

Integration of Animal Welfare Philosophy

M. Kathleen Hixson and John S. Avens
Introduction

Agricultural animal welfare is a very controversial issue, and although it can generate lively discussion in the classroom, it is often avoided, minimized in significance or presented from a biased viewpoint. People on both sides of the controversy are misinformed or incompletely informed about animal production management and/or animal welfare concerns. Very few animal science instructors are unbiased about the animal welfare issue, or are adequately educated in philosophical principles underlying the study of animal welfare and rights. Likewise, very few philosophers or professional animal protectionists are unbiased about the animal welfare issue, or are adequately educated in animal science or agricultural animal production business and management.

We cannot afford to allow animal science students to hide from or simply not be concerned with the animal welfare issue since they will have to deal with it throughout their careers in the animal production industry. Now, during their pre-professional years in college, is the time and place for animal science students to critically and openly examine the issue of animal welfare, utilizing as many appropriate references as possible (1, 2, 3, 4).

The objective of this project was to openly discuss the subject of animal rights and welfare related to poultry production management practices in an introductory poultry science and production course. The students were encouraged to confront the animal welfare issue with an unbiased, open mind as they were exposed to the facts and concerns associated with the issue. They were encouraged to start formulating their own educated opinions, which they would take with them and further develop during their professional careers.

An animal welfare professional and graduate student in philosophy concentrating in animal rights and ethics served as resource person in an introductory poultry science and production course taught by an animal sciences professor in the Department of Animal Sciences at Colorado State University. The resource person's prior education in zoology enhanced her understanding of avian biology related to poultry production. This interdisciplinary teaching effort in the area of animal science and philosophy resulted in a

Hixson is an animal welfare specialist and graduate student in the Department of Philosophy at Colorado State University, specializing in the area of animal rights and ethics. Avens is a professor of animal sciences in the Department of Animal Sciences at Colorado State University, Fort Collins, CO 80523

mutually beneficial classroom learning experience for everyone involved. A similar interdisciplinary teaching approach may prove to enhance the teaching-learning experience in other animal science courses at other colleges and universities.

Methods

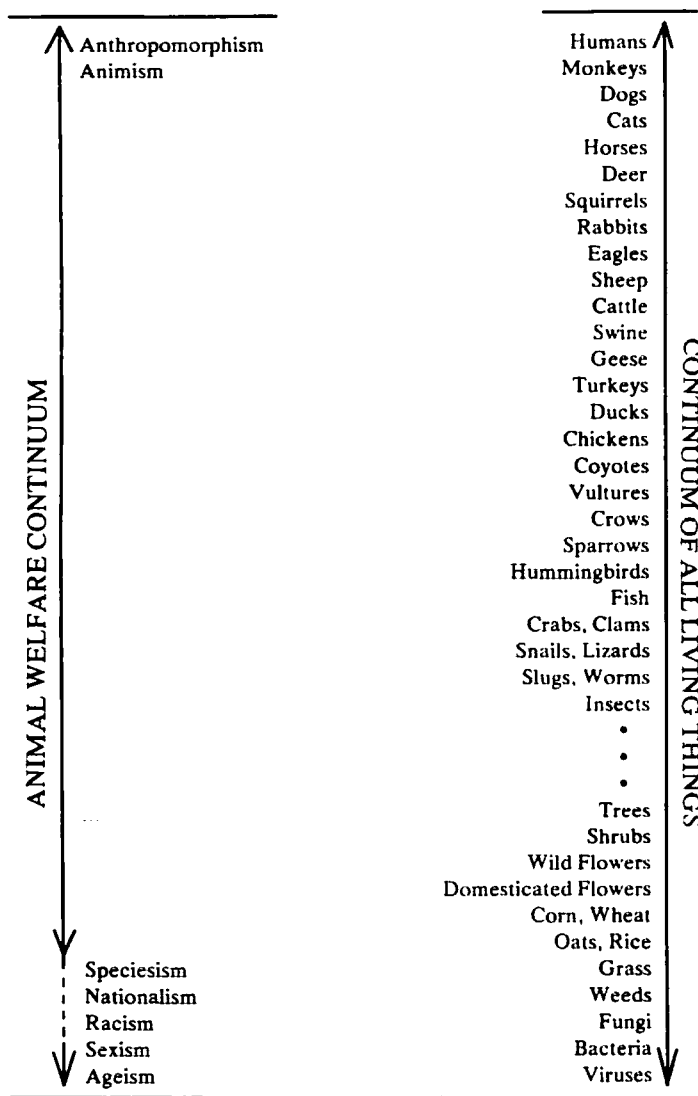
The animal welfare resource expert was present in class throughout the entire course, which allowed her to learn the science and business principles on which poultry production systems and management are based. This increased her credibility in her own profession, and allowed her to react to class topics and interact with the students from a more knowledgeable base. Humane aspects of poultry science and production from a philosophical perspective were included in class on a continuing basis during three class meetings per week, providing continuity and interdisciplinary integration which would not have been achieved by a guest lecturer.

