

# The Death Penalty or Lifelong Encagement: Moral dilemmas about animals-without-further-destination

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**I**n the first part of this article we consider the emotional burden that comes with killing a laboratory animal. We go on to raise questions about the value of the animal and its future perspectives. In the central part of this article we describe the different possibilities for the surviving laboratory animal once the experiment is completed. One of the moral dilemmas we treat in depth is the choice between the 'death penalty' and 'lifelong encagement'. We conclude by offering some practical recommendations.

Knowledge that an animal may survive an experiment has to be taken into consideration by any Animal Ethics Committee. In the process of approving the experiment, the perspectives of the animal after the experiment should be taken into account. Postponing this decision until it will be clear that there is no purpose any more for the animal is not in anyone's interest and certainly not in the interest of the animal. Humanely killing<sup>1</sup> an animal in such a situation may be an act of mercy and not just a cheap way of solving a problem.

## 1. The emotional burden of killing an animal.

Killing a laboratory animal often causes a sense of guilt. This sense of guilt will be enhanced when the animal in question is healthy and has been taken care of for a long time, and an emotional relationship has been established. Our feeling that a warm relation with a helpless living creature is needlessly ended inspires the emotions of guilt: You are spoiling

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<sup>1</sup> Although we think it is possible to speak of 'euthanasia' in the context our article, we prefer to use the more neutral term '(humane) killing'.

something; you are destroying something. Very negative feelings indeed. Despite the fact that with sick animals the same feelings may play a role, these feelings will certainly be less fierce. After all, in such a situation we are putting the animal out of its misery: an act of mercy.

Although in many western countries there is still support for the death penalty as a means to deal with barbaric crimes, an execution often brings about new public debate. The killing of a human is widely seen as unethical but a lifelong imprisonment seems to meet lesser objections. Apart from the fact that 'Though shalt not kill' has been laid down as one of the Ten Commandments, and has, as such, a high moral value, death is the end of having experiences, while 'lifelong' always holds a certain perspective. After all, a prisoner may eventually get a reduction of his or her penalty. A change of political climate, the birth of a prince, has led in the past to a reduction of punishment, and confirms the saying: 'While there is life, there is *hope*'.

Our ethical intuitions with respect to surviving laboratory animals seem to point in the same direction, when it is suggested that killing these animals is less ethical than to keep them alive, though engaged for the rest of their life. A strong argument in favour of lifelong imprisonment for humans is 'hope'. Not only, as said, because this hope often proves to be realistic, but also because people can *image* their future and put their present situation in a time perspective. We think, however, that animals do not have such abilities. Animals don't have the capacity to 'hope' in a human way, in the sense that this hope for a better future can relieve their present circumstances. But even, if they could 'hope' in some way: hope for what? Many laboratory animals (purpose bred) have been born engaged and cannot have any idea of a better future. And to be realistic, if we are not able to give them a better future (see 3.3.8 below), lifelong engagement remains lifelong to the end.

Arguments of those who oppose killing healthy animals for which no further employment exists can sometimes be paraphrased as: 'The animals were bred and kept for the benefit of science, but see what happens, as a reward for their suffering they were finally killed.' (Often words such as *murdered* or *slaughtered* are chosen to express the emotions and you will understand that *reward* is used cynically). It expresses the feeling that an animal somehow deserves to be kept alive by us. On the other hand you

might say that the researcher, out of empathy for the animals and keeping in mind their poor perspectives, feels often morally obliged to euthanase the animal. A kind of *coup de grâce* carried out under very difficult circumstances.

In practice the scientist mostly is neither the person who takes care of the animal, nor the one who actually has to kill it. The emotional burden of the killing is often not to the person who has the (scientific) merits of the experiment; just the burden and not the merits are for those involved with animal care and husbandry. That does not seem fair. It should not surprise us that the latter category, those who carry out animal experiments, are the ones who have objected most strongly to the killing of animals at the end of an experiment. The scientists have in general lesser objections.

