

FARM ANIMAL WELFARE: THE INTERACTION OF ETHICAL QUESTIONS AND ANIMAL WELFARE SCIENCE

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Abstract

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Farm animal welfare has now been studied, within a scientific framework, for several decades. The framework does not include ethical issues, but unless measurements of animal welfare at farm level are embedded in an ethical context, there is a danger that these measurements will not be properly utilised. This paper considers the relationship between ethical questions and animal welfare assessment. In it, the following four key ethical questions are identified. What is the baseline standard for morally acceptable animal welfare? What is a good animal life? What farming purposes are legitimate? What kinds of compromise are acceptable in a less-than-perfect world? The authors suggest that animal welfare scientists need to reflect carefully on these questions if welfare assessments are to be properly interpreted and put to practical use. Such reflection will lead to a more transparent appreciation of the values underlying welfare assessment. In this way, it will both offer welfare scientists a greater awareness of their own value-assumptions and enable the same scientists to communicate effectively with the wider audience—farmers, consumers, pressure groups, policy-makers and so on—for which the results of animal welfare assessments are of concern.

Keywords: *animal welfare, assessment, ethics, farm animal welfare, public debate, transparency*

Introduction

Animal production in developed countries has changed considerably over the last 50 years. In Europe, this change was initiated by public policies in favour of more abundant, cheaper food. As a result, animal production became much more efficient, as measured by the cost of producing each egg or kilogram of meat or litre of milk. The pressure for efficiency subsequently became market-driven, with competition between producers and between retailers to sell food as cheaply as possible, and thereby acquired its own momentum. In many ways this can be viewed as a success story. Thus consumers in these countries are able to buy animal products at prices that are low relative to those charged in the past. In the 1950s it was typical for people in Northern Europe to spend between one quarter and one third of their income on food but now about 10% is usual. The fall in price of some individual animal products has been even more striking. In the Netherlands, for example, a worker in the 1950s could buy only seven eggs for what he was paid per hour, whereas in 2000 he can buy 400 eggs (P van Horne, personal communication 2003). At the same time,

farmers and farm workers, while declining in number, have, in general, been able to maintain an income that matches what is common in the rest of society.

Efficiency has been achieved by intensification. Farms have increased in size and keep more animals per unit area, either in housing or on pasture. Methods used on farms have favoured automation and other approaches to reduce the labour needed for each animal — for example, the use of cages or other types of housing that control the behaviour of the animals to make their management easier. Animals have also been bred to produce meat, milk or eggs faster and with a relatively lower input of feed. However, these changes in agriculture have had a price, and to a great extent that price has been paid by the animals. They typically get less space per individual than they did previously and many live in barren environments that do not allow them to exercise their normal range of behaviour, while genetic selection has been accompanied by increased problems with production-related diseases (Webster 1994). Profits from increased efficiency are generally short-term, as they are regularly pared away by competition to reduce selling prices. Yet some of the changes by which efficiency has been increased, for example reduction in space allowances, have produced long-term harmful effects on the animals. Over the last 20 years or so public awareness of the way in which farm animals are treated in intensive production systems has increased (Appleby 1999).

The growing awareness, particularly in Northern Europe, has led to various initiatives under the heading ‘animal welfare’. Politicians have been keen to do something about this, but have been under great pressure from the farming community and agribusiness not to interfere without very strong arguments. One response has been to channel money into the study of animal welfare. This has produced a steady increase in budgets for welfare research in Europe, at both national and EU level, from the 1970s onward. Similar developments have taken place in North America and Australasia.

The term ‘animal welfare’ indicates a common goal, even though there is diversity in understanding of the term and the underlying concerns. In the scientific world the term has been given a more or less well defined scientific meaning. Initially the study of animal welfare was met by scepticism from those working within more traditional disciplines of science. Therefore it was important in the early phase, while farm animal welfare was becoming established as a subject for research at universities and agricultural research institutes, to stress that this was a genuine subject of scientific study and not something tainted by political motives or subjective emotions. A conventional scientific approach, with experiments focusing on effects of single factors under controlled circumstances, was also generally adopted.

Farm animal welfare has been intensively studied for some decades now and many useful results have been produced. However, the way research has been conducted has turned out to have some limitations. One reason for this has been the tendency to focus on single factors, such as stocking density, group size and floor type. When it comes to assessing the welfare of the animals on a specific farm or in a specific group there is no simple way to add up the effects of all the individual factors on the welfare of the animals. There is a particular problem with one factor that has a huge effect and which is known to vary considerably between farms or laboratories: namely the factor defined by management and stockmanship. This can be as important, or even more important, to the welfare of the animals as resource factors such as housing and nutrition.