The resource expert presented two lecture classes on the issue of animal welfare. Her first presentation early in the course involved ethical issues related to animals in general, where she introduced her concerns as a professional animal protectionist. Throughout the course she frequently contributed information in class relating the animal protection perspective to the topic being presented. She consulted individually with students having specific concerns (1) during laboratory classes, (2) before and after lecture classes and (3) during their chicken growing projects. She participated actively in all laboratory activities, working with students as an instructor.

A structured discussion on animal welfare was scheduled at the end of the course to assure that all aspects of poultry production related to the animal welfare issue had been confronted by the students. The concept of an animal welfare continuum (Figure 1) from anthropomorphism and animism on one end to speciesism of the other end was introduced by the instructor to stimulate discussion from the class (2). This continuum was then placed parallel to a second continuum of all living things (Figure 1) from humans on one end to viruses on the other end. Students were asked where they placed themselves on each continuum relative to the following questions:

1. Which living things are human justified in killing for human benefit (survival, convenience, pleasure)?
2. Which living things deserve human concern for their welfare?
3. What are the relevant differences between human and non-human beings?
4. Which living things feel pain?
5. Which living things have concern for their own welfare?

Figure 1. Continua related to animal welfare and life forms



More specific animal welfare questions related to poultry production were used to stimulate class response:

1. How many commercial laying hens per standard cage would you consider acceptable (0, 1, 2, 3, 4, 5, 6), and how would this concentration effect egg production per building and per bird?
2. Does maximum biological efficiency of an individual laying hen always result in maximum economic efficiency of an egg production unit?
3. Do most poultry producers have any, other than economic, concern for the overall welfare of each bird?
4. Should we impose a human value system on poultry and other agricultural animals?
5. Is the overall welfare of small barnyard flocks of chickens better provided for than large commercial flocks?

The animal welfare resource person then responded to the concept of parallel continua to further stimulate student reaction. She discussed specific agricultural animal production practices and explained why she would professionally consider various aspects inhumane. Most of these inhumane concerns centered around deprivation of the birds'

abilities to exercise their inherent natures; i.e. flap their wings, take dust baths, groom or completely express their "chickenness," and thus fulfill their destined telos to be chickens. Telos, as Aristotle defined it, is a being's nature and function, both evolutionarily determined and genetically imprinted. The students were then encouraged to actively enter into discussion by sharing their experiences and perspectives on the issues.

At conclusion of the entire course all students were asked to anonymously complete an evaluation form soliciting their written responses to specific questions concerning treatment of the animal welfare issue as an integral part of the course (Table 1).

Results and Discussion

Suggestions and viewpoints of the animal welfare resource expert throughout the entire course were readily accepted for consideration by the students. Students welcomed and benefitted from this rare opportunity to meet "the enemy" on a daily basis and disagree or agree in productive confrontation in a nonthreatening atmosphere. They learned from this resource person and respected her credibility because she was always in class and was willing to learn from and listen to both them and the instructor.

The students' genuine desire to more fully investigate the concept of animal welfare was evident. Since it was relatively new and innovative topic of concern for most students, they seemed to receive both the information and the resource person with interest and sincerity, although with some amount of caution. By having this resource person present on a daily basis, it was acceptable for them to express their concern for and sensitivity to specific laboratory activities, as they were encouraged to affirm their feelings. Most students seemed genuinely interested in both learning about problems of agricultural animal welfare and in humanely caring for the broiler chickens they were growing as a class project.

The resource person had several animal welfare concerns related to both the lecture and laboratory portions of the course. The use of an excessive number of freshly-killed birds for the anatomy lab could possibly have decreased the students' sensitivity for the broiler chicken they raised for their class project and for other animal life as well. In the embryology lab, she was concerned about the relative amount of fetal suffering involved for later stages of embryonic development after the nervous system became functional and recommended not examining live embryos in later stages of development. Also of major concern to the resource person was the broiler slaughtering lab, which was an essential harvesting step of the class project to incubate, hatch, grow, slaughter, cook and consume an agricultural animal. Since the birds were produced to be "harvested" as an agricultural "crop," she was concerned that without proper supervision by knowledgeable and sensitive instructors, students may not adequately consider the birds' welfare during this final stage of life.