Apart from killing animals after the completion of an experiment it appears that 'fatal experiments' with primates (especially chimpanzees) also are highly criticized. If this view is shared by many, it may be wondered whether experiments with these kinds of animals can be carried out. And for non-fatal experiments with them an even greater problem may be encountered in the end: what to do with the surviving animals? Sooner or later a difficult ethical dilemma has to be solved. Preferably this should be done sooner and not later.

To summarize, we think that despite the feelings we may have with respect to the animal and despite the emotional burden of killing an animal-without-further-destination, we should face the fact that the choice of killing may well be the better of the two. Arguments for this conclusion, which should first of all refer to the animal's best interests, will be given below. So far we have drawn attention to the fact that laboratory animals are not capable of seeing their lives in a time perspective, which could relieve their present circumstances somewhat.

## 2. The intrinsic value of an animal obliges us to think about its future

If one morally accepts that animals can be used for experiments and killing is inherent to it, one need not deny that animals also have a life of value on their own. This value, independent of their laboratory or scientific value for us can be called intrinsic. Although we take it not to be an absolute value, it can and should be respected in a number of ways. Respect requires that animals should only be used for experiments when this is absolutely necessary. Russell and Burch have formulated (in their book *The Principles of Humane Experimental Technique*<sup>2</sup>) the three well-known R's: to use *alternative* methods if these exist (Replacement), to use *as few animals as possible* (Reduction) and to use *techniques and conditions causing the least harm to the animals* (Refinement).

A tension always exists between Reduction and Refinement. On the one hand we have to work efficiently with animals to get as much information out of as few animals as possible. One animal should thus be used as much as possible. On the other hand we are obliged to take into account each animal's interests, which implies a limitation on the time and the degree of pain and discomfort that one may impose on an individual animal. We take the view that an endless reuse of laboratory animals is not a responsible way of reducing the number of animals; therefore Refinement should have priority over Reduction. Each individual animal should morally be taken seriously. We should not only be concerned about the best experimental conditions in order to gain sound scientific knowledge, but also about the living conditions we should create in the best interests of each animal.

We think that all this is consistent with an increasing awareness in our western culture that animals do have intrinsic value. This concept is adopted in the Dutch Animal Experimentation Act and has led to a so-called 'no, unless' rule, ie. killing an animal in the context of an experiment is not allowed without further argumentation. In a note on 'Killing and slaughtering of animals' the Minister of Agriculture speaks of permission 'under well-defined conditions and with good reasons'. The three R's form no doubt the basis of the Animal Experimentation Act, and also the

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<sup>2</sup> Russell, W..M. and Burch, R.L., *The Principles of Humane Experimental Technique* (Methuen & Co. Ltd., London, 1959).

limitations on Reduction in favour of Refinement can be found in Dutch policy.

According to some ethicists killing an animal is justified when the animal's suffering outweighs its happiness. Others formulate their view in a more animalcentric way arguing that we should kill an animal out of respect when its life contains less than a certain value or quality of life. In practice these two views do not need to lead to completely different conclusions. Both perspectives look for what is a reasonable, acceptable life for the animal, if we take into account its environmental and health conditions. We should define some standard between a reasonable-minimum and reasonable-maximum and this, of course, will leave room for discussion. However, many publications have appeared in laboratory animal science on the sizes of cages, health-monitoring systems, prevention of stress and cage enrichment. One may therefore assume that knowledge of reasonable life conditions for most animal species is or will become more and more available.

Whether or not *retirement* is an alternative for killing has widely been discussed by both proponents and opponents of vivisection. On both sides, however, one can find people who consider retirement as not quite satisfactory. In the discussion on retirement of animals-without-further-destination we have to determine what life conditions should be realized for these animals and for this we need a point of reference. Are we going to give a moral judgement on the basis of a comparison with the 'ideal' situation, or with more desirable, achievable, affordable or natural conditions? Do we want to compare the life conditions of surviving laboratory animals with those animals, which live in the wild or in a zoo? Each of these comparisons is problematic and does not get us much further. The circumstances of animals under laboratory conditions are quite different from those in nature. On the one hand the laboratory animal does not run the risk of being taken by a predator, on the other hand it is lacking the opportunity to participate in this natural predator-prey animal life. Likewise, the comparison to conditions in a zoo does not fit. In a zoo there is still a (human) purpose for the animals, whereas with regard to retirement of ex-laboratory animals this is mostly not the case. These considerations lead us to the conclusion that we have to develop a different (ethical) framework for animals-without-further-destination. In our view we should formulate life conditions under which an ex-laboratory animal can live its life in such a way that it is a reasonable presumption that the