Another complicating factor is that studies of animal welfare are conducted using widely different methods. Some scientists study the behaviour of the animals, using, for example, stereotypies and other forms of abnormal behaviour as indicators of reduced welfare

(Lawrence & Rushen 1993). Other scientists interpret welfare from so-called 'objective' indices such as concentrations of stress hormones or other physiological measures. Finally, some scientists use incidences of diseases or signs of ill-health as indicators of welfare problems. However, there is widespread agreement that if a measure of animal welfare is to be valid it should as far as possible make use of different methods. Thus there is a need to develop and validate ways of measuring animal welfare that combine indicators from different approaches. Recently researchers have started developing such combined measures for application at farm level (Sørensen & Sandøe 2001). This development is clearly to be applauded.

However, it is important to be aware that the applicability of animal welfare research is not only a matter of being able to make reliable and valid measures of animal welfare at farm level. It is also necessary to take a closer look at the other self-imposed limitation of animal welfare science — the exclusion of ethical issues. Problems concerning animal welfare are embedded in a wider ethical context. If there is no reflection on how results of animal welfare research fit into this context, there is a danger that these results will not be properly utilised.

The aim of the present paper is to show how ethical questions interact with welfare assessments in finding ways of dealing with modern intensive animal production. We suggest that at least the following four ethical questions play a role and therefore should be considered whenever the results of studies in animal welfare science are going to be put to use:

- 1) What is the baseline standard for morally acceptable animal welfare?
- 2) What is a good animal life?
- 3) What farming purposes are legitimate?
- 4) What kinds of compromise are acceptable in a less-than-perfect world?

We would like to stress from the outset that our message is *not* that animal welfare scientists should stop doing science and instead become ethicists. Rather, the message is that animal welfare scientists ought to reflect more on the values underlying the subject that they are studying, so that they can give advice that addresses the concerns of society regarding animal welfare.

First ethical question: what is the baseline standard for morally acceptable animal welfare?

Often, in discussions about farm animal welfare, comparisons are made with how the animals used to live under farming conditions 50 or 100 years ago. The underlying assumption seems to be that it makes a big difference from a moral point of view whether the conditions of the animals have deteriorated or improved. Those who are critical of modern intensive animal production will typically argue that the animals now live a life that in many respects is much poorer than that of their ancestors, while those with a more positive view of modern animal production will point out ways in which the quality of life of farm animals seems to have improved.

Such comparisons are problematic for at least two reasons. First, it seems that both arguments have a point, and there is no simple way in which one can be said to be right and the other wrong. It is easy to find both ways in which the life of most farm animals has improved (eg regarding nutrition and incidence of infectious diseases), and ways in which their life has typically deteriorated (eg regarding stocking densities and reproductive pressures). There is no obvious way in which one can add up the pluses and minuses and

decide whether the overall development has been an advantage or a disadvantage for the animals.

This leads to the second reason. Even if it could be shown that overall the welfare of farm animals is better now than it used to be 50 or 100 years ago, what would that show? Would it show that there is no reason to improve the conditions of modern farm animals? Compare this with issues in the world of humans — issues, for example, involving vulnerable groups such as mentally ill people, people with dangerous jobs or school children with learning difficulties. Would we accept as an argument for not improving the conditions of such groups the fact that their conditions were worse many years ago? Clearly we would not. Rather, the issue seems to be whether these groups get a fair deal relative to what is today technically and economically possible. The same argument seems to apply to farm animals.

What is a fair deal for farm animals? This question opens a very complex discussion. What counts as a fair deal depends on one's basic moral viewpoint concerning relations between humans and animals (Sandøe *et al* 1997). For the sake of simplicity, let us take a brief look at three points of view: an 'animal rights' point of view, a view with emphasis on 'ethics of care' and a 'utilitarian' point of view.

Seen from an 'animal rights' point of view, animals have the basic right to be treated with respect: to be reared and killed for human consumption is not, in this view, compatible with respectful treatment. Only in extreme circumstances where humans are not able to survive without eating meat does it become morally acceptable to kill animals for food. Thus, according to this principle it is fair to keep animals for production purposes only in exceptional circumstances.

'Ethics of care', on the other hand, takes as its starting point the notion that keeping animals for production purposes is in principle acceptable. This activity allows for a unique relationship between humans and animals that is of value for both parties. Of course, this relationship will not thrive under all circumstances. Therefore a fair deal will involve farm animals being kept under circumstances where people on the farm can sustain a caring attitude to the animals for which they are responsible.

