



## **PUBLICATIONS**

### **Animal ethics and the "New Perception" of animal agriculture**

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#### **The "New Perception" of animal agriculture**

During the Second World War, both the Allied and Axis powers published photographs showing wholesome, smiling citizens working in weapons factories. The photographs were designed to portray the weapons industry as a valuable part of society where good people worked happily for the benefit of their countries. At the time of the Vietnam War, a mere 20 to 30 years later, the weapons industry was commonly portrayed in an entirely different light. The popular images of that time focused not on the human endeavour that went into making weapons, but on the suffering and destruction that weapons caused; and instead of human workers being seen as the agents in the manufacture of weapons, the industry was portrayed as a monstrous corporate system -- the "military-industrial complex" -- which prospered by causing suffering and death.

The resulting change in public attitude was arguably much greater than any corresponding change in reality. In reality the creation of weapons involves both individual workers and corporate owners, both human endeavour and human suffering. The shift in attitude over that 20- to 30-year period occurred because a complex reality was portrayed using simple images, and those images were chosen at one time to emphasize positive elements, and at another time to emphasize the negative.

I think that in many countries, we are seeing a similar shift in public attitudes toward animal agriculture. This is a shift away from the traditional, positive view of animal agriculture, toward a more negative and cynical view. The causes of the change presumably include the increased use of industrial technology in animal production, the trend for agrarian values to be replaced by utilitarian values among animal producers (Thompson, 1998), and the decline in the proportion of the public that has first-hand contact with farmers. However, the change in attitude has been greatly fostered by a body of writing that I will call the "New Perception" of animal agriculture. This New Perception involves several components.

First, whereas the traditional view saw animal agriculture as caring for animals and causing animals to have happy lives, the New Perception portrays agriculture as exploiting animals and causing them to have miserable lives. For example, in *Vegan: The New Ethics of Eating*, Erik Marcus (1998, p. 89) states:

"With the decline of the family farm, animals that used to be cared for with kindness and a general regard for their welfare now live and die in unconscionable conditions."

Second, the traditional view portrayed animal agriculture as being in the hands of individuals or families; in the New Perception, animal agriculture is seen as controlled by corporations. For example the book *Animal Factories* (Mason and Singer, 1980) includes a chapter called, "Factory agribusiness: The farmer as victim, or who's making the real money?" The chapter depicts the individual producer as a puppet controlled by corporate interests, thus down-playing the fact that much of animal agriculture remains in individual hands.

Third, in the traditional view animal production decisions were seen as driven by ethical values based on the traditional ethics of the farming world. In the New Perception, these decisions are depicted as driven by profit, based on the bottom-line economics of the corporate world. Thus John Robbins (1987), in the influential vegetarian book, *Diet for a New America*, writes:

"The problem is that the behemoths of modern agribusiness seek profit without reference to any ethical sensitivity to the animals in their keeping."

Fourth, in the traditional view animal agriculture was seen as contributing to food abundance by producing food from pasture, rangeland, waste food and surplus grain that would not otherwise be used for human nutrition. In the New Perception, animal agriculture is seen as contributing to food scarcity by using large quantities of grains and oil-seeds to produce luxury animal products for the well-fed, instead of meeting the basic needs of people in the hungry countries. For example, philosopher Bart Gruzalski (1983), developing an argument by Frances Moore Lappé (1971), wrote:

"Many of the peoples of the world are suffering and dying from protein deficiencies. In the United States during 1968, we fed to livestock ... 20 million tons of plant protein that could have been consumed by humans. Although the livestock provided 2 million tons of protein, the 18 million tons of protein "wasted" by this process would have removed 90 percent of the yearly world protein deficit."

Fifth, in the traditional view, animal agriculture was seen as contributing to human health by providing dietary protein of high quality. In the New Perception, animal agriculture is depicted as contributing to human illness through bacterial contamination of animal products, cross-species transfer of disease, and by encouraging people to eat large amounts of fat, thus increasing their risk of heart disease, stroke, and related diseases. In *Eating with Conscience: The Bioethics of Food*, Michael Fox (1997, p. 124) suggests other adverse effects:

"It is highly probable that the biochemistry of stressed animals, especially the steroid stress hormones present in their flesh, has an effect on the behavior and metabolism of consumers. Animals who have been subjected to violence and terror may pass on the biochemical products of these psychosomatic reactions in their various bodily parts, which people consume. Considering the tons of adulterated flesh consumed in a lifetime, the psychological effects may well be cumulative and may profoundly influence mood and behavior, especially in the realms of violence, anxiety disorders, and sexual and social development."