animal does not suffer any abnormalities in behavior. This seems to us to be a reasonable minimum, which will guarantee the animal at least the fulfilment of its basic and fundamental needs. We will return to this point below. It would imply that if we are not able to create these 'caring' conditions, we should give a moral preference to killing.

There are many possibilities to stimulate an animal to do more physical and mental training in order to be able to cope with boredom. It is doubtful, however, if this would benefit the animal much, if many needs are still not fulfilled. It may then live and die in a good condition, but it would nevertheless lack the proper living conditions it should in our view have. So we have to be critical here and ask: 'What do we intend if we keep animals alive after an experiment, when we can offer them only inadequate living conditions?' Do we value their life because there is still *some* pleasure in it? We consider this standard too low. Do we think that an animal-life-over-time should be seen as a whole, and should be lived *entirely*, and that therefore it should not be ended? This, we hold, would be too anthropomorphic. The primary interests of animals concern the *present*, the fulfilling of their direct needs. Living a full life, however, we do not see as an end *in itself* for a laboratory animal, in that we should try, at all costs, to achieve this. Our position, of course, reflects the idea that the situation of human beings is different in some fundamental aspects – hope is one of them - from animals in the context of a laboratory and thereafter.

We are inspired by the ideal that we should offer the animal only a good life or no life and we have concerns about the circumstances in which experimental animals sometimes are left behind. One should not haggle with the situation of these animals, and accept less proper conditions for them on dubious grounds. One can be motivated by some feeling of guilt: 'they have been so valuable to us, we should at least, as a sort of compensation for what they have suffered, keep them alive'. It can also flow from deep feelings that killing is intrinsically wrong and should be avoided with all means. We think that these feelings can lead to confused motivations to keep these animals alive even when this is not in their interest, but at their cost. Sometimes they are even kept alive under doubtful circumstances for higher, ideological motives: to keep their unfavourable fate on the political agenda, by falsely choosing as the main factor in this debate factors which work against the interests of individual animals while suggesting that their circumstances can be improved. We should be very aware of all these mixed feelings and critical about the dubious motives.



It is, of course, possible that our emotions are nurtured by important intuitions. Therefore, emotions have not always to be suspected and should not be put aside too easily. They may indicate a moral sensitivity to life, for animals with a certain (or higher) conscience, and also for what should be our own place in nature and our attitude towards the life that surrounds us. Indeed, willingly or not, a close relationship with laboratory animals as our companions may have become a fact.<sup>3</sup> It would be fundamentally wrong for us not to pity these animals and leave them alone after the experiment with the devices we have given them to play with under undignified conditions, confused by what to do with their lives. This would - paradoxically - be a repudiation of the intrinsic value of the animal. When an experiment ends in a dead-end-street, we have to blame ourselves that we have not been less ambiguous about its destination and we should be open enough to reconsider our earlier decisions. It may be that in this situation the killing of the animal is the lesser of two evils, but the next time we should consider the options in advance, and more carefully.

It is common knowledge and accepted by most of us that in scientific experiments the interests of animals and of humans are in fundamental and inevitable conflict. We think, however, that it is essential for a society as a whole that more information be made available for the public about the benefits of certain experiments as well as the harms and burdens for the animals that go with them than there usually has been. The question of the justification of animal experiments should be widely discussed and far beyond local Animal Ethics Committees. Growing knowledge and awareness can contribute to more sensitive attitudes towards laboratory animals and a better justification of animal experiments.<sup>4</sup> The discussion on *death penalty* or *lifelong engagement* should also be placed in this broader context.

