5

Animal Welfare, Ethics and Organic Farming

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Editors' comments

Organic farming is built on values that form a coherent ethical framework. Animal welfare is an important part of that framework, and is a concept that has been discussed in many different contexts. How can animal welfare be conceived within organic farming? Can the animals have a good quality of life, and what ethical framework is relevant when dealing with this question? The emphasis on naturalness in organic farming is well known, and of course will greatly influence how animals' lives and welfare are perceived. The authors explore the connection between organic values and the perception of the quality of the lives of the animals in the organic herd. They present different ethical frameworks for thinking about animals in organic farming systems, then go on to discuss the dilemmas that can arise when the particular ethical approach chosen in organic farming must be applied to very down-to-earth choices in practical husbandry. Such dilemmas are challenging conflicts that may never be resolved to everyone's satisfaction, but force us to think about the choices we face.

Introduction

A striking aspect of man's relation to animals is its ambiguity. Not only may animals be perceived differently in different cultures (think of the sacred cows in India, for instance, compared with how the cow is seen in

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Western culture) – we sometimes see striking differences even within the same culture. Pigs in our Western culture offer a good example. Pigs have a long history of domestication (see Chapter 2). Today wild pigs still roam the forests. There they sometimes are hunted, but most of the time they can live their own lives – which also include less pleasant things, such as encounters with predators or freezing cold winters.

We further see, at one extreme, how pigs have been almost totally and massively instrumentalized into short-lived production machines, with natural science helping to increase the efficiency of this process. (However, it is also argued that compared with their wild cousins, farm pigs are provided a more protected environment, and given daily and scientifically composed rations of nutritious feed; as a result they display good physical fitness, which is said to be indicated by their high growth rates.) As production animals they are anonymous and treated as things, as objects. All that counts is their body, the meat. They can hardly be called 'Haustiere' any longer. Millions are killed every year, and when infectious diseases such as foot-and-mouth disease or swine pest occur, they are massively destroyed for purely economic reasons.

At the other extreme, there is a recent trend to keep pigs as pets. As such, pigs are very clean, friendly, intelligent animals, even loving music. They respond to individual names, and humans communicate with them as subjects. For those who keep pigs as pets, there is no doubt that these animals have consciousness, that pigs are individuals. It seems that the individual character of each pig gets a chance to manifest itself under the conditions of pet keeping. In this situation, it is not the body only, but also the pig's mind that is important. However, it is not uncommon that pet pigs are caused distress because of their owners' ignorance, such as regarding pig nutrition.

This example raises several questions: what is the essence of a 'good pig life', and what obligations do humans have to make such a life possible? One can also ask if human obligations to organic pigs should be any different from our obligations towards conventional pigs. This chapter is meant to be a non-technical introduction to these kinds of philosophical issues, relating to animal welfare and organic farming. Philosophy deals with issues usually left out of empirical science, which aims to be objective, value-free and rational. The philosopher reflects on the meanings of those terms. The reflections may concern a particular view of or attitude towards nature or animals, which underlies a certain definition of animal welfare – or the question whether the animal welfare concept really is value-free. Are not science and ethics necessarily connected when we discuss animal welfare?

Other important elements of a philosophical reflection regarding animal welfare in relation to organic farming are the role of the human in nature, the differences and similarities between humans and animals, and their moral relevance. Are farm animals looked upon differently in

organic and conventional farming, and if so, why? Are different values involved, or different views of man's place in nature?

We first give an overview of different interpretations of animal welfare and their relation to different lay and expert approaches to it. The importance of values to animal welfare is discussed and confronted with the role of science and the scientific ideals of being value-free and objective. The interpretations of animal welfare are then compared with different ethical frameworks, which can help clarify the moral aspects of animal welfare. We then discuss the values of organic farming as a departure point for a discussion of what a relevant view of animal welfare might be in the context of organic farming. This reveals obvious conflicts between different values within organic farming, with some of these dilemmas illustrated by examples from organic practice. Finally, we indicate the relevance of such philosophical questions on values and the meaning of animal welfare for the future course of the organic movement.

Different Understanding of Animal Welfare

The three situations of the pig described above exemplify three main elements in the concept of animal welfare. Appleby (1999) calls them *nature* (manifested in the wild pig), *bodies* (the pig as production animal) and *minds* (coming to the fore with the pig kept as a pet).

Accordingly, three types of animal welfare definitions are often distinguished, depending on what is considered important for the well-being of the animal (Fraser *et al.*, 1997):

- *The natural living approach*: the welfare of an animal depends on its being allowed to perform its natural behaviour and live a life as natural as possible.
- *The biological functioning approach*: animal welfare is related to the normal functioning of physiological and behavioural processes (often expressed as the animal's ability to cope with its environment).
- *The subjective experience approach*: the feelings of the animal (suffering, pain and pleasure) determine the welfare of the animal.

This distinction raises the questions of how these three aspects relate to each other, how animal welfare can be evaluated, and whether or not this evaluation can leave out moral issues, as some natural scientists believe. Another question is how animal welfare should be defined in organic agriculture. The answer to this last question has direct consequences for what the organic standards should prescribe.