Finally, in the traditional view animal agriculture was seen as good for the environment because animal waste provided a natural and renewable way of fertilizing the land. The New Perception portrays animal agriculture as bad for the environment because livestock operations can cause air and water pollution, release methane into the atmosphere, require fossil fuels to produce and transport livestock feed, and may encourage destruction of natural ecosystems to make way for animal production.

Of course the reality of animal agriculture is far more complex than either of these simple representations admits. Animal agriculture involves both care and exploitation of animals; there is both individual control and corporate control; environmental effects are both positive and negative; and so on. The two perceptions involve highly simplified depictions of animal agriculture, one unduly positive, the other unduly negative. And with these simple depictions come simplistic moral solutions. The New Perception critics generally call for the total disappearance of animal agriculture, urging that a switch to vegetarianism is the only morally appropriate option. Perhaps because the critics' proposal is so drastic, defenders of animal agriculture often just deny the validity of the criticisms, and respond by mounting public relations campaigns rather attempting to address the concerns.

### **Analysis or advocacy?**

In reality, a broad-based ethical questioning of animal agriculture should be viewed as a welcome and important development. The industrialized countries have seen radical changes in animal agriculture during the last 50 years, with complex and profound effects on animal welfare, the environment, human nutrition, and rural societies. In less developed countries, although agricultural methods remain more traditional, their use has been intensified in order to feed a growing human population, and the resulting

changes have been very significant (Durning and Brough, 1991). The issues are of paramount importance, and a careful evaluation is long overdue. Moreover, the issues are technically complex and ethically difficult, and it is appropriate that scientists and academic philosophers should give them serious attention. Unfortunately, however, the level of analysis that some scientists and academics have brought to the debate has been disappointing.

In some cases scientific or academic commentators simply appear to suspend any reasonable criteria of evidence when writing for the public about animal agriculture. An example is the paragraph by Fox (1997), quoted above, stating that meat from stressed animals, and thus "adulterated" by steroid stress hormones and other biochemical products of stress, "may profoundly influence" human violence, anxiety disorders, and behavioural development. This claim, if true, would rank as a finding of great importance with profound implications for diet and food processing. However, Fox offers no evidence to support it except to propose that "anecdotal evidence suggests that people who do not eat meat have a calmer, more easy-going disposition" (p. 125), together with one medical study linking hostile acts to meat eating and serum triglycerides (not steroid hormones) in human subjects.

In other cases, academics writing about animal agriculture have ignored research that would tend to refute their conclusions. In discussing farrowing crates, for example, Singer (1990) correctly notes that the ostensible purpose of the device is to control the sow's movements and prevent her from crushing piglets; "but," Singer continues, "this could also be achieved by providing her with more natural conditions" (p. 126). When that statement was made, there was a substantial body of research on the incidence of piglet crushing in farrowing crates compared to less restrictive forms of housing (reviewed by English and Wilkinson, 1982; Fraser, 1990; Edwards and Fraser, 1997). That research, while not entirely unanimous, generally indicated that less restrictive housing leads to a higher incidence of crushing than farrowing crates. In fact, there have been numerous attempts to devise less restrictive forms of housing, some of them motivated specifically to improve sow welfare (Phillips and Fraser, 1993), but these have generally failed to equal the farrowing crate in piglet protection under commercial conditions (Edwards and Fraser, 1997).

Elsewhere, critics have offered superficial analyses of complex issues. Gruzalski (1983), in the quote given above, implied that eliminating animal production in the United States could "remove" a large portion of dietary protein deficiency among humans by freeing up feedstuffs currently fed to animals. The logic is superficially appealing, but Gruzalski fails to point out that it rests on several important and dubious assumptions. First, the argument assumes that the "world protein deficit" could be solved by increasing available supplies, whereas some analysts attribute undernutrition problems more to poverty and an inability of disadvantaged people to buy food (Sen, 1982). Second, Gruzalski assumes that if the United States increased its surplus of plant-based foods through a cessation of livestock production, then an adequate distribution system could be found to bring the additional surplus to those in need. Even more fundamentally, he implies that it would be desirable to solve problems of hunger in the less developed nations by infusing large amounts of food from the United States, thus making the hungry nations food-dependent on the west. All of these are highly debatable points (eg, Dower, 1996), and a simplistic analysis that fails to alert readers to these complications does no justice to the issue.