The healthy animal-without-further-destination is like a mirror held up to us, in which we appear as beings who deal reluctantly, ambiguously and hesitantly with these animals when we are confronted with their fate. On the one hand we should strive for explicit decisions and clear solutions. On

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<sup>3</sup> A. Beck and A. Katcher, *Between Pets and People*, Revised Edition (Purdue U.P., West-Lafayette, 1996).

<sup>4</sup> M.T. Hilhorst, 'Xenografting as a subject for public debate' in *The Social Management of Genetic Engineering*, eds. P. Weale, R. von Schomberg and P. Glasner (Ashgate, Abingdon, 1998).

the other hand it will go from bad to worse when we push aside our feelings and hesitations and come with hasty solutions or hide behind technical procedures. The best we can do is to analyze all the different options carefully and go through things systematically. This at least is what we intend to do in the remaining part of this article.

To summarize, respecting the intrinsic value of an animal obliges us to think about its future. We can only be guided by what the best interest of the animal is. We take this to be the *present* best interest, and not *our* hope that maybe, some time, we can give them better circumstances than they have at present. Any perspective over time, realistic or not, cannot alleviate an animal's present suffering. It would be far beyond the immediate needs, desires, longings and yearnings that animals have. It is our moral responsibility to do what we can to respond to them adequately. We should therefore guarantee that living conditions are available to them necessary to fulfil their basic and fundamental needs. If we can't, killing is the better option, which we should rightly choose. That we are left with ambiguous feelings is part of moral life, and should be taken seriously.

### 3. How the animal is terminated

An experiment can come to an end in different ways<sup>5</sup>

1. the animal dies, or the animal is killed for the purpose of or as a result of the experiment
2. the animal is killed for harvesting blood or organs
3. the experiment is terminated, but the animal does not have to be killed

#### 3.1

Based on data on the use of laboratory animals at the Erasmus University, relatively few animals die as a direct result of an experiment. This amount will probably be much higher when an institute performs toxicology

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<sup>5</sup> In most breeding systems there is no purpose for many animals. These animals are too old, of the wrong sex, etc., and may only be used in training programs or pilot experiments. Most of these 'unwanted' animals will still be killed without being used. With regard to mice and rats the number of animals killed in this way may be up to 10% of the total number of animals registered.



studies: it is still necessary to take 'death' as an endpoint in certain types of experiments (eg in challenge studies). These studies receive much criticism, however, and alternatives are sought in other more 'humane' endpoints. For instance, in studies in which a lethal infection is given, hypothermia may be used as a parameter of effectiveness of drug therapy, and therefore the animals can be killed before they suffer severe harm.<sup>6</sup> Whatever the procedures are, the sick animal's life cannot be saved.

### 3.2

Animals are often killed for no other purpose than merely the collection of blood and organs: about 12% of the total amount of animals involved in laboratory practice are used for this in the Netherlands, according to data on 1996.<sup>7</sup> It is remarkable that primarily rats and mice are used for this purpose, much more than the 'higher' animals such as non-human primates. The feeling is that with respect to rats and mice no real harm is done, but only mild discomfort. Killing as such is not regarded as additional discomfort by Dutch law.<sup>8</sup> Although killing animals is inevitable here and inextricably connected to animal experiments, a reduction of the number of animals could be achieved when researchers 'share' animals, ie using one animal for more than one purpose: someone needs the kidney, another one the liver, etc. The Animal Ethics Committee reviewing the animal protocols may be able to stimulate this sharing.

### 3.3

When the researcher completes his or her experiment and the animals have survived the procedures and will not be used for pathology, the problem arises concerning what to do with them. The following issues should have our attention, to see what role they may play:

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<sup>6</sup> E.D. Olfert, 'Defining an acceptable endpoint in invasive experiments.' *Animal Welfare Information Center Newsletter*, 6, (1995), pp.3-7.