Returning to the question of the relation among the above definitions, we find that complicated philosophical issues form the background. Depending on our basic outlook on life (what we think is important) and the different philosophical presuppositions that we carry, such as about

the nature of science and the relations among behaviour, mind (consciousness) and body, we can arrive at different conclusions regarding what is important for animal welfare. Occupation may also influence how we perceive it: thus, veterinarians tend to emphasize physical functioning, whereas ethologists tend to look at animal behaviour in the first place and physiological functioning second. When ethologists talk about disturbed behaviour in domestic animals, they usually refer to the natural behaviour of their wild relatives as the standard. This links to the animal welfare concept in which natural living is the most important criterion.

Do Animals have Minds or Feelings?

The existence and nature of subjective experience in animals is a central question in relation to animal welfare: how can we know that animals actually suffer? It has been an issue in Western intellectual debate since antiquity. Aristotle caused a philosophical crisis in the 4th century BC by stating that animals do not have reason, intellect or thought, which was a common perception of that time. The Stoics and the Epicureans also argued that only humans have reason and belief, and because of this they excluded animals from moral concerns. Even so, there were other ancient schools of thought that spoke against the denial of reason to animals. (An initiated review of the ancient debate is given by Sorabji, 1993.)

The dominating, traditional Western Christian view of animals and their moral status is substantially based on Aristotle and the Stoic tradition, whose thinking was refined in a Christian context by two influential Church Fathers: Augustine in the 4th and Thomas Aquinas in the 13th century (Sorabji, 1993). With a few exceptions,[1] European philosophers until our time have adhered to the dogma that animals cannot reason, and as a consequence have no rights in relation to humans (Taylor, 1999).

When modern science emerged, Descartes (1637 [1985]) set the direction with his notorious statement that animals are to be compared to machines, without minds or feelings, although this statement did not remain undisputed. Taking a quick leap through history, one can contrast this with Charles Darwin (1890), who saw the differences in mental capacity between humans and other highly developed mammals not as fundamental but gradual, both among species in the course of evolution and among existing species.

[1]The most notable is perhaps Jeremy Bentham, the founder of modern utilitarianism. He argued that the issue of animal mind and reasoning was not relevant to how humans should treat animals. In a famous passage he stated that 'the question is not Can they reason? nor Can they talk? but, Can they suffer?' (Bentham, 1789 [1970]).

When ethology emerged as a scientific discipline in the late 1800s, early ethologists generally recognized animal subjectivity (Rollin, 1989; Burkhardt, 1997). By the mid-1920s, two distinct approaches could be discerned: behaviourism and ethology. Behaviourists sought to apply the methods of 'hard science' such as chemistry and physics, and thus confined their research to the animal's physical behaviour and measurable biological functions associated with it. Some took a step further and adhered to the logical positivist standpoint that drew a hard distinction between the 'meaningful' statements of empirical science and the unverifiable and therefore 'nonsensical' statements of disciplines such as religion and ethics. They also regarded questions about consciousness as unscientific – thus leaving the question of animal feelings to the philosophers. Darwin's notion of mental continuity was strongly criticized by this group.

Classical ethology emerged from zoology, mainly through the work of Konrad Lorenz and Niko Tinbergen in the mid-20th century (Eibl-Eibesfeldt, 1975). They also took issue with the vitalism and subjectivism of the early ethologists. Tinbergen (1942), especially, claimed that ethology has to be uncompromisingly 'objectivistic'. Still, ethologists use a 'mentally loaded' language when describing this behaviour (aggression, fear, stress, etc.). This is often defended with the so-called *analogy argument*: when certain behaviours or physical functions appear in animals and similar features can be observed in humans, where we know from our own experience that they correspond to certain feelings, these feelings are assumed to be present in animals also. Thus, although the animal's 'state of mind' cannot be measured directly, it can be measured indirectly through such parameters. However, not all scientists agree this is a valid argument. For example, Bermond (1997) states that the brain's prefrontal cortex is crucial for the human experience of suffering. Since phylogenetically it is the most recent structure and absent in most animals except primates, other animals would be unable to experience suffering. (However, others argue that other parts of the brain can have the same function in those species.)

The emergence in the 1970s of cognitive ethology (Griffin, 1976), animal psychology, and animal welfare science have put the issue of animal consciousness on the agenda with new force (see, e.g., Allen and Bekoff, 1997). The debate continues among philosophers as well as scientists, with defenders of each doctrine coming from both camps. Part of the current discussion is given in Dol *et al.* (1997). Even so, the standpoint that animals do not have minds has become increasingly outmoded among philosophers (Taylor, 1999), and among ethologists, Tinbergen's strict approach has been softened. Thus, the study of individual reactions and behavioural nuances is no longer excluded as a useful approach for understanding the subjective lives of animals, and theories that include subjective experience are conceivable (Fraser, 1999).

