain. He said the amount of pain these animals experienced were cut to a minimum, unless it was pain that was being tested.

Dr. Love said that the cages these animals lived in were kept clean and that they were fed well. Some animals are now

This is exemplified by the research carried out by Dr. Cynadr, of the Psychology Department, with cats to study vision. He may suture an eye of a cat, raise a kitten in an environment without light, or place electrodes in their brain all of which he feels is justified if our knowledge of the human visual system is to be increased.

with cats.

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being bred in cages and will remain in them until they die or are killed. Animal lovers question the quality of life for a caged animal. But defenders of animal research say it is necessary.

Dr. Phil Dunham, chairman of the university animal care center in the Life Sciences Building said "a lot of time, effort

and care go into the planning of the research animals will be involved in.' There are some benefits to be derived from animal research and Dunham said there is no other way to obtain them.

The discovery that it is extremely important to correct vision early if a child is born with crossed eyes or other visual defects was made largely through research

The majority of anti-vivisectionists, however, are not suggesting that all animal experiments be stopped, but simply that a large number are unneces-

Students of our university conduct experiments using mainly rats and mice. Goldfish, pigeons, dogs and cats are also implemented.

Some experiments conducted by second, third, and fourth year students in psychology and other departments involve

the implantation of electrodes by fitting a rat into head-holders and drilling a hole in its skull. If they miss the area they were drilling for, they will drill another hole into the skull. Once an electrode is firmly imbedded in the skull the rat can receive

electric shocks through a wire attached to the electrode.

One student gave me a demonstration of this after he had implanted an electrode in the pleasure center of the rat's brain. He explained that if the rat was allowed to receive enough volts he would eventually go into convulsions.

Experiments such as this do not seem to be unveiling any new knowledge to mankind but are just providing students with material for laboratory reports.

Another student reported that in an animal physiology class, the traditional way of killing a rat was grabbing it by the tail and swinging it up against a table so that its neck would break. But sometimes the students failed to kill the rat in their first attempt ...

According to an article in the World Atlas Press Review Press Review, a few years ago in the U.K. five million experiments on live animals were conducted, of which 592,694 were experiments for non-medical purposes, to test such things as cosmetics, weed

killers and household products. In the U.S. 63 million animals were used in just one year of which 85,000 were primates, 500,000 dogs, 200,000 cats and 45 million rodents.

What bothers humane societies the most is that only a third of the experiments done on live animals are for medical research. Some experiments are of very little or no value.

Animals are often used for the testing of cosmetics. In one routine test, concentrated shampoo is dropped into the eyes of rabbits to see how much damage is done. Since rabbits have no tear ducts they have no way of washing out the irritant. The process often blinds them and always causes them intense suffering.

The exploitation of animals is universal. One may ask do they have rights? Of course they should.

There are powerful arguments to introduce the following measures recommended by the president of the International Association Against Painful Experiments on Animals:

 An immediate ban on all experiments on live animals which cannot be shown to have relevance to the treatment or prevention of disease.

 An immediate ban on the duplication or repetition of experiments.

• An immediate ban on experiments where obvious or prolonged suffering is likely to ensue.

• An immediate ban on the use of animals where alternative non-animal techniques exist.

Also, the use of live animals in experimentation should be stopped in undergraduate programs. Chairman of the Psychology Department, Dr. J. Fentress, said that one could argue for other methods of learning, especially at the 200 level, rather than using animals. For example, implementation of more filmstrips, models of the brain, or live cellular structures could serve as alternatives.

Other pscyhology professors said that this topic was a sensitive area and involved tricky questions, I think, ones that should be thought about in an attempt to cut down on the number of useless experiments which mutilate and destroy life needlessly.