<sup>7</sup> Veterinary Public Health Inspectorate in the Netherlands. *Animal Experimentation in the Netherlands. Statistics of 1996* (1997).

<sup>8</sup> An animal experiment is defined by law as: 'any act or series of acts carried out in relationship to a living vertebrate for the purpose of...', and 4 different purposes are then mentioned, 'in so far as it must be reasonable to suppose that the health of the animal may thereby be impaired, or that appreciable pain, injury or other grave discomfort may be caused to the animal'. In many European countries, the killing of an animal alone, ie. without any proceeding action, is not considered an animal experiment, because discomfort is not conceived to be at issue here.

- 1 preceding inconvenience to the animal
- 2 health status at termination of the experiment
- 3 animal species
- 4 laboratory animal housing conditions
- 5 financial considerations
- 6 emotions
- 7 time between termination of an experiment and the start of a (possible) new one
- 8 adequacy of housing conditions
- 9 way of humane killing
- 10 review by the Animal Ethics Committee

### 3.3.1 preceding inconvenience

In the Dutch Animal Experimentation Act the following clause can be found: An animal which has been used in an experiment in which the animal has endured severe inconvenience or long-lasting discomfort, regardless of anaesthesia or sedation given, is not allowed to be used in a following experiment except when the animal is healthy and in a state of wellbeing, and

- A the animal is kept in the next experiment under constant anaesthesia and will not recover, or
- B the next experiment is an experiment in which the animal is exposed to mild inconvenience only.

It will be evident that these restrictions given by the Dutch Law are in conflict with another basic principle of responsible use of experimental animals, which we mentioned earlier, ie Reduction. According to the Dutch Animal Experimentation Act, the Animal Ethics Committee should morally give priority to the animal's individual wellbeing, even if this would increase the total number of animals used.

### 3.3.2 health status at termination of the experiment

At termination of the experiment the animal can be:

- under anaesthesia

- sick as a result of the experiment (or as the result of a complication of the experiment)
- (bodily) healthy (again)

We think that it is ethically difficult to justify letting an animal recover from anaesthesia merely for the purpose of using it again, when during that period of anaesthesia surgical intervention or another invasive or radical manipulation has taken place. Recovering will cause additional harm to the animal and add to the burden that an animal has to bear. From the *present* interest perspective we described, a decisive argument can be derived to contend that it is better to prevent this new discomfort for the animal. We should not make ourselves believe - fool ourselves - that we can provide for some good life for the animal before it will be used again. The same holds for the situation where the animal is not healthy at termination of the experiment. It would mean that just for the sake of a new experiment the animal has to be treated for its illnesses and recover. Moreover, there are the restrictions of the Animal Experimentation Act (see 3.3.1). As a consequence of all this the real problems for potential reuse of laboratory animals will only be encountered when the animal is bodily healthy at the completion of the experiment.

### 3.3.3 animal species

In most ethical decision systems used by Animal Ethics Committees the 'psychological complexity' is taken into account, for instance by making distinctions between 'non-human primates' (more weight), cold blooded animals (lesser weight) and other vertebrates (neutral).<sup>9</sup> This implies that non-human primates, but certainly also companion animals, such as cats and dogs, will always get more specific attention when used as laboratory animals. Additional responsibilities will be implied when endangered species are to be used. This valuing should not be so much a question of higher and lower, or more and less, but of attributing *specific* value to each animal, according to its own particularities.

When we presume that killing a member of a 'higher' species is more emotional for the researcher than killing a member of a 'lower' species, then

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<sup>9</sup> J. Vorstenbosch, J.A. Joles, F.R. Stafleu and R. Tramper, *Weighing animal interests against human interests: ethics in the balance* (Center for Bio-ethics and Health Law, Utrecht University, Utrecht, 1997).