Values and Science

How one views science is crucial to one's understanding of animal welfare. If you state that science has no access to animal consciousness, you already presuppose a kind of dualism between mind and body, as if they were two totally different categories. However, the work of the Dutch ethologist Wemelsfelder (1993, Chapter 2), for example, has shown that this is not a necessary assumption. (Her research is an example of the new ethological approach suggested by Fraser above.) After providing an interesting overview of different views on animal subjectivity she pleads for an 'empirical approach towards animal subjectivity'. She maintains that 'the subjective aspects of animal behaviour are primarily manifest in our first-hand, common sense interaction with animals'. To get direct access to the subjective aspects we therefore have to keep close to our immediate (common sense) experience of animal behaviour, especially the animal's capacity to interact with the environment. She has developed a method of qualitative assessment of animal behaviour, demonstrating that observers from quite diverse backgrounds, including farmers, show significant agreement in their spontaneous assessment of the expressive behaviour of pigs (Wemelsfelder *et al.*, 2000).

Not all biologists agree with this approach, as becomes clear when we read the English biologist Wolpert (1993). He considers the task of science to be to abstract 'objective facts' from our common sense or 'phenomenological' experience of nature. This means that subjective, qualitative human experience (including value judgements) must be removed. Science's concept of 'nature' is not the same as the nature we see with our eyes, touch with our hands, or smell with our nose. Following this definition of science there seems to be an inherent opposition between the scientific and popular understanding of animal welfare (the way consumers view it, for instance).

A dualistic view like Wolpert's, which separates the mind (consciousness) from the body and assigns to natural science the task of studying only the physical aspects of the world, has consequences for the relation between science and ethics, as well as for the definition of animal welfare. It also affects whether moral values are involved in the scientific description of animal welfare. It means that values cannot be part of the material world, and they can only arise in the human mind. They are subjective, not objective. Scientists should aim for value-free (objective) research; the goal of science should be to describe animal welfare objectively as the animals' state of being, without making any value judgements. In line with this, Broom (1991) argues that the assessment of animal welfare can be carried out in an objective way, quite independently of any moral considerations.

In opposition to this view, the American veterinarian Tannenbaum (1991) has shown quite convincingly that this 'pure science model of ani-

mal welfare' has unexamined moral values implied in the definition of animal welfare, or already regarding the question of what objects and processes should be studied. He argues that the belief in the pure science model allows scientists to separate scientific and ethical questions, and to believe that their work is unaffected by political and ethical debates. Since the appearance of Tannenbaum's paper several studies have confirmed and reinforced his analysis (Fraser, 1995, 1999; Sandøe and Simonsen, 1992; Alrøe *et al.*, 2001). All these authors agree that it is important to make the underlying values explicit (later we will attempt to do this for the definition of animal welfare in organic farming). This means, for example, that each time it should be clearly stated which definition of animal welfare is being used, and why.

Different definitions of the animal welfare concept are thoroughly discussed in an article by Stafleu *et al.* (1996), who describe the historical development of attempts to make animal welfare objectively assessable. In the search for objective quantities, science removed itself from public concerns about animal welfare, which were based on the subjective experience approach. The scientific operationalization of the animal welfare concept also implied 'an erosion of the moral element of the welfare concept'. This elimination of feelings and moral aspects from scientific definitions of animal welfare leads to a gap between 'common sense concepts', having a political and social frame of reference, and scientific measurements. To be helpful for policy, scientists should make the values and moral choices behind scientific facts explicit, and also the relation between various scientific variables and overall welfare as a subjective experience.

Animal Welfare and Different Ethical Frameworks

Dimensions of values

One way of assisting the process of restoring values and moral issues to animal welfare science is to relate the issues of animal welfare to different ethical frameworks. If we agree that ethical values are intrinsically involved when we talk about animal welfare, the next step is to ask what we mean by 'values' or 'valuing'. In the literature about 'value clarification', three dimensions of valuing usually are distinguished (Simon *et al.*, 1978):

- *The cognitive dimension*: the idea of a morally desirable end-state, and the arguments why this state is preferable compared to other end-states (alternatives). A free moral choice is involved. An example is the idea that human beings should not treat farm animals as mere instruments, because they are sentient beings who can suffer.

Rational arguments may serve to provide us with a justification of what ought to be done. They are socially important for communicating our values to others.

- *The emotive dimension*: the affective component of values, related to one's inner experiences and feelings. For example, one may feel negative emotions when farm animals are treated as instruments, since such treatment does not comply with one's basic attitude towards animals or life. Emotions are very important in the sense that they draw our attention to the fact that certain values are involved. Feelings often serve as a necessary link between our cognitive knowledge and our action.
- *The normative dimension*: values telling us what we ought to do or not do (values as standards). For example, they may forbid actions such as torturing animals or promote actions that enhance the animal's welfare. A person who believes that animals should not be treated as mere instruments is also expected to act upon this idea, with a certain consistency.

These different dimensions of the valuation process can be recognized more or less explicitly in the different ethical frameworks.

