



THE PALGRAVE MACMILLAN
Animal Ethics Series



ANIMALS AND THE ECONOMY

Steven McMullen



The Palgrave Macmillan Animal Ethics Series

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Aims of the Series

In recent years, there has been a growing interest in the ethics of our treatment of animals. Philosophers have led the way, and now a range of other scholars have followed from historians to social scientists. From being a marginal issue, animals have become an emerging issue in ethics and in multidisciplinary inquiry. This series will explore the challenges that Animal Ethics poses, both conceptually and practically, to traditional understandings of human–animal relations. Specifically, the Series will: provide a range of key introductory and advanced texts that map out ethical positions on animals; publish pioneering work written by new, as well as accomplished, scholars, and produce texts from a variety of disciplines that are multidisciplinary in character or have multidisciplinary relevance

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Animals and the Economy

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Series Editors' Preface

This is a new book series for a new field of inquiry: Animal Ethics.

In recent years, there has been a growing interest in the ethics of our treatment of animals. Philosophers have led the way, and now a range of other scholars have followed from historians to social scientists. From being a marginal issue, animals have become an emerging issue in ethics and in multidisciplinary inquiry.

In addition, a rethink of the status of animals has been fueled by a range of scientific investigations which have revealed the complexity of animal sentience, cognition, and awareness. The ethical implications of this new knowledge have yet to be properly evaluated, but it is becoming clear that the old view that animals are mere things, tools, machines, or commodities cannot be sustained ethically.

But it is not only philosophy and science that are putting animals on the agenda. Increasingly, in Europe and the USA, animals are becoming a political issue as political parties vie for the “green” and “animal” votes. In turn, political scientists are beginning to look again at the history of political thought in relation to animals, and historians are beginning to revisit the political history of animal protection.

As animals grow as an issue of importance, so there have been more collaborative academic ventures leading to conference volumes, special journal issues, indeed new academic animal journals as well. Moreover,

we have witnessed the growth of academic courses, as well as university posts, in Animal Ethics, Animal Welfare, Animal Rights, Animal Law, Animals and Philosophy, Human–Animal Studies, Critical Animal Studies, Animals and Society, Animals in Literature, and Animals and Religion—tangible signs that a new academic discipline is emerging.

“Animal Ethics” is the new term for the academic exploration of the moral status of the non-human—an exploration that explicitly involves a focus on what we owe animals morally, and which also helps us to understand the influences—social, legal, cultural, religious, and political—that legitimate animal abuse. This series explores the challenges that Animal Ethics pose, both conceptually and practically, to traditional understandings of human–animal relations.

The series is needed for three reasons: (1) to provide the texts that will service the new university courses on animals; (2) to support the increasing number of students studying and academics researching in animal related fields, and (3) because there is currently no book series that is a focus for multidisciplinary research in the field.

Specifically, the series will

- provide a range of key introductory and advanced texts that map out ethical positions on animals;
- publish pioneering work written by new, as well as accomplished, scholars; and
- produce texts from a variety of disciplines that are multidisciplinary in character or have multidisciplinary relevance.

The new Palgrave Macmillan Series on Animal Ethics is the result of a unique partnership between Palgrave Macmillan and the Ferrater Mora Oxford Centre for Animal Ethics. The series is an integral part of the mission of the Centre to put animals on the intellectual agenda by facilitating academic research and publication. The series is also a natural complement to one of the Centre's other major projects, the *Journal of Animal Ethics*. The Centre is an independent “think tank” for the advancement of progressive thought about animals, and is the first Centre of its kind in the world. It aims to demonstrate rigorous intellectual enquiry and the highest standards of scholarship. It strives to be a world-class centre of academic excellence in its field.

We invite academics to visit the Centre's website www.oxfordanimalethics.com and to contact us with new book proposals for the series.