we must take into account that the requirements for good environmental conditions for these higher animals should also have to be substantially more complex. It can be assumed that a higher animal suffers more under the laboratory housing conditions than a lower animal. With higher animals we should therefore be extra careful, if we do not even want to run the risk of supplying them with unfit and consequently unworthy housing conditions. Interfering with the higher animal's basic or essential needs or with its species-specific behavior may damage its wellbeing severely and will be contrary to our respect for it. Moreover, we think that humans are more able than animals to cope with psychological stress as a result of pain, discomfort, or deficiencies in environmental conditions. Human's self-consciousness may enable us to escape the present conditions somewhat - as we argued when we discussed 'hope' - whereas animals seem to be inescapably 'captured' by the present and by their feelings. When we cannot fulfil these needs of the animal and not provide the necessary high standard housing conditions, for whatever reasons (eg this can be financial: see 3.3.5), the conclusion seems inevitable that the death of the animal is the least bad of two choices.

### 3.3.4 Laboratory animal housing conditions

Animal discomfort is dependent (among other factors) on the quality of the husbandry conditions a research institute is able to offer. It turns out that certainly dogs and non-human primates are particularly impeded in their species-specific behavior. For this we refer to the research and findings of Wemelsfelder in *Animal boredom*.<sup>10</sup> Husbandry conditions for these animals are usually justified by saying: 'They do not know better'. Wemelsfelder, however, makes clear that this argument should be seen as containing a fallacy. Scientific evidence supports the fact that animals that have been kept under good husbandry conditions are better able to cope with stressful procedures than animals that do not have such a history. Present laboratory conditions for housing of dogs and non-human primates prove to be amply sufficient according to the standards in the EC Council Directives.<sup>11</sup> If we really would take seriously our moral responsibility to guarantee the fulfilment of their needs in terms of their particular species-specific

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<sup>10</sup> F. Wemelsfelder, *Animal boredom: toward an empirical approach of animal subjectivity*. Thesis, (Leiden, 1993).

<sup>11</sup> EC Council Directives on the approximation of laws, regulations and administrative provisions of the Member States regarding the protection of animals used for experimental and other scientific purposes (1986).

behavior, with regard to exploration, play, socialization, foraging, etc., we would have to improve their conditions substantially. Under the present conditions only boredom and stereotypic behavior have resulted. It may be that animals, which 'have known better times' suffer more from these housing conditions and for that reason Animal Ethics Committees should be, we think, very restrictive concerning protocols in which the animal to be used originates from the wild or has lived with us as a companion animal.

Housing conditions for non-human primates are far from desirable. Despite the fact that good recommendations for the *short* term - as has been given by Wemelsfelder: re-socialization, more group housing, supply of wood chips for individually housed animals - may meet some of these demands, for the animal it remains caging in a way in which species-specific behavior still is severely hampered. Coen, an HIV-positive chimpanzee, may serve as a good illustration here. Coen has been supplied with a real television by the Dutch pro-animal organization *Pro Primate*, a well-meant effort to improve Coen's housing conditions. It seems to us to be rather a poor improvement in anthropocentric respect, but should we regard this as so much better from the animal's perspective? What are we trying to prove when we are keeping this animal alive in this way; and to whom are we proving this, and at what costs?

Only recommendations for the *long* term - as made by Wemelsfelder: such as group housing in wooded surroundings - will meet a part of the natural environmental conditions of the animals, in which their lives may flourish. However such a recommendation does not seem to be very realistic. It is not only that we seem to be not prepared to accept the financial consequences, but also a number of practical questions play a role as well. Firstly, resocialization of animals that have been housed alone for a long time proves to be difficult and often impossible. Moreover, for those animals for whom these improvements - whether farfetched or not - would be mostly necessary, ie the non-human primates infected with HIV or SIV, this even seems to be impossible due to the risks and dangers they inflict on others. In short, the only perspective for them is lifelong engagement under improper circumstances.

### 3.3.5 financial considerations

In principle, the reuse of animals will decrease the costs of animal experimentation. This is certainly true when reuse can take place soon after the previous experiment. If it takes a long time before they can be reused, however, or if retirement of the animals is intended, the money spent on housing can eventually be the largest part of the costs of the experiment. It seems reasonable that the scientist who does the experiment should be held responsible for these costs. At least, (s)he should be aware of them.