Ethical frameworks

An ethical framework of thinking involves a certain basic attitude towards animals. It decides which animals or animal experiences should have moral status, and how normative concepts such as animal welfare should be defined. They integrate what we think about, feel about and do with animals. Thus, the meaning of normative concepts such as intrinsic value, animal welfare and animal integrity depends on the framework in which they function. There are several possible ethical positions (see Box 5.1). Below, the main positions are described.

Box 5.1. Ethical frameworks.

1.	Anthropocentric:	only human beings have intrinsic value or are morally significant
2.	Zoocentric:[a]	sentient animals also have intrinsic value or are morally significant
3.	Biocentric:	all living entities with a good of their own have intrinsic value or are morally significant
4.	Ecocentric:	species (not individual animals) and ecosystems have intrinsic value or are morally significant

[a]Also called sentientistic.

1. The anthropocentric framework

In a strict anthropocentric framework, only human beings have moral status, which means that we have no direct moral responsibilities towards animals. We could have indirect responsibilities to the owners of animals or, as in traditional anti-cruelty laws, because we believe that people who are cruel to animals may also be cruel to humans. Sometimes this is interpreted as the view that cruelty to animals may hurt other people who see it. Most anti-cruelty laws go one step further, however, prohibiting deliberate mistreatment of an animal without a good reason. Animal experimentation, for instance, is considered to be a good reason by most people.

An anthropocentric view of animal welfare is that as long as the animal is functioning well with respect to human goals (for example, as long as it grows and reproduces), it has good welfare. The emphasis is on biological functioning.

The basic emotive attitude related to this framework is man as a ruler or steward, having the (God-given) right to rule over the rest of nature. Human well-being is the most important thing, and animals may be used solely to serve human ends.

2. The zoocentric framework (also called 'sentientistic')

This theory differs from the anthropocentric one in saying that animal suffering is prima-facie wrong (that is, wrong unless supervened by another normative principle). When human beings deal with sentient animals, they have the responsibility to minimize animal suffering; the use of animals may be forbidden if it imposes too much suffering. The argument most often used to defend this view is the analogy argument mentioned earlier. Thus, only 'higher animals' are given moral status in this view.

Good examples of zoocentric thinkers are the philosophers Singer (1975) and Rollin (1995). Rollin introduces the concept of 'telos' to refer to the species-specific nature of animals: 'animals like humans have natures, and respect for the basic interests that flow from those natures should be encoded in our social morality' (p. 159). It is important to realize that it is not the nature itself that should be respected, but the interests determined by it. Genetic modification of animals, for instance, is not wrong in itself, according to Rollin: 'I never argued that the telos itself could not be changed' (p. 171). To change the telos of chicken through genetic engineering, so that they no longer have a nesting urge, means to remove a source of suffering for animals held in battery cages. They are better off than before. Rollin agrees that it may be better to change the rearing conditions, but as long as this is not expected to occur in our present societies, it is better to decrease the suffering. The presence of consciousness is a necessary and sufficient condition for moral relevance. Species cannot suffer. Thus, crossing species barriers is not a morally relevant issue.

Preventing animal suffering is not the only important element in Rollin's concept of animal welfare. It also is important to make animals happy in a positive sense (augmenting animal happiness involves satisfaction of the telos): 'Well-being involves both control of pain and suffering and allowing the animals to live their lives in a way that suits their biological nature.' Here we see a combination of the subjective experience approach and the natural living approach to animal welfare. Both Singer and Rollin represent a utilitarian approach to the zoocentric framework, weighing human versus animal benefits according to a principle of proportionality. The decision is then based on what gives the best results (cost–benefit analysis), for example the least suffering or the greatest fulfilment of individual interest. This means that the greater the animals' suffering, the greater the human benefits must be in order to justify the action.

3. *The biocentric framework*

In this framework not only sentient beings should be morally considered, but all living beings. In the most common interpretations of this framework 'integrity' is an important concept. This goes beyond the subjective experience approach to animal welfare. Mutilations of animals and the genetic modification of animals are seen as a violation of the animal's integrity. The concept of integrity refers to the 'wholeness' of the animal, which as a member of a particular species has a species-specific nature. The natural living approach to animal welfare fits into this framework.

A typical example of this way of theorizing we find in the work of Taylor (1984, 1985). Taylor introduced the concept of 'inherent worth' (comparable to the concept 'Würde der Kreatur' as used in Germany and Switzerland), which he defined as follows:

> the value something has simply in virtue of the fact that it has a good of its own. To say that an entity has inherent worth is to say that its good [welfare, well-being] is deserving of the concern and consideration of all moral agents and that the realization of its good is something to be promoted or protected as an end in itself and for the sake of the being whose good it is (1984, p. 151)

The domain of morally relevant natural entities is widened to all animals and also plants, thus all living things (teleological centres of life). Plants, Taylor says, do not have interests such as sentient animals, but we can say that something contributing to their good is of interest to them. The basic emotive attitude involved here is man as a partner to all living beings. As far as the normative dimension is concerned, we see a shift from the utilitarian to a deontological approach. In a deontological approach the act itself is judged by whether or not it conflicts with a normative principle such as 'respect for life'. 'We ought to respect life' then becomes a prima-facie ethical norm.

