Pareto for Pigs and Puppies?

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November, 2024

Extended Abstract

Recent studies have begun incorporating animal welfare into economic cost-benefit analyses (Espinosa and Treich, 2021; Budolfson and Spears, 2021; Kuruc and McFadden, 2023b; Espinosa and Treich, 2024). The inclusion of animal welfare has the potential to greatly affect optimal policy recommendations. For example, including the harms that climate change will inflict on trillions of wild animals is likely to substantially alter estimates of the social cost of carbon. The same is true for agricultural policies, medical testing, and other sectors where market outcomes have direct effects on large numbers of animals. Economic research and practice would look radically different if these animal-inclusive frameworks were widespread.

Using standard tools from economic theory, this paper argues that the field has little choice but to include animal welfare in policy analyses. This result follows from appending a novel, but uncontroversial, inter-species axiom to standard axioms of social choice theory. This inter-species axiom is a simple extension of the familiar Pareto Principle: If an outcome makes no human or animal better off, but worsens the life of at least one animal, it is a social worsening. This is extremely weak, and we expect it to be widely accepted as true.[1] However, in conjunction with the standard axioms of social choice (e.g., completeness, continuity, transitivity, etc.), it is powerful. We prove that the only social objective functions satisfying this combination of axioms are additive between human and animal welfare, with a non-zero weight on animals.

This result rules out the omission of animal welfare, but it does not dictate the weight that their interests should receive. Perhaps the appropriate weight is so small that, in

[1] E.g., We do not see how it could not be a strict worsening if the only change to the vector of individual utilities was that some animal endured more suffering over its lifetime.

practice, it is acceptable to ignore what happens to them. In a simple application of our framework, we demonstrate that this convenient approximation fails. Placing even a very small weight on chickens (e.g., 0.1% relative to humans) does not prevent their collective interests from being quantitatively relevant in decisions about agricultural policy. Once you accept that your axiomatic commitments require the inclusion of animal welfare, there is not a straightforward path towards rounding their interests to zero in cases where large numbers are affected.

We are not the first economists to argue that the welfare of animals should be included in economic analyses (see e.g., Johansson-Stenman, 2018; Fleurbaey and Leppanen, 2021; Carlier and Treich, 2020; Treich, 2022; Kuruc and McFadden, 2023a). However, these claims typically build from the philosophical argument that species membership is morally irrelevant. This has led many economists to ignore such calls, given the unintuitive premise at their core. Our approach relies on a far weaker claim—only that, *other things equal*, costlessly improving an animal's life has non-zero value. Few would deny this. Nowhere do we assume, impose, or generate the finding that animals and humans matter to the same degree.

Despite this significant weakening, our results imply dramatic revisions to existing findings and future economic analyses.

References

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