When the animals cannot be reused, but are still healthy after the experiment one has to decide what to do with them. Among the considerations should be a fair estimation of the costs of a retirement as part of the total costs of the intended experiment. Because costs for lifelong housing of animals under good housing conditions (*a conditio sine qua non*) may be very high, the implication is that retirement of animals-without-further-destination will no doubt be at the expense of other experiments. For those who do research there seems to be then no other way out than killing the animals, if they will not close off their (and society's) future research. It does not seem fair though to saddle them or the Animal Ethics Committees who have to judge their protocols with this dilemma. The choice between killing and keeping alive under proper housing conditions is not only a financial one. It is also ethical. It is between the (justified) interests of research and the (justified) interests of ex-laboratory animals. It is about what a society can afford and probably should do for these animals which we have purposely brought into our community and about what costs we are prepared to pay to keep them alive. In the end it is about society's priorities and values and therefore we must conclude that society as a whole should be involved intensively in this discussion.

### 3.3.6 emotions

An emotional relationship may develop in particular between companion animals (cats, dogs, etc.) or primates and those who are taking care of them. This relationship may be closer as the period of care-giving has been longer. A decision to kill an animal-without-further-destination, which has been taken care of for a long time, will certainly bring along a lot of resistance and argument. However, we have to realize that these emotions may be not completely free of self-interest. The one who is taking care of the animals may feel that his or her daily work is taken away. Or the scientist may,

when confronted with the high costs of lifelong husbandry, too easily decide in favour of killing. We have pointed earlier to all the mixed feelings and dubious motives that can play a role, and we should be aware of them and critical about them. Motivations either to kill or not to kill an animal need not always be in the best interest of the animal.

### 3.3.7 time between the completion of an experiment and the start of a new one

In general laboratory animal housing conditions are not adequate for a long time and certainly not for lifelong husbandry. When a proposal is made for an animal experiment in which animals may have to live for a long time under laboratory housing conditions, one should also take into account this discomfort for the animal and not only the harm and burden caused by the experiment itself. A fair assessment of the proposal is only possible when the total amount of harm is considered that an animal has to sustain. In fact, one should realize that the experiment to be reviewed is just a small part of the total life span of the animal. It is important that data for each animal be available concerning its future housing conditions as well as its history and what the animal has already endured. A moral judgement should be based on complete data about an animal's life as a whole, from its birth to its presumed death. Most of the time we only weigh the possible infliction of the animal's wellbeing in say a 3-month experiment, and forget that many of the animals still have a period of many years ahead, which are not at all free from discomfort. This, however, should not be left out of the equation.

When reuse of an animal is considered we should know how long each animal has to wait for its next (second, or third, etc.) experiment. One should be very clear about this. A period longer than some weeks, we think, is not acceptable. Some time is needed for monitoring the condition of the animal, to be sure that it is completely fit again to take part in the new experiment; but no more time than that, if we keep in mind that our laboratory housing conditions are too poor. Good management and explicit agreements are required from all parties involved. It should not occur that animals have to be killed (or suffer needlessly) because the next experiment is delayed or turns out to be not feasible. In practice, one should verify directly after an experiment the purpose for reuse and the period of time that has been agreed on. If this cannot be confirmed, the animal should be killed or retired, under acceptable conditions.



### 3.3.8 Adequacy of housing conditions

One may assume, based on earlier remarks, that we see it as the (first) researcher's responsibility to take care of good housing conditions. He or she also has to be held responsible for adequate outplacement for those animals that are eligible for it. Animal welfare officers or other people responsible for the wellbeing of laboratory animals may offer help and may have knowledge of the locations where reused animals can be placed. The Animal Ethics Committee should take it as their responsibility to consider whether the conditions of outplacement are in the interest of the animals. One of the conditions should be that animals would only be placed in and accepted to and from institutes that adhere to husbandry conditions that meet good standards. It would be an excellent task for the AAALAS, an organization that accredits animal care and use programs, to describe such standards and register institutes that meet these.