4. The ecocentric framework

The biocentric framework just described applies to individual organisms; species or ecosystems are not considered to have moral status. Only individual organisms can be seen as partners. In an ecocentric theory, in contrast, populations, species and ecosystems deserve moral consideration, while individual organisms are subordinate. In this framework, the killing of individual animals is not a problem as long as the survival of the species is not endangered. This is different from a biocentric ethic, where killing an animal may be seen as the final destruction of the integrity of the organism. The natural living approach to animal welfare fits into this framework when it is defined at the level of populations (or herds). An example is someone who pleads for grazing of cattle for ecological reasons, but who sees no problems with dehorning cows or castrating bulls. From an ecological point of view, it is difficult to defend the biocentric position of no killing. In an ecosystem, organisms are continuously being replaced, and from an evolutionary point of view, dynamics within populations are necessary for evolution.

In some interpretations of the ecocentric view, human beings are excluded. The ecologist Colwell (1989) is one example, stating that the human position in the ecosystem is ecologically and evolutionarily 'unnatural'. Human intervention in nature leads to a degradation (devaluation) of the intrinsic value of species. Natural (wild) species have intrinsic value, because they are essentially irreplaceable and independent of human will. As a consequence, individual organisms belonging to a certain species have no intrinsic value, and domestic animals or plants are excluded because they are not 'natural'. Regarding genetic modification of already domesticated species, Colwell (1989) sees 'no ethical justification for any bar on genetic alteration of domesticates, by whatever technical means'. Verhoog (1992) has criticized this radical dualism between wild and domesticated species. He suggests that domestication can better be described as a gradual process of 'denaturalization'.

In other ecocentric frameworks, it is an explicit purpose to include man in the ecosystem (Zweers, 2000). In these frameworks, man should foster an attitude of being a participant within the whole ecosystem, not a dominant ruler. Other species also have a right to existence.

Values in Organic Farming

Since values and specific ethical frameworks are involved in people's conception of animal welfare, it is reasonable to ask which of these relate to organic farming and what the implications are for the conception of animal welfare in organic farming. These issues have been raised by Alrøe *et al.* (2001), Lund and Röcklinsberg (2001), and Verhoog *et al.* (2003). The

principles for organic farming suggested by DARCOF (2000) also relate to this discussion.

DARCOF (2000) suggests three basic normative principles of organic farming as a means to guide decisions, for example on new research, use of new technologies and development of organic rules. In Denmark, there has been a comprehensive discussion of this ethical question in connection with a major new organic research effort. Three related principles have crystallized in the discussion: the cyclical principle, the precautionary principle and the nearness principle. So far, these principles have been used in an analysis of the acceptance of different technologies in organic farming and as a basis for making suggestions on future developments.

- *The cyclical principle* concerns how to interact with nature. It says that organic food cycles should emulate and benefit from nature's systems and cycles, fit into them and help sustain them. This is the oldest and most established organic principle. Related concepts are the ecological principle and the idea of naturalness.
- *The precautionary principle* concerns how to make decisions on changes in technology and practice. It says that action should be taken to prevent harm, even if there is no conclusive scientific evidence that this harm will occur. The principle also calls for the active promotion of cleaner, safer technologies and comprehensive research to detect and reduce risks.
- *The nearness principle* concerns how to learn and communicate. It says that possibilities for personal experience and close contact among consumers, producers, researchers and other organic actors should be created and maintained. All relevant actors should be encouraged to take part in the development of organic agriculture. This participation should be facilitated by promoting transparency and cooperation in the production and communication processes in the organic food cycles.

In interdisciplinary studies in Denmark, the concepts of harmony, naturalness, freedom of choice and care emerged as central to the understanding of animal welfare in organic farming (Alrøe *et al.*, 2001). The systemic conception of agriculture, which emphasizes the interaction between human and nature, is found to be fundamental to an examination of animal welfare in organic farming. The central ecological notion of 'harmony' refers to the interplay between the farm and the environment (harmony with nature), among the different elements of the farm, and among the individual animals in the herd, and to the integrity of an organism. This systemic ('holistic') ecological view is considered to be characteristic for organic farming. For instance, the Danish Association for Organic Farming states that one of the aims for organic farming is 'to do everything possible to ensure that all living organisms ... from micro-organisms to plants and animals, become "allies".' (quoted by Alrøe *et al.*,

2001) 'Naturalness' concerns the conditions in the production system for expressing natural behaviour and for natural reproduction and growth. 'Freedom of choice' is an element in the expression of natural behaviour that concerns the individual and dynamic preferences of the animals. 'Care' is understood as the counterpart of naturalness, which expresses the special responsibility that humans have towards domestic animals (contrary to wild animals).

