

Everyday ethics in animal experimentation

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Whatever may be our opinion on the rights of man to perform experiments in animals, we who work with laboratory animals do have certain responsibilities towards them. We must make sure that our animal never have to suffer more than necessary for a successful experiment. This basic requirement we must never neglect.

Legislation poses some duties to the experimenter. He must carefully consider the necessity of his experiments, he must use animals of the lowest evolutionary stage possible, and cause the animals as little pain and discomfort as possible. His methods must be sparing and gentle. The housing conditions of his animals must be adequate and the animals must be painlessly killed after the experiment.

In practice the principle of everyday ethics presupposes e.g., that a surgical operation is performed skillfully, causing the least possible tissue damage, and that adequate anaesthesia, pain relief and pre- and postoperative care are given. Injection and sampling techniques must be mastered so that they cause no unnecessary pain. Methods of restraint must be gentle and they must not cause fear or discomfort. Instead of using force the experimenter must try to win the animal's confidence.

It is not always realized that also habituating the animal to the test situation and experimental procedures is an essential part of everyday ethics. Habituating and gentle handling together with confident relations to man effectively lessen the animal's fear and stress during the experiment. When the effects of stress and fear are minimized, we will not only have a more content animal

but also a more stable one and thus, finally, more reliable results in our experiments.

We animal experimentators are well enough aware that in order to get reliable results we must use animals of defined genetic and microbiological status housed in high quality animal quarters. Now it is time to widen our view; we must learn to consider our animals not only as sensitive biological material but also as living, feeling beings. We must realize that concern towards the well-being of animals will not ruin our experiments nor is something unsuitable for a real scientist. It is, beside being our ethical duty, also an advantage for our research.

The principle of everyday ethics does not, however, apply only to animal experimentators and animals in experiment, but to all those working with animals – animal technicians, laboratory personnel etc. – and all the animals bred for experimental purposes from birth to the painless end.

Our animal welfare legislation presumes that the basic needs of the animals are met with. The animals must have an adequate supply of food and water. The cage must be large enough to allow the animal to stretch to its full length and to stand and move normally. Sick animals must be either cured or killed painlessly.

However, this is not all needed for the well-being of an animal. The animal has beside physical also psychological needs! In order to be able to evaluate the animal's wellbeing we must also have some knowledge of its behavioural features. We must get acquainted with our animals, we must find out what they really are like.

In the nature the relatives of our laboratory

rodents move a lot of seeking food or shelter or investigating their surroundings. Behavioural tests show that they also move when there is no immediate necessity for it – a rat can go for jogging. We have to ask ourselves whether the standard cage size is enough, are the behavioural requirements met with. We must have courage to admit that even the international recommendations may need re-evaluation. A standard rat cage, for instance, is too low to allow rearing. Yet, rearing is very typical of the rat and an essential part of its social communication and exploratory behaviour.

Sufficient amount of stimuli is essential for the normal function and development of the animal's brains – and thus, for its wellbeing. If the animal doesn't get enough stimuli in the nature, it will actively seek them. Likewise, in a maze a sufficient reward for the laboratory rat is a possibility to explore new surroundings or objects; no fasting with food reward or punishment for a "wrong" performance is necessary.

Life in a cage is rather dull and uneventful. We must try to find ways to keep the animals occupied. Beddings provide one practical stimulus, hay is known to be important for rabbits and guinea pigs. The guinea pig's habit to spend time playing with water is all too well known. There are possibilities to improve environment if we only are ready to recognize them!

Contacts to the species mates and man are extremely important for social animals like rats, mice, guinea pigs and rabbits. An adequate group size is essential for the well-

being of the animals, which is observed in their behaviour as well as e.g., in the levels of stress hormones.

Isolation from species mates is very stressful for a social animal. The isolation stress of e.g., rabbits caged singly can be alleviated by the possibility to hear, smell and see species mates. The laboratory rodents, being social by nature, can also create social contacts with man. It is of utmost importance that the animal caretaker is actively interested in the wellbeing of the animals and also will – and is allowed to – take time for individual contact with the animals, beside routine care.

There is still much to do for the welfare of our animals, but much can be done with careful consideration and goodwill. We need animal technicians who can identify themselves as members of the research team as well as "animal welfarists". We need, on all levels, people who have knowledge on animals and willingness to apply it in practice. We need people who have courage to question old routines and skill to develop new ideas.

We must, over and over again, ask ourselves how we could further improve the welfare of our animals. But even this is not enough! We must listen to the animal, we must ask which cage it prefers, which kind of enrichment . . . Subjective evaluation by man may be misleading, what we need is objective information. We need research on factors related to the welfare of our animals. It is high time to invest in this field of research even here in Finland.