Finally, from a 'utilitarian' point of view, what matters is the right sort of balance between animal and human interests. If we can show that it is possible to improve the conditions of the animals with no great cost to humans then clearly current practices (eg intensive rearing of poultry) do not represent a fair deal. If on the other hand the marginal costs of improving animal welfare are high, then the conditions of the animals may be considered more fair.

What becomes clear from this brief and incomplete glance at different ethical viewpoints is that there is no objective or neutral point of view from which the baseline can be decided for a morally acceptable treatment of farm animals. Rather, if a decision is to be made about what it takes for farm animal production to give animals morally acceptable conditions, that decision is bound to be relative to a moral point of view. Only from such a point of view will it be possible to make use of on-farm assessment of animal welfare, to decide whether animals under various farming conditions are given proper treatment.

Of course, there may be legislation in place, which serves to specify a baseline. Thus on a European level there is a Convention for the Protection of Animals kept for Farming Purposes issued by the Council of Europe (CoE 1976). The Convention has been adopted by the European Union and followed up by a EU Directive (CEU 1998). According to both the Convention and the Directive, those who keep animals for farming purposes must make sure that the animals are housed and kept according to their physiological and ethological needs. A number of recommendations made by the Council of Europe as well as EU Directives specify in much more detail what is the baseline for keeping various farm animal species. But

even rather detailed legislation needs to be interpreted and applied, and here clearly a moral point of view is needed. For example, implementation of the Recommendation for the Protection of Fur Animals has resulted in different legislative initiatives in different countries, as will be described below.

Legislation is usually not made from a specific moral point of view but rather serves to absorb different and often conflicting concerns and provide minimum standards. It is, however, fair to say that in many cases the administration of animal welfare legislation has strong affinities to a utilitarian way of thinking. The welfare of the farm animals is considered as a value in its own right, but one that has to be balanced against the interests of the agricultural community and the consumers of animal products. Faced with such a balancing act one may ask whether the balancing is done in an ethically acceptable way. Here a number of new ethical questions arise. One such question is whether the interests of the animals have been properly represented in the balance. This question leads on to the more basic question "What is a good animal life?"

Second ethical question: what is a good animal life?

It has become commonplace among animal welfare scientists that the study of animal welfare must always rely on a definition of animal welfare but that there is no agreement as to what is the right definition. What seems to be less clearly recognised is that the discussion about the definition of animal welfare is partly an ethical discussion concerning what is a good animal life. There is widespread agreement that animals which have painful diseases, which experience strong fear or anxiety, which freeze or feel hunger or thirst for long periods or which suffer in other ways have a less-than-good life. However, views diverge when it comes to deciding *what else* matters for a good life, apart from avoiding strong and/or prolonged experiences of pain and other kinds of suffering. Here there are different philosophies at play (Tannenbaum 1995; Duncan & Fraser 1997; Fraser *et al* 1997; Appleby & Sandøe 2002).

One type of philosophy claims that the subjective experiences of the animals are all that matter. As long as the animals do not face unnecessary suffering and they experience a sufficient amount of pleasure and satisfaction, then that is a good animal life. Another type of philosophy claims that certain objective features such as living a natural life and realising various species-specific potentials are important components of a good animal life. If things other than the subjective experiences of the animals matter, there can potentially be a trade-off between these things and, for example, the prevention of suffering.

This kind of philosophical discussion seems to underlie many discussions regarding alternative animal production systems: free range, organic and the like. Here, in some cases, there may be increased incidence of diseases and other indications that more animals are suffering than in intensive production systems. Some people will argue that despite the problems these systems are better for the animals. This may be because they think that other things than the subjective states of the animals matter when it comes to animal welfare. They may claim that being able to exercise a certain repertoire of behavioural patterns in a certain semi-natural kind of environment constitutes an important aspect of animal welfare. Of course, these people may agree that the suffering may become so severe or so widespread that it overrides their concern for natural living. But clearly they will draw the line concerning what is best for the animals at a different place than those who are concerned mainly with suffering, pleasure and the like. Therefore, an ethical discussion about what is a good animal life should be an integral part of discussions surrounding the assessment of farm animal welfare, both at individual and at farm level.

Third ethical question: what farming purposes are legitimate?