Lund and Röcklinsberg (2001) identify important values in the IFOAM principles and standards of organic farming. They recognize the difficulties in IFOAM never having explicitly identified the core values behind the principles, and in organic farming being a dynamic movement, with the IFOAM standards having developed over time (since 1980). Nevertheless, when organic farming is compared with conventional farming, several basic differences in the relation between human and nature have been formulated in the literature. Lund and Röcklinsberg distinguish three core values related to the understanding of the animal welfare conception in organic farming systems. The first two are:

- Aim for a holistic view, in contrast to a mechanistic and reductionistic approach to the understanding of nature and the way of living in and with nature.
- Aim for sustainability (social, economic and ecological).

Since these two are considered to motivate welfare only indirectly (inasmuch as welfare is important for sustainability and the functioning of the whole ecosystem) the need arises to extract yet another core value that can be used more directly as an argument for the far-reaching animal welfare aims that always have been present in organic farming. Lund and Röcklinsberg suggest that it can be based on the understanding of interdependence and deep respect for other living entities in nature, as expressed in the bio- and ecocentric frameworks. They formulate this third core value as:

- Respect for nature

Thus, farm animals are valued as fellow members of the biotic community and as having some kind of intrinsic value, independent of their instrumental value in agricultural production. Another consequence is that solutions to problems should be sought that mimic nature as much as possible.

The use of the agroecosystem as a concept for agriculture implies that organic farming is a form of culture in which the intrinsic value of nature is respected and the wisdom of nature is a source of inspiration, made concrete in the use of ecological principles, natural substances, etc. (Verhoog *et al.*, 2003). It implies that technical interferences in and control over nature are restrained in order to develop an ecologically based (thus not high-tech) sustainable relation between man and nature.

They conclude that elements of all the ethical frameworks are included in the 'ethos' (the system of norms and values) of organic farming. They therefore characterize the ethical framework of organic farming as 'holocentric'. Although we cannot really speak of an anthropocentric element, it cannot be denied that the agroecosystem is meant to feed human beings. The zoocentric element is clearly present because subjective feelings of individual animals are taken into account, because they are part of the characteristic nature of vertebrate animals. That the biocentric element is very important is clear from the statement that 'all living organisms should become allies' (Danish Association for Organic Farming, quoted by Alrøe *et al.*, 2001). In the integration of nature and culture, we can find the ecocentric attitude of the human being a participant in the larger ecosystem.

Verhoog *et al.* (2003) came across three different approaches within organic farming:

- The no-chemicals approach.
- The agroecological approach.
- The integrity approach.

The *no-chemicals approach* is prominent in official legal standards. It is a negative approach in the sense that organic agriculture is distinguished from conventional because no chemical pesticides, no artificial fertilizers and no GMOs are permitted. 'Artificial' inputs should be replaced with more 'natural' ones, for example biological pest control, organic manure or mechanical weed control. The approach often is the first step in the conversion process. This way of thinking is often very conventional.

The *agroecological approach* reflects the belief that organic farming should be more than the no-chemicals approach, and that a more fundamental change in the way of thinking of problems is needed. Contrary to conventional farming that tries to become independent of nature, exerting control by technology in an artificial environment, organic farming tends to integrate agricultural activities into nature (defined as an ecological system) and agricultural practice is modelled as a complex, sustainable and balanced agroecosystem. After conversion, farmers often start to think in a more ecological way, looking for the broader context of problems. Terms like *closed system, mineral cycles, self-regulation* and *biodiversity* are important keywords in this approach.

The *integrity approach* is a consequence of the integration of nature into the agrocultural system. Whereas in a dualistic view of the relation between culture and nature, nature is seen as a material object without value in itself, a non-dualistic view includes such a valuational aspect. An interview study by Verhoog *et al.* (2003) found that many organic farmers imply this valuational dimension when they speak about the 'natural'. The term 'natural' here refers to taking into account the characteristic nature of plants, animals, humans and ecosystems. It manifests itself, for

example, as respect for the integrity of life, of the agroecosystem, and of human needs (including social and economic integrity). This is the result of an inner process of involvement with natural entities' ways of being. Farmers begin to realize that the way they see problems and solutions is connected with their personal attitude and relationship with either the soil or the cultivated plants or animals. They experience that the farming system is more than merely a complex ecological mechanism and more than the sum of the parts. This feeling is also present in relation to the plants or animals they take care of. They develop a respect for the wholeness, harmony or identity of a living entity based on a personal involvement with the life of plants or animals.

Animal Welfare in an Organic Context

The concept of animal welfare refers to one or several aspects of the animal's quality of life. It thus makes sense to make the choice of animal welfare definition reflect the basic values in the farming system in which it is to be used.

Lund (2000) suggests the natural behaviour approach as the focus of the animal welfare concept in the organic context. She also asks if this approach is enough, or if additional aspects should be included in order to satisfy the demand for a holistic view that is basic to organic farming.