The discussion on animal welfare related to poultry production at the conclusion of the course was

very well received by the class. Many students asked questions and/or contributed meaningfully to the discussion. Since some of them came from direct experience in large animal production, they offered valuable perspectives, while remaining very open-minded to possible modifications they could employ. The questions and comments of the entire class basically centered around:

1. The use of animals and alternatives for human food.
2. Humane and practical care for agricultural animals.
3. The human and nonhuman animal overpopulation crisis and problems related to both.

Other discussion centered around the animal welfare continuum related to the continuum of living things (Figure 1) and posed questions focusing on these continua.

1. Why is it inhumane to keep chickens and other agricultural animals confined?
2. Are you (the animal welfare resource person) a vegetarian?
3. How would you, as a professional animal protectionist, solve the world food problem?

Other discussion from students focused on the use of alternative types of human food, i.e., their availability and/or nutritional value, and what exactly constitutes humane care for agricultural animals.

Of the 17 students in the class answering the animal welfare course evaluation questions (Table 1), only three (16 percent) responded negatively to appropriate exposure given to agricultural animal welfare in the course. The negative responses consisted of 2 students reporting that the animal welfare coverage was "excessive" and "one lecture period would have been adequate," to a third student actually admitting that s/he was "made to feel guilty" everytime s/he "did something." Positive responses (84 percent) focused mainly on the issue's being very appropriate, adequately presented and well-received.

The second evaluation question (Table 1) solicited only three (16 percent) negative responses concerning enhancement of course to have an animal welfare resource person present and available throughout the entire semester to relate collectively and individually on poultry welfare issues. These negative responses included one which cited the animal welfare resource person as not helpful at all. Two students felt animal welfare input would have been more helpful "once or twice" or "at intervals throughout the semester" instead of the entire semester. The remaining 84 percent positive responses focused on student feelings that the course was enhanced by the presence of the resource person throughout the entire semester. The majority of students felt this was a necessary topic for discussion and consideration, and an issue that wouldn't go away if simply not confronted.

Of 17 responses evaluating the animal welfare expert's effectiveness as a resource person in the course (Table 1), only two students (12 percent) were less than completely positive. The negative responses ranged

Table 1. Treatment of Animal Welfare Issue as an Integral Part of a Poultry Science and Production Course; Student Evaluation Responses.

Questions	Student responses	
	% Positive ¹	% Negative ¹
1. Appropriate exposure to animal welfare	84	16
2. Resource person present enhanced course	84	16
3. Effectiveness of resource person	100	12
4. Effectiveness of course instructor	100	12
5. Opinions on animal welfare related to poultry science and production	59	41

¹ For question 5, "positive" indicates percent of students supporting more animal welfare changes in poultry production and processing management; "negative" indicates percent of students not supporting more animal welfare changes.

from one student's comment that the resource expert was a "nice person, but not very effective" to "animal welfare should be considered not relevant." The remaining 88 percent responses consisted of 5 student praising the resource expert specifically for her ability to "see and listen to both sides of the story" and 12 students lauding her "generous sharing of resource materials" and her "really caring for animals."

Nearly all of the student responses were positive concerning effectiveness of the instructor in teaching about poultry science and production in relation to the animal welfare issue (Table 1), although two students (12 percent) responded somewhat negatively, in addition to their positive responses. The positive responses consisted of one student's comment that the instructor's teaching enabled the class not only to "learn about poultry," but also to "think about poultry." The instructor's ability to "address both sides of the issue" was praised, and a further comment was made that he "encouraged exchange of ideas" and "almost insisted on debate and involvement by the students" on the animal welfare issue.

Student opinions on animal welfare related to poultry science and production varied greatly (Table 1). Seven students (41 percent) commented that no animal welfare management changes were necessary in poultry science and production or were not feasible. Ten responses (59 percent) were very adamant in regard to incorporating the issue of agricultural animal welfare into poultry science and production.