Perhaps most disappointing are cases where academics report facts in a selective and misleading way. Consider how Singer reports the development of a mechanical sow by J.F. Hurnik and co-workers. Singer (1990, p. 125) begins the account by noting that most "cage pig rearers" leave piglets with the sow "for at least a week" before putting them in cages, "but," Singer continues, "Dr. J. Frank Hurnick (sic), a Canadian agricultural researcher, has recently developed a mechanical sow." Singer then reports an unnamed commentator who proposed that Hurnik's device could be used to allow breeders to increase litter size, and Singer concludes by stating that "researchers foresee highly automated systems of pig production producing as many as forty-five pigs per sow per year, instead of the sixteen that have been the average." (p. 125) In this description, Singer does not point out that the mechanical sow was developed specifically to raise runts and other piglets that might die if left with the mother (Lewis et al., 1982, p. 975), and that it was not designed (and would not be economical) for use on a large scale to replace natural rearing in cases where the sow could raise the piglets herself. Hence, it does not provide a feasible means of earlier weaning in cage systems. Nor does Singer point out that the intent of the designers, clearly stated in their report, was to permit piglets to obtain milk by their normal suckling behaviour, and thus raise at-risk animals as naturally as possible and "with a higher standard of well-being" than other, existing artificial rearing devices (Lewis et al., 1982, p. 977). By omitting these details, and by combining statements about the mechanical sow with unrelated or marginally related topics such

as cage rearing systems, Singer makes Hurnik's work seem part of a Orwellian plot for the exploitation of animals, rather than the contribution to animal welfare that it was explicitly intended to be.

Some of the academics and scientists defending animal agriculture have engaged in much the same practices, sometimes simply denying ethical issues that would seem obvious. For example, a significant animal welfare concern among laying hens is the practice of forced moulting, whereby hens are kept without food for several days until they stop laying eggs (Rollin, 1995). Objections to the practice are so great that the United Kingdom code of practice declares that "in no circumstances" should forced moulting be practised (Anonymous, 1988, p. 10). In a college textbook of poultry production, North and Bell (1990) describe how forced moulting is practised in the United States. They note that although 4 days without food is often sufficient to end the lay cycle, "longer fasts of up to 14 days will usually give superior results". They caution, however, that in such cases "extreme care must be taken to monitor body weight losses and mortality" (p. 434). North and Bell also note that water is sometimes withheld for 1 or 2 days, although this involves "certain risks" (p. 434) in hot weather. Despite the obvious welfare problems involved (hunger and weight loss to the point of ceasing all reproduction), North and Bell's discussion entitled "Animal welfare" glosses over the issue, claiming only that forced moulting "results in a rejuvenated flock that will live a longer productive life" (p. 878), and that criticisms of such practices involve "misinterpretation" and "unfounded claims".

In other cases, scientists have invoked the authority of science more directly to defend industry practices. The debate about farm animal welfare arose because of ethical concerns extant in society (reviewed by Fraser et al., 1997). These include: that animals should not suffer unduly (Singer, 1990); that they should not be deprived of all pleasure in life (Harrison, 1964); that they should thrive and be healthy (Sainsbury, 1986); and that they should be allowed to lead lives that correspond to their "nature" (Rollin, 1995). At its best, animal welfare research uses the tools of the biological sciences to assess whether these concerns are being met, and to identify and rectify situations where they are not (eg, Dawkins, 1980; Broom and Johnson, 1993). However, some scientists have advanced more restricted conceptions of animal welfare. For instance, McGlone (1993) considered that "an animal is in a state of poor welfare only when physiological systems are disturbed to the point that survival or reproduction are impaired" (p. 28). With welfare reconceptualized in this way, researchers could claim the authority of science to declare that animal welfare is not adversely affected in controversial situations (see Halverson, 1998).