Lund and Röcklinsberg (2001) elaborate this question further. They state that the animal welfare concept should mirror the values in the agricultural system in which it is to be used. They conclude that the animal welfare concept should be broad and include multiple components, and suggest that animal welfare should be considered on several systemic levels, in accordance with the systemic view favoured by proponents of organic agriculture. Natural behaviour (understood as species-specific behaviour, feed, and environment) is seen as a central feature on the individual level and on the level of the agroecosystem. This should be interpreted so that management and environment must offer functional feedback systems, corresponding to those present in nature and to the animals' needs. On the next level, respecting animal integrity becomes an important issue. On higher systemic levels, individual welfare can be related to the herd or farm, where the focus is on breeding strategies and management systems. For a complete assessment, higher levels also need to be considered.

The conception of animal welfare formulated by these authors is not basically different from the view presented by Alrøe *et al.* (2001):

- Animal welfare depends on the greatest possible accord between the innate nature of the animal and the conditions provided. When

problems occur, solutions should primarily be sought at the systemic level (adapting the system to the animals instead of adapting the animals to the system). This is a basic principle underlying organic livestock health plans, as discussed in Chapter 12.

- The animal's species-specific (characteristic) nature and integrity should be respected in breeding and reproduction as well as in operations on individual animals.
- The animal's quality of life increases with a wider opportunity for the expression of natural behaviour. This goes beyond the satisfaction of the animal's physiological and behavioural needs, and beyond negative definitions of animal welfare as the absence of suffering.
- The consequences of the (ecological) natural living approach may conflict with the traditional emphasis on absence of suffering (prevention of aggressive behaviour, reduced risks of illness, etc.) and with other organic goals, such as reduced pollution of the environment by grazing herds. Therefore the emphasis on natural behaviour may put greater demands on management and human care.
- The organic food system can be sustained only if there is a shared perception of animal welfare among consumers, farmers and experts. The popular understanding of animal welfare can be taken into account by including experiential forms of assessment besides scientific assessments. (Various approaches to assessment of animal welfare are compared in Chapter 9.) Such forms of assessment are closer to the immediate perception of animal welfare made by ordinary people.

Verhoog *et al.* (2003) also underline the importance of natural behaviour within the context of the agroecosystem, and the concept of animal integrity related to the animal's species-specific nature. They conclude that the value of naturalness can be an important guiding value for the future of organic farming only when a broad conception of the natural is taken, including the no-chemicals approach, the agroecological approach and the integrity approach. With respect to animal welfare, this means that it is not enough that the animals get organic feed and can fulfil their needs in a minimal fashion: they should also be able to express their natural behaviour in a balanced agroecosystem. Finally, the harmony and integrity of the whole ecosystem, with the plants, animals and human beings living in it, should be taken into account. Together they are the 'ethos' of organic farming, not yet to be interpreted juridically as strict standards, but ethically, as a source of inspiration and self-reflection. It should be an ideal that is continually reflected upon within the organic movement. How it is to be interpreted within a specific situation always has to be a free moral choice for the individual farmer, but the farmer must also be willing to defend it in a dialogue with others in the organic movement.

Dilemmas

The great challenge for organic farming is how to integrate the elements of the various ethical frameworks into a balanced holocentric framework. Conflicts may arise between the different values in organic farming (Alrøe *et al.*, 2001; Lund and Röcklinsberg, 2001); the NAHWOA Recommendations begin with a call 'to formulate a philosophical definition and basis for animal welfare' to help resolve such conflicts.

Some examples may be helpful as an illustration:

The pig in the Dehesa system

The so-called 'Dehesa', an extensive agroforestry (oaks) and pasture livestock system including free-range Iberian pigs, is a sustainable agroecosystem existing since Roman times on the Iberian peninsula (Trujillo and Mata, 2000). However, to protect the soil and the trees, the pigs' noses are ringed. (For further details regarding the Dehesa system, see Chapter 3.) This is a case of conflicting sets of values: on the one hand the welfare (in the sense that the pig is being prevented from performing a basic behaviour) and the integrity of the pig, and on the other hand the conservation of a sustainable agroecosystem and preservation of the cultural values inherent in an ancient agricultural system.

For an ethical evaluation, it is important to consider alternative solutions (for a discussion of the effects of nose ringing, see Chapter 8). The actual decision can then be made, either by evaluating the consequences of each alternative, or by establishing a priority (ranking) of ethical principles and applying them to the alternatives. In this particular case, one could consider nose ringing to be the best solution, given the special ecological and historical situation. The argument could be that ecological and cultural values should be ranked higher than the interests of the pig, especially since the effect of nose ringing on animal welfare is debated.

An animal rights activist would probably decide that respect for the integrity of the individual animal must have the highest priority. This person would then rank the ethical principles differently (i.e. the principle of respecting 'animal integrity' would rank higher than those of respecting 'culture' or 'ecology'). The conclusion would then be that a system such as the Dehesa must be changed in favour of the pigs, or that pigs should not be kept there at all.