In this one semester introductory poultry science and production course, students had the opportunity to actually produce, process, cook and consume an agricultural animal — literally taking the animal from conception to consumption in their own hands. We consider this a valuable learning activity which many students would never otherwise experience. Involving them so directly in agricultural food production better facilitates their understanding and appreciation of some of the factors involved in agricultural animal production. Having directly experienced all the work, care, and time they invested on a small scale, they

more completely appreciated the food value of commercially produced broiler meat, currently available in retail markets for slightly more than a half dollar per pound.

An alternative to directly experiencing all phases of poultry meat production would be a passive learning experience relying only on textbooks, lectures and audiovisual aids. This would eliminate students actually confronting the animal welfare issue head-on and being required to deal with it directly. Although they could learn about it indirectly, they would not as easily appreciate what can and should realistically be done to modify currently accepted poultry production management practices. A greater student appreciation of additional factors involved in commercial-scale poultry production would come from their visiting an actual production-processing facility. An even better experience would entail working at one for a semester or summer internship. Although students may object to various abuses of agricultural animals in any size and scale of production facility directly experienced, at least they would be able to directly evaluate any compromises with animal welfare. Thus, they would be able to more validly voice objections and offer constructive suggestions for realistic modifications.

Conclusions

Integrating the controversial animal welfare issue into an introductory poultry science and production course, rather than ridiculing or ignoring the issue, was rewarding and beneficial to students, instructor, and resource expert. It was a pioneering effort in completely integrating the teaching of philosophy into an animal science course, rather than merely employing a guest lecturer. Based on this case study there appears to be good potential for successful interdisciplinary teaching, where philosophical or even sociological issues are related to animal science and production.

It is essential that students begin to confront both sides of this animal welfare issue while in college. There, they can safely think and debate with an open mind, rather than wait until they start careers as animal protection professionals or professional animal producers. In these professions their thought processes may be strongly influenced by bias. Their entire careers, including their future management decisions, will be positively influenced by an unbiased evaluation of the issue in college. This is an opportunity which current professionals in both animal welfare and animal production have not had. The animal welfare controversy will be resolved in the future by today's college students. These future professionals will make decisions based on studied, unbiased evaluation of all pertinent information available and will exhibit professional respect to proponents of an opposing viewpoint.

So often we hide "behind a hill" taking "potshots" at an equally invisible and misunderstood "enemy." In these kinds of battles, both sides lose. With the animal

welfare controversy, we recommend that both sides confront the "enemy"—at least on the college "battlefield"—learn from each other, respect each other, and work together for reasonable necessary changes in opinion, as well as changes in practice of our respective professionals. In the future may we both win, or at least both benefit from having learned, and reap the profits from desirable human behavior modification. The ultimate benefit will be the increased welfare of animals, including humans.

References

1. Mason, J. and P. Singer. 1980. *Animal Factories*. Crown Publishers, Inc., New York.
2. Moreng, R.E. and J.S. Avens. 1985. *Poultry Science and Production*, Chapter 11. Reston Publishing Company, Inc., Reston, Virginia.
3. Rollin, B.E. 1981. *Animal Rights and Human Morality*. Prometheus Books, Buffalo, N.Y.
4. Singer, P. 1975. *Animal Liberation*. Avon Books. New York.

Four Curriculum Options Within Agricultural Economics

Douglas R. Franklin

The appropriate role that curriculum plays in guiding undergraduate students with respect to careers is very important. One question raised recently in the Department of Agricultural Economics at the University of Nevada, Reno, was, "How does our curriculum compare with that of other Agricultural Economics departments?" Initial answers to this question were investigated by examining comparison data in journal articles. The March 1985 *NACTA Journal* contained a subject and author index to the years 1985 through 1984 (Mortensen 1985). Of the subject matter, 17 articles were on specific curriculum development and effectiveness and two on specific evaluation of particular curricula at identified universities. Additionally, an article by Shute, et al. on the evaluation of one program at one institution was written in March 1985 *NACTA Journal*.

The proceedings issue of the American Economic Association have specific sections on economic education, research effects on economic education, and the teaching of economics. See, for example, Sumansky 1985; Back and Kelley 1984; and Lumsden and Scott 1983. The *Journal of Economic Education* (JEE) prints numerous articles pertaining to teaching. In these three journals only articles dealing with teaching effectiveness and course development were discussed. Of primary importance to the author was the comparison of specific course offerings by numerous agricultural economics departments. Therefore, undergraduate curriculum requirements were requested

Franklin is an assistant professor, Department of Agricultural Economics, College of Agriculture, University of Nevada, Reno, Nevada 89557.