It would also be a good thing for data on demand and supply of surplus animals to be available and through a data system easily accessible. In a very early stage it then will be known whether it is possible and realistic to have a certain animal reused. Today, all too often we 'push' an animal - coming out an experiment - into a new experiment, or begin to think of a new experiment, just because the animal 'is there'. We may be able to prevent this in the future by working more methodically. When early proposals for new experiments are made the Animal Ethics Committee and the animal welfare officer may persuade the researchers to have them placed on a list, either as a demander or a supplier of reused animals.

### 3.3.9 way of humane killing

Recently two articles of an EEC working party on euthanasia have been published in *Laboratory Animals*.<sup>12</sup> Methods described in this report can be considered as the 'state of the art'. They concern all the technicalities on the methods of killing. If we accept these as given, we think that the discussion on the killing of animals-without-further-destination can be directed to the

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<sup>12</sup> B. Close, K. Banister, V. Baumans et al, 'Recommendations for euthanasia. Report of a working party. Part 1 *Laboratory Animals*, 30, (1996), pp.293-316 and B. Close, K. Banister, V. Baumans et al. 'Recommendations for euthanasia. Report of a working party. Part II *Laboratory Animals*, 31 (1997), pp.1-32.

question of under what circumstances killing is permissible or even morally obliged.

### 3.3.10 review by the Animal Ethics Committee

In our view the Animal Ethics Committee should consider very carefully those experiments in which the researcher indicates that the animals will survive the experiment and cannot be reused. If there is consensus that the great apes, such as chimpanzees are not to be used in terminal experiments or in experiments in which there is a risk that they may die, one may wonder if these animals can be used for animal experiments at all. In some countries such as the UK, there is an agreement that chimpanzees and the other anthropoids may not be used any more. However, such an agreement may not have much effect when researchers are still allowed to do their experiments elsewhere. On a global scale researchers as well as governments should therefore be asked to adhere to the statements laid down in the Great Ape Project.<sup>13</sup>

An Animal Ethics Committee still has their own responsibility and may decide that such experiments should not be carried out, based on the poor perspectives for the animal. But it would be of great importance when governments would be prepared to support the view that certain types of animals should not be kept any more for long under present laboratory and housing conditions. Either the conditions should be improved substantially or these experiments should end.

## 4. Conclusions and recommendations

When an animal survives an experiment, the researcher should be asked in advance what options remain for it. If the animal can be reused, we should define the conditions under which the next experiment has to be carried out. If the animal cannot be reused, we should explore the future perspectives for the animal in terms of its possible living conditions. These options and their consequences have to be discussed by the Animal Ethics Committee as an inextricable part of the moral assessment of the proposed experiment, and prior to approval. Optional destinations include, of course, a zoo or children's farm, etc. When no adequate housing conditions can be

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<sup>13</sup> P. Cavalieri and P. Singer, *The Great Ape Project. Equality beyond humanity* (Fourth Estate, London, 1993).

made available animals-without-further-destination should be killed humanely.

We recommend that a data system be created for dogs, cats, and non-human primates, and possibly some other animals as well, which should be kept in research facilities, accredited by AAALAC (or another organization evaluating quality programs). These data on demands and supplies should facilitate experiments that are reviewed by an Animal Ethics Committee and are both scientifically and ethically of high quality. (We are willing to set up such a data system!)<sup>14</sup>

## Biographies

*Dr. Will Kort is an animal welfare officer at the Erasmus University in Rotterdam, The Netherlands. He supervises the welfare of the experimental animals and does research on animal well-being in particular on the notion of 'refinement' of experiments. Dr. Kort has also carried out animal research for more than 20 years in the areas of microsurgery, transplantation and cancer. Most of his studies involved the use of rats but he has used other animals including non-human primates. Dr. Kort completed his Ph.D. in Biology in 1987. The title of his thesis was 'Stress, diet and cancer' (Rotterdam, 1987)*

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<sup>14</sup> This is a revised version of an article which appeared in Dutch in *Biotechniek*, 37, (1998), pp.18-24.