Castration of fattening bulls

The organic standards require that animals should be put on pasture in summer, but it is extremely difficult to keep sexually mature bulls fenced

if there are cows in oestrus nearby. Many organic farmers therefore prefer to keep such bulls in small, well-fenced outdoor enclosures rather than letting them graze large areas. Castration would thus allow the bulls a more natural behaviour and in this sense a better quality of life, and would also increase the safety of the stockperson. This is an example of a conflict between the principles of allowing the animal a more natural life (well, at least certain aspects of it) and protecting the safety of the stockperson versus animal integrity.

Free-range poultry

Organic poultry are required to have access to outdoor runs. This is a result of the demand for naturalness, aiming to allow the animals a more natural behaviour. It also involves other values related to the ecological and cultural role of farm animals in the landscape and on the farm. However, the demand for natural behaviour may conflict with health and welfare aims. For example, the effects of an outbreak of cannibalism will be much more severe in free housing systems, where many more birds will be exposed, than in a cage system. If the most important principle is to minimize suffering (a common utilitarian view that is expressed in the subjective experience definition of animal welfare) or maximize health (as expressed in the biological functioning definition), keeping the hens outside probably would not be required. But the leading principle for organic farming, expressed in the standards, is 'natural behaviour'. Free range poultry will also be exposed to parasites, and in some cases to predators, although the risk of cannibalism would be reduced (see Chapter 12 for a discussion of this point, and Chapter 8 for a discussion of the related dilemma of beak trimming as a way of dealing with feather pecking and cannibalism). Outdoor keeping may also conflict with environmental concerns, since indoor keeping causes less damage to the soil and less leakage of nutrients. This is an example of the inherent conflict between the ecocentric and biocentric (or zoocentric) approaches, where the former give priority to system needs (i.e. conservation of the environment) while the latter two focus on the needs of individuals. The conflict increases when 'natural' is interpreted as 'wild' (as little human interference as possible, or even none), rather than as having respect for the species-specific nature of the animals. Domestic animals also have a species-specific nature. Organic agriculture wants to integrate nature into the agricultural system, not to separate the two.

It is clear that here again we need a delicate balancing of different values and ethical principles. The farmer has a big responsibility (care and management), but so has the consumer of the products. An acceptable solution may imply smaller herd size both to give the farmer more time to care for the animals and for environmental reasons; the resulting economic costs must be shared.

Future Challenges

The animal welfare conception frames how organic animal husbandry should be organized, but it may also challenge other central ideas and values in the organic movement, as illustrated by the dilemmas presented in this chapter. This is where we need ethics: normative ethics can help us rank values and give guidelines for our actions. In order to make progress in any area of organic farming, but perhaps particularly in animal husbandry, it is important to continue to deepen the discussion regarding what values organic farming should be based on and should promote. The early organic movement especially was characterized by such discussions (Christensen, 1998), but on the professional academic level this has begun only recently. It is valuable for philosophers to engage in the debate. Philosophers can make important contributions by clarifying and systematizing the arguments. They also can question supposedly self-evident principles and beliefs, pointing out the presuppositions underlying them. However, it is as crucial for the philosophers to interact with the organic farmers as it is for the organic farmers to involve philosophers in these discussions.

One aim of this chapter has thus been to make the organic movement aware of values involved in organic farming and animal welfare, allowing choices to be made more consciously. The value-laden and moral aspects of animal welfare need to be considered, and they cannot be treated independently from the general values of organic farming. One may conclude that there is a basic difference in value orientation between the organic movement and conventional agriculture (however, this alternative orientation may not be shared by all organic farmers!). Thus, the organic answer to the question raised in the introduction – 'what is the essence of a good pig life?' – focuses on natural behaviour. In turn, this is mirrored in the organic understanding of the animal welfare concept. Similarly, human obligations to farmed animals become different if they are based on a fundamental respect for the wholeness, harmony or identity of the animal as a living creature rather than on purely economic interests.

Another aim has been to spotlight the fact that animal welfare is an integral part of organic farming. It can be deduced from organic values. The organic movement is constantly developing, which poses challenges. The growth in consumer demand and the establishment in several countries of subsidies for organic production have created economic incentives for conversion. New categories of farmers and traders have been influenced to take an interest in organic production, although they might not be as idealistic or accepting of the same values as farmers in the early organic movement; this development has come in for considerable criticism (Lund and Röcklinsberg, 2001). Organic farming is facing new challenges, with many different competing interests, each demanding

attention and priority when setting standards. If organic animal husbandry is to grow further, conflicts with other areas of interest as well as within livestock production must be solved in a way that is transparent and makes sense to farmers as well as consumers. Here the ethical discussions have an important task. Hopefully, the clarification of values can contribute to intelligent and practical solutions to emerging problems, such as by shifting the focus to reconciling conflicting interests on a systems level rather than only on the individual level. A broader approach to problems will also make a wider range of solutions available. Perhaps the organic approach to animal welfare can also shed new light on the animal welfare concept as such. The values of animal welfare pose a challenge to organic farming and the values of organic farming pose a challenge to the discussion of animal welfare.

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