The public has perhaps grown accustomed to journalists, politicians, advertisers, and lobbyists promulgating black-and-white portrayals of complex issues; and the public may then look to its academics and scientists for a more judicious analysis. In the ethical debate about animal agriculture, however, academics and scientists have played a key role in creating the polarized and misleading representations, instead of providing the genuine analysis and research which the public reasonably expects.

### **An ethical evaluation of animal agriculture**

The New Perception of animal agriculture raises many concerns that are both legitimate and important. How should we raise animals in order to provide them with an acceptable quality of life? What role should animal products play in healthy human diets? What agricultural practices should we adopt or discard in order to preserve the environment? How can animal agriculture alleviate, rather than worsen, problems of world hunger? Is the consumption of meat in the wealthy nations leading to environmental destruction elsewhere in the world?

To answer these questions will require both technical analysis and ethical reflection. Technical knowledge by itself will not provide the answers because the issues are fundamentally ethical in nature, and the technical investigation needs to flow from, and be focused on, the ethical questions. But ethical reasoning by itself will not suffice because the questions demand a high degree of technical understanding. Instead, we need scientists and ethicists to combine forces in a genuine ethical analysis of animal agriculture.

Fortunately, philosophers with substantial understanding of agriculture are now playing a more prominent role in discussions of animal welfare and agricultural ethics (eg, Tannenbaum, 1991; Rollin, 1993, 1995; Thompson et al., 1994; Thompson, 1998). For example, Rollin considers that the "new ethic for animals" that he sees emerging in Western society requires not that animal agriculture disappear, but that farm

animals should be raised in a manner that respects their "nature" (Rollin, 1993, 1995). Moreover, Rollin recognizes the need for biological scientists to clarify the respective "natures" of the farm animals in order to address the ethical concerns. At the same time, scientists are showing greater recognition that animal welfare is an inherently ethical concept (Hurnik, 1993; Mason and Mendl, 1993; Fraser 1995), and that scientists are not free to simply redefine animal welfare as if it were a purely technical term. Thus, the past few years have seen both scientists and philosophers making efforts to conceptualize animal welfare in a way that reflects underlying ethical concerns so that animal welfare research will more adequately address them (eg, Tannenbaum, 1991; Sande and Simonsen, 1992; Fraser, 1993; Stafleu et al., 1996; Fraser et al., 1997; Mench, 1998).

Similar developments are occurring in other areas. Philosophers such as Thompson (1992, 1998), Dower (1996) and others are bringing careful, knowledgeable analysis to issues of agricultural policy and world hunger. Environmental scientists are also helping to correct the caricature of animal agriculture as entirely beneficial or entirely harmful to the environment. For example, Mearns (1997a,b) has proposed a framework for identifying positive environmental impacts of animal agriculture where they occur, and has used this as a basis for environment-enhancing policy.

Although these developments are encouraging, there are daunting obstacles as well. New Perception writers have often depicted animal agriculture in such black terms that only its complete abolition would seem an acceptable outcome. Regan (1983) explicitly calls not for the reform of commercial animal agriculture but for its complete dissolution. Singer (1990), although espousing a moral system that balances good outcomes against bad, shows little enthusiasm for discriminating better and worse forms of animal husbandry, settling instead for blanket condemnations such as, "the fact is that the meat available from butchers and supermarkets comes from animals who were not treated with any real consideration at all while being reared" (p. 160). These and many other New Perception critics depict vegetarianism as the only morally acceptable option, and their horrendous portrayals of animal agriculture may be so deeply seared into the minds of readers that any balanced analysis and attempt at reform would be dismissed as moral back-sliding.

Some of the defenders of animal agriculture have perhaps created an equally hostile climate for real analysis and reform. Halverson (1998) argues, for example, that some scientists and industry leaders have portrayed concerns about animal welfare as "insubstantial, dangerous, and based on emotion and ignorance" to the point that both producers and regulators see no need for analysis and reform.

Thus, scientists and ethicists who attempt a genuine evaluation of animal agriculture may face skepticism from the public and indifference or hostility from government and the agricultural sector. These hurdles may be overcome in time. The first step, however, must be for scientists and academics to take back their traditional role of providing genuine knowledge and analysis in support of better public decisions.

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