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1

Introduction

It is difficult to critically question a way of life that seems normal. Despite considerable prodding, I was largely ignorant and apathetic about the lives of animals until only a few years ago. What changed my perspective was not a visceral experience of violence, nor was it a philosophic argument. Instead, I started to think critically only when I witnessed those close to me modeling the barest of moral intuitions: that animals warrant our attention and ethical consideration. As I adopted this posture, a set of economic questions arose that are almost entirely outside the standard fare for scholars of economics and public policy. The two most fundamental questions are the following. Why do so many animals live such short lives in terrible conditions? What could realistically be done to change their lives? It was my attempt, as an economist, to grapple with these questions that gave rise to this book.

While many of the difficult questions about moral obligations to animals remain strictly philosophical and theological, the question of “why” animals live as they do clearly has significant economic and political dimensions. As humans have become wealthier and more productive and have adopted improved standards of living, animals under human control have consistently lived lives that are shorter and more impoverished.

Yet economists have been largely silent. Many scholars have used economic tools to investigate the productivity of animal agriculture, in material terms. Many others have studied the demand for animal-derived products, including more “humane” alternatives. For system-wide analyses of the place of animals, however, the field of economics has, until recently, offered very little.

There are many reasons for economists’ silence on this topic. It has received little attention in public policy circles, and so it was not a political priority. Further, large systemic questions are out of vogue in the discipline, which favors well-defined, focused, empirical questions. The most important reason for economists’ silence, however, is that many ethical questions are framed as personal matters, rather than as questions of justice. Garner argues that this is a characteristic of modern liberalism in the midst of moral pluralism.¹ Following the American philosopher John Rawls, moral questions become issues of preferences, about which reasonable people can disagree, rather than questions of justice with accompanying obligations. Conversations about animal ethics, in this mode of thinking, are not matters of economics; they are personal matters. Economists, the reasoning goes, might care for animals, or not, but the place of animals is incidental to the work of economists. Moreover, economists have been eager to expel explicitly moral and ethical arguments from our scientific investigations for some time. The result is that there is little room in mainstream economic work for animal ethics.²

The argument of this book starts with the assumption that animals have ethically relevant interests, and humans have a corresponding moral obligation to consider those interests when making decisions. It is clear, moreover, that current economic thinking marginalizes the interests of animals, usually leaving them outside the realm of consideration. This is not just a problem with the way we think about economics. Our economy

¹ Robert Garner, “Political Ideologies and the Moral Status of Animals,” *Journal of Political Ideologies* 8, no. 2 (2003): 233–46.

² There are a few recent notable exceptions. For example: David Robinson Simon, *Meatonomics: How the Rigged Economics of Meat and Dairy Make You Consume Too Much—and How to Eat Better, Live Longer, and Spend Smarter* (Newburyport, MA: Conari Press, 2013); F. Bailey Norwood and Jayson L. Lusk, *Compassion, by the Pound: The Economics of Farm Animal Welfare* (New York: Oxford University Press, 2011); Charles Blackorby and David Donaldson, “Pigs and Guinea Pigs: A Note on the Ethics of Animal Exploitation,” *Economic Journal* 102, no. 415 (1992): 1345–69.

is also built in a way that systematically marginalizes the interests of animals. Just as scholars have left animals outside the realm of justice, so too our institutions are designed to give attention and consideration only to the interests of humans. It is for this reason that animal advocates have worked tirelessly to advocate on behalf of animals in formal legal and commercial settings.

Convincing people to care more about animal well-being is not enough on its own. Even if more people are convinced to treat animals well, the problem will remain. The systemic marginalization of animals extends further. I make the case here that even human interests in animal flourishing are marginalized. Consumers that desire animal-friendly products will be consistently stymied by a system that makes animals invisible and incentivizes consumption of animal products. Producers who wish to build a more humane agricultural system operate in a competitive selling environment that places severe limits on their ability to innovate in favor of animals. Researchers who would like to engage in biomedical research without engaging in damaging animal experiments will be systematically marginalized by legal regulations and because they must adopt non-standard methods. Individual preferences are not the only thing limiting animal welfare when systemic constraints limit the expression of some preferences and encourage others.