Part of the reason why many people see the production of meat, milk and eggs as a legitimate activity is clearly that the products are seen as fulfilling an important human need. To survive we need food and these products are all part of a normal human diet in our part of the world. Of course, it has been argued that we really do not have an absolute need for animal products and certainly do not need to consume them in the quantities we do to ensure a healthy diet. However, this is not the point. The point is that the ethical justification of animal production — if there is one — has to do with the human needs that are allegedly being fulfilled by this production. This raises another kind of consideration in relation to farming animals: “Given that one accepts animal production at all, are all purposes of animal production legitimate?”, “Are some human uses for animal products luxuries rather than needs?”. The debate about production of fur animals is a useful illustration of this point.

When looking at welfare assessments of farmed mink and foxes and comparing these to other farmed species, it may be concluded that from a welfare point of view these species are no worse off than other farmed animals (Spruijt 1999; Hovland & Bakken 2000). Thus, from an animal welfare assessment point of view, fur production may seem, like any other form of animal production, to have strengths and weaknesses; things that can be improved and room for development. Although fur production thus seems no different from other animal production in this respect, it has been the focus of more criticism than most other uses of farm animals. Some of the critique is aimed at common welfare issues, such as the conditions under which the animals are kept. However, the debate goes beyond this point, and a common argument is that fur is a luxury and therefore is not an acceptable purpose for production of animals. It is important to keep these two aspects of the discussion separate.

The debate about fur production shows that there are at least two different positions when it comes to discussing what is a legitimate purpose of animal production. One position is that fur production is like any other animal production and should be evaluated according to the same criteria; ie the evaluation of the production method should be independent of the purpose of the production in question. For others, however, the purpose of the production is of major importance, which puts fur production in a different category from other animal production. Although most people may agree that it is difficult to define exactly what is a human need and what is a luxury, to some people the production of fur is not an acceptable purpose. The need to wear fur is regarded as inadequate to justify the production of animals. As a consequence, some want to ban fur production completely no matter how well the animals are or could be treated as part of the production. Others may find it fair as a compensation to demand higher welfare standards for fur animals than are provided for other farmed animals: let the production of luxury to humans be justified by providing luxury to the animals.

Politically all the positions listed above have been taken, in different countries, in the process of legislating fur production. In the Netherlands the farming of foxes has been banned, because it is regarded as impossible to keep these animals in a way that is acceptable for their welfare. In the UK all fur production has been banned out of respect for ‘public morality’, and in Italy the criteria that must be met for fur production in the future are so demanding that completely new facilities must be developed.

What is considered acceptable animal welfare thus involves not only assessing how well off animals are in a given production system, but also evaluating the purpose of the production. Furthermore, compromises must be made, at least from a political point of view, between considerations for the animals and for other interests in society.

Fourth question: what kinds of compromise are morally acceptable?

In some contexts, to discuss what counts as a decent life for a farm animal seems academic. Because of market forces the majority of animal production has become intensive, and will remain so for the foreseeable future. In this less-than-perfect world, what are the options? If compromises must be made, which compromises are morally acceptable? In fact, all agricultural practices already involve some degree of compromise: there are limits to what is done to animals in any production system. The issue, obviously, is whether the compromise is biased too far toward human rather than animal advantage.

It is useful to distinguish between two sorts of decision about animal treatment here. The first relates to situations where there are distinct alternatives, often just Yes and No: either animals are to be kept for food or they are not; either they are to be kept in cages or they are not; or maybe there is a choice of several management systems. The second type of decision concerns the extent or degree of a treatment: for example, how much food or space animals are to be given. Taken singly, the former type of decision is less amenable to compromise than the latter type, but it is also true that the two types of decision may (and perhaps generally should) be discussed in combination. Thus there could be discussion of a possible compromise whereby, if animals are to be kept in cages, they should be given a large amount of space.

The 'animal rights' approach tends to concentrate on categorical decisions: asserting that animals have the right not to be used for unnecessary human purposes, or the right not to be maltreated; which may be interpreted, for example, as not being kept in cages. This approach does not tend to assert that animals have the right, say, to as much space as possible. As such, this approach is not conducive to compromise. Furthermore, adherents of animal rights sometimes indicate that what they see as small improvements in welfare are at best irrelevant and at worst counterproductive. For example, they often criticise proposals to increase the size of battery cages as not addressing the main abuses integral to such cages, and, worse, as likely to perpetuate use of cages. They see this compromise as immoral, in delaying rather than advancing the abolition of battery cages and, perhaps, also of the keeping of hens for eggs.

Ryder (2000) describes the formation of animal rights groups in the USA in the 1980s. He then quotes Henry Spira, who was a pragmatic activist who worked on one issue at a time, as commenting that "The war cry has been 'all or nothing' with the almost inevitable result being nothing" (Ryder 2000, p 202). Many animal rights groups advocate veganism and complete abolition of animal farming. However, in recent years several such groups have also campaigned for improved conditions for animals that continue to be farmed, so they seem to have modified their stance from absolutist animal rights advocacy to include more possibility of compromise.

