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## **The Actual and Potential Contribution of Economics to Animal Welfare Issues**

Economics has an important, but largely unrealized, contribution to make to animal welfare issues. This is not surprising, because prevailing economic theory has a history of avoiding difficult issues that may ruin elegant, yet unrealistic, theories. One mantra often heard among economists is that interpersonal comparisons cannot be made. Persky (2001) discusses this issue. An extra dollar spent on food is beneficial to a starving person, and an extra dollar toward a 50-foot yacht is beneficial to a billionaire. Most economists, however, claim it is impossible reasonably to determine who benefits more from that dollar. This perspective severely limits the applicability of economic theory to policy issues. It is hardly surprising that economists unwilling to make welfare comparisons between two people do not consider the welfare of animals. Viewed as property, animals receive no direct economic consideration.

### **Assessing the Welfare of Animals**

Clearly, assessing the welfare gains and losses to animals is a challenging and inevitably controversial

task. However, to take on this task even as a rough approximation is preferable to the economic default of, in effect, assigning zero value to the welfare of any sentient life with no spending power. There are tools for assessing animal welfare: for example, the concept of discounted Quality Adjusted Life Years (QALY's) as an aggregate measure to guide policy for humans suggested by Zeckhauser and Shepard (1976). Dawkins (1990) suggests a viable economic approach by observing the elasticity of demand in animals in the laboratory. According to Dawkins, inelastic demand (as demonstrated by animals continuing to try to do something even when the cost goes up) could be evidence of suffering. Another possible method of combining aggregate welfare measures with other qualitative considerations is to use a constrained maximization approach to animal welfare as suggested in Frank (2002).

### **Companion Animal Overpopulation**

Subsidized spay-neuter programs, one of the more promising techniques for addressing the problem of companion animal overpopulation, has been the subject of controversy. Some researchers have argued that these financial incentives are not effective at controlling animal populations (Beck, 1983; Rowan & Williams, 1987; & MacKay, 1993). Yet, others see evidence that these programs are effective (Rush, 1985; Arkow, 1985). This is an example of an economic debate carried out by non-economists, leading sometimes to oversimplification of key issues. For example, low response to spay/neuter programs has often been cited as evidence they are ineffective, yet there is evidence that even a very small change in the spay/neuter rate can have a powerful impact on long-term population size (Frank, 2001; Animal People, 1994). A second economic debate that has taken place almost exclusively by non-economists is the effectiveness of taxes or regulations to give companion animal purchasers an incentive to adopt rather than buy animals from breeders or pet stores. Strand (1993) gives a breeder's perspective on this issue. Frank (2001) discusses one economic analysis of the impact of a tax. Other economic issues include the important role of marketing in reducing the euthanasia of companion animals (Fennel, 1999). Fennel blames some of the problem on market imperfections that make shelter dogs weak substitutes for other sources in the minds of some consumers. The author suggests using a marketing-based model to overcome these barriers.

## Agriculture

Ignorance of animal suffering plays a particularly strong role in food consumption decisions. This brings to bear interesting questions such as how economically to treat true information that yet decreases welfare (knowledge of suffering), since information normally is considered an asset with positive value. With knowledge of suffering, welfare declines, regardless of what the person chooses to do with this information. Yet, is it appropriate to consider ignorance a preferred state for society? This has potentially far-reaching implications. It seems plausible that a significant portion of the population would change its consumption behavior if it were fully aware of the process for creating animal products. Perhaps the government has an obligation to provide information—as it does with other consumer products—to help consumers in making informed decisions about animal product issues. Information economics is a growing sub-field of economics that is applicable both here and to other animal welfare issues. In fact, the 2001 Nobel Prize in economics was awarded to Akerlof, Spence, and Stiglitz for work in information economics.

The market for “humanely produced” animal products also is fertile and important territory for economic inquiry. Appleby (1999) argues, based partially on a market evolution argument, that buying meat produced with high welfare standards does more to improve farm animal welfare than eating a vegetarian diet. A contingent valuation survey of college students by Bennett & Larson (1996) found an average willingness to pay approximately \$8 each to improve the welfare of egg producing hens and veal calves. Are their institutional barriers to the growth of “animal-friendly” agricultural markets? Perhaps national standards are necessary for people to trust that products actually are humanely produced. These are important questions that are best answered using the tools of evolutionary economics.