In this context, I examine the prospects for individual action. In some cases, individuals can make a significant difference, and many have already done so. In other cases, progress requires coordination, and policy changes are required before people will be free to express preferences for respecting animals. Some policy changes are minimal, such as changing government subsidies or providing better product labeling. Most animal lives will remain unchanged, however, until significant regulations limit human use of animals. Absent such regulations, competition will usually reward those producers that prioritize profitability over animal well-being. The most fundamental economy-wide progress will require a significant change in what it means for a human to own an animal. Piecemeal regulations that limit the worst practices will be minimally effective if the law only recognizes the interests and standing of humans.

In some ways, the case I make is a critique of our economic system. Some of the elements that are central to market economies are at the heart

of the problem. Specialization, competition, and technological development all contribute to animal exploitation. These things largely explain why many animals live lives that are clearly worse than their counterparts only 100 years ago.³ My goal, however, is not to argue for a wholesale replacement of the system, or to argue that animal exploitation is a symptom of a wholly unjust system. Other scholars have made this case, but notably, economists have not.⁴ It is not fair to say that the problem is “capitalism,” for a couple of reasons. First, it is not clear that there is a viable alternative to market economies that would be particularly better for animals and not significantly worse for humans. While plenty of societies have existed across time that are or were friendlier to animals, none of these seem to be scalable alternatives to the present system.

The second reason why this book will not advocate a wholesale rejection of capitalism is that doing so usually requires glossing over the vast possibilities that exist within what could be called a “market economy.” The essential elements of modern market economies need not be anthropocentric. For example, in order to build an economy that includes animal interests, it may be necessary to rule out large swaths of current commercial practice. Current animal agriculture practices are notable candidates for elimination. Changes of this type would be dramatic for some individuals, but the economic system would not be threatened. The structure of the economy would remain much the same. Similarly, we could give substantial legal protections for animals, protections that limit human interactions with animals to those that are clearly beneficial to the animal, and commerce would continue in the same way it does today. These substantive changes would alter the distribution of economic benefits in ways that favor animals, but would do so in the context of a market system. One of the main purposes of this book, in fact, is to point to a public policy path that would dramatically change the character of the economy for animals, while retaining the responsiveness and productivity of our current market institutions.

If this case I am trying to make seems ideologically inconsistent, it is only because radical political movements are often allied, and the pro-animal

³ Steven McMullen, “Is Capitalism to Blame? Animal Lives in the Marketplace,” *Journal of Animal Ethics*, Forthcoming; Norwood and Lusk, *Compassion, by the Pound*, Chap. 2.

⁴ David Nibert, *Animal Rights/Human Rights*, (Rowman & Littlefield Publishers, 2002); Bob Torres, *Making A Killing: The Political Economy of Animal Rights* (Oakland, CA: AK Press, 2007).

movement is often closely connected to other radical movements that seek to fundamentally change our economic system. For this reason, it is worth considering carefully some of the economic language that will be common in this book. I freely use the term “exploitation” to describe much human use of animals in the economy. This is not meant to be an inflammatory term, though it often serves this purpose in political literature. Instead, exploitation is a descriptive term, pointing to instances where economic or political powers are used to impose one’s will on another for material gain. Many human agreements are often labeled as exploitation, but few of them are as clearly exploitative as the common commercial uses of animals. Similarly, I use the term “oppression” to describe systematic unjust treatment and control.

Imagining a market system that limits the exploitation and oppression of animals is no small undertaking. It could be done simply, at great cost, by dramatically limiting human population and separating human environments from other natural ecosystems. As long as humans and other animals are living in shared spaces, however, there will be conflicts between the interests of humans and the interests of other animals. Since humans have economic and political power that other animals do not have, there will always be a real possibility of systemic injustice toward animals. Crafting laws that protect the most basic interests of animals is only a start. It is also important to establish oversight and responsibility in such a way that individual incentives are aligned wherever possible. If successful, we could live in a world where people are free to exercise their creativity and passion without being forced into complicity with injustice.