The other two ethical approaches outlined above, the 'ethics of care' and 'utilitarianism', both rather more readily consider both categorical decisions and decisions about the extent of animal treatment, and therefore more easily lead to compromise. Among people who argue that the compromise inherent in animal production should be shifted in favour of animals, and who accept a 'utilitarian' approach wholly or in part, a major question is whether accepting small changes will decrease or increase the probability of achieving greater changes. Ruth Harrison (1991) argued that accepting small changes delayed and diminished the prospect of achieving an acceptable compromise. She felt strongly that the amount of space recommended for laying hens in floor systems by the UK's Farm Animal Welfare Council (1991) was much too small, and that this would not subsequently be increased but

would become a more-or-less permanent standard. On the other hand, evidence that incremental change does lead to greater change is provided by aspects of European regulation of conditions for laying hens. Initial changes were just to specification of minority, non-cage systems of management (CEU 1985). But increasing purchases of eggs from such systems eventually led to a Directive phasing out barren battery cages (CEU 1999). A counter argument from those favouring greater change is that the Directive continues to allow cages, albeit enriched. Such people hold sway in Germany, for example, which has decided to ban cages altogether, but it has been able to do so only in the context of the wider European Union decision to phase out barren battery cages.

The question of whether incremental change is morally acceptable or whether it is always better to press for greater change is perhaps intrinsically impossible to decide. There has perhaps been no specific case where holding out for large improvements in animal welfare rather than small was successful. But this has perhaps never been properly tested, because there were probably always some voices calling for compromise. In these matters there is usually someone quoting Bismarck's dictum from 1867: "Politics is the art of the possible".

Adherents of 'animal rights' may argue that the principle underlying such discussions of strategy — that the approach should be adopted that will in the long run give the greatest benefits for animal welfare — is wrong, and that the only important principle is that the rights of animals should not be violated. They may consider that this approach has been vindicated, in that the European Directive (CEU 1999) now respects the right of hens not to be kept in barren cages. Similarly, those who make a case for 'ethics of care' may say that we should treat our animals well and not think so much about what others may do as a consequence of what we do. Again, they may feel that the European Directive partly reflects a recognition of our duty to care for hens, rather than an emphasis on the outcome of our actions. Thus our answer to the ethical question, about which compromises are morally acceptable, determines our use of information concerning animal welfare.

Conclusion: using animal welfare assessments in a transparent way

It has become increasingly common to look to science for advice on political decisions on animal welfare. It is important that science keeps providing answers to the questions raised by society and that scientists keep giving advice to politicians as well as participating in the public debate. It is, however, equally important that scientists reflect on the ethical assumptions behind the research they perform and the advice they provide, and that they make these assumptions transparent. The importance of transparency in identifying underlying ethical assumptions becomes clear when we look again at the example of fur production. As mentioned earlier, a report on the welfare of farmed mink has concluded that although many things can be improved, welfare problems in mink production are less severe than those seen for sows and laying hens in commercial pig and poultry production. Furthermore it is argued that mink, despite a relatively short history of mink breeding, have adapted reasonably well to captive conditions (Spruijt 1999). Others, however, basing their conclusions on largely the same scientific information concerning mink, have concluded that mink welfare is poor and significant aspects of their natural behaviour are denied them on mink farms (Nimon & Broom 1999). The scientists clearly focus differently when assessing mink welfare. Thus it seems that the conclusions of the two papers have been based on more than just science. Ethical assumptions have also played a role. However, in neither case have these ethical assumptions been explicitly stated or discussed. This means that those who are going to use the results are not provided with a clear understanding of what is at stake.

When it comes to development and application of measures of animal welfare at farm level there are a number of ethical issues that should be in focus:

- *Conception of animal welfare*: what counts, ideally speaking?
- *Completeness*: what has been measured, and what not?
- *Adding up*: if there is a composite measure, how are the different states added up?
- *Fairness*: where is the focus — on the average, on the animals worst off, or elsewhere?
- *Baseline*: if there is a cut-off between acceptable and non-acceptable, what is the baseline?

Throughout the paper we have tried to show that ethical issues are an integral part of the farm animal welfare discussion, be it in relation to science, politics or public debate. If these issues are addressed in a clear way it may be possible not only to advance the use of science to improve the welfare of farm animals but also to improve the public dialogue about how animals are being treated in the production of food and fur.

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