Another important economic issue regarding farm animal welfare is the effect of international trade and trade-regulating bodies such as the World Trade Organization on retarding or enhancing the progress of more welfare-conscious agricultural markets. This issue has received some attention from economists including Mitchell (2000) and Blandford, Bureau, Fulponi, and Henson (2000).

## Vivisection

The debate over the use of laboratory animals often involves strongly opposing views with public opinion probably lying somewhere in the middle. What often has been lost in the debate is an attempt to move beyond an all or nothing perspective and actually to take serious stock of the costs and benefits of a given project. With most of the public not ready to accept any blanket ban on research, cost-benefit analysis on a project-by-project basis that includes consideration for animal death and suffering may be the most realistic way to get significant policy consideration to the welfare of laboratory animals. The danger of an out-of-hand cost-benefit analysis lacking rigor can be seen clearly in Cohen and Regan (2001) where Cohen accuses others such as Singer of inadequate analysis, while Regan suggests Cohen suffers the same deficiency.

Both probably are correct in stating that the cost-benefit of others is inadequate. Cohen appears to imply that even if animal and human are weighted equally, the great benefits of medical research more than justify the costs. Yet, if the lost lives and suffering are assessed objectively and given equal weight, the numbers clearly demonstrate that the lives lost through research enormously exceeds the lives saved. The same would be true for pain and suffering. In addition, this analysis confuses gross benefits with net benefits. As Greek and Greek (2001) point out, animal research—even if the animals are given zero weight—has a large cost; they suggest that these costs alone exceed the benefits. This is a common error; gross benefits often are confused with net benefits. To use an example from Frank (2002):

if the benefits of a road in terms of improved access and convenience can be estimated in dollar terms at \$10,000,000 and the cost it would take to build the road is \$9,000,000, then the net benefit to people would be the \$1,000,000 difference, not the full \$10,000,000. In many cases the human benefits of development projects only slightly outweigh the human costs, therefore adding animal interests can easily sway the balance in favor of not developing. (p. 59)

An economic approach to the problem would dictate we consider the possibility of taxation to “internalize” the externality of animal suffering. This is an interesting possibility that has not received adequate attention. Currently, animal researchers have little incentive to consider alternative methods or other projects. In normal markets, a tax provides such an incentive. This also

may work for pharmaceutical companies, but the market behavior of non-profit research institutions may depend on the actions of large grant givers. However, even if these grant givers are insensitive to project cost, they still have limited resources leading to a reduction in research when this cost is internalized. Blackorby and Donaldson (1992) present one theoretical model examining animal research from an economic perspective. According to their model, a tax cannot lead to the optimal solution, although it can move society closer to the optimal solution.

#### *Fur Products*

Fur presents a potentially fascinating topic for economic analysis in that it represents a case where a concerted effort to highlight animal welfare issues dramatically altered consumer preferences. However, fur sales in 2000 were up 21%, the largest gain since 1988 (Fur Information Council of America, 2001). Does this imply that the anti-fur movement only created a temporary change? Or has there been a permanent shift in consumer consciousness despite a slight rebound in sales? Questions like this have important implications for understanding changing consumer awareness of other animal welfare issues.

#### *Wild Populations*

There is a wealth of literature concerning wild animal populations in environmental and ecological economic journals. For example, Tisdell (1986) demonstrates that it is sometimes “preferable” in the purely anthropocentric economic sense to hunt a wild species to extinction. This literature sometimes is critical of traditional economic valuation methods, including its failure to account for ethical considerations (O’Neill & Spash, 2000). Although concepts such as “non-use value” and the “intrinsic value” of the environment receive some consideration, the majority of this literature still focuses on humans rather than other sentient life (including future generations) as the *locus* of welfare.

### **Conclusion**

A common theme in many of these issues revolves around cost-benefit analysis—in particular, weighing human benefits against animal costs. There also

is the issue of weighing the costs and benefits for the animals themselves. For example, while Singer (1975) concluded that farm animals live a life so filled with suffering that they are better off not existing, Appleby (1999) concludes that animals in farms, zoos, circuses, and even laboratories have a net positive welfare (even in their current conditions) from being alive.

A second theme is one of economic efficiency: how to use resources efficiently to reach an agreed upon goal—such as reducing companion animal euthanasia. Finally, defining animals institutionally as property also is a recurring issue of vital importance in animal welfare topics.

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