It is important to note that I do not try to outline a consistent or innovative approach to animal ethics. Those who are not yet convinced that humans have duties toward animals should start with one of the many volumes that take up this question directly. I have found the work of Tom Regan,⁵ Andrew Linzey,⁶ and Matthew Scully⁷ particularly helpful

⁵Tom Regan, *Empty Cages: Facing the Challenge of Animal Rights* (Lanham, MD: Rowman & Littlefield, 2005).

⁶Andrew Linzey, *Animal Theology* (University of Illinois Press, 1995).

⁷Matthew Scully, *Dominion: The Power of Man, the Suffering of Animals, and the Call to Mercy*, repr. ed. (New York: St. Martin’s Griffin, 2003).

though I often turn also to Martha Nussbaum⁸ or Peter Singer.⁹ These authors represent a wide community of people who have, in many different ways, made the case for human consideration of animal interests. In this volume, my philosophic approach will be eclectic. As an economist and public policy scholar, I accept the goal of improving the lives of animals, and then examine many possible proposals that could move our economy in that direction. In this process I consider many options that will have far too little an effect to be called a “solution,” but are still worth considering.

One of the common divides in the animal ethics community is between those advocating a strict “rights” approach and those adopting a “welfarist” approach. The first camp favors the abolition of animal ownership and would not advocate improved conditions for farmed animals. The welfarist camp tends to be more pragmatic, offering compromise solutions that will make animals better off, but might leave an unjust system intact. For example, while I personally try to avoid purchasing eggs, even those that are “cage free,” because hens in these systems are still treated quite badly, I would happily entertain a proposal that would make such a system the minimal standard for the industry. I suspect that this approach places me solidly in the welfarist camp of animal advocates, since eliminating human consumption of animals is not the only goal I am willing to pursue. Moreover, near the end of the book, I propose reforms of property law, but argue that eliminating the ownership of animals is probably not an ideal solution. I accept that these arguments place me well into the moderate side of the animal ethics literature. However, I offer this caveat: I welcome the day when all that is written in this book is considered old-fashioned, or even reactionary. When that time comes, we will finally have moved policy to the point where there are real contested questions about animal rights. Then we will be able to have the conversation, as a society, about the duties that humans owe to other animals that we should have been having long ago.

⁸ Martha C. Nussbaum, “Beyond ‘Compassion and Humanity’: Justice for Nonhuman Animals,” in *Animal Rights: Current Debates and New Directions*, eds. Cass R. Sunstein and Martha C. Nussbaum (New York: Oxford University Press, 2006), 299–320.

⁹ Peter Singer, *Animal Liberation: The Definitive Classic of the Animal Movement* (New York: Harper Perennial, 2009).

Moreover, as I argue in later chapters, I find the contention that we have to choose between a “welfarist” and a “rights” position to be unconvincing. While there is some trade-off in the efforts of activists, perhaps, it is entirely consistent to aspire to the widespread recognition of animal rights while working for second-best changes whenever they become politically possible. The utilitarian and pragmatic bent of the economics discipline lends itself to policy analysis, but not to the development of pure principles. As a result, my comparative advantage as a scholar is in the analysis of human action and consequences as they relate to animal lives, and to consider the effects of the policy changes that might be possible. This is the project I take up in this book.

It is also worth mentioning, if only briefly, the language used in this book to refer to animals. I have tried to avoid overtly derogatory terms or metaphors, because there is an important sense in which our attitudes and ideas are carried in our language. Speaking and writing about animals using respectful language is a step in the right direction, all by itself. That said, I will often use the general term “animals” to refer to all non-human animals as a group. When appropriate, I will refer to “humans and other animals,” and sometimes, when precision is required, to “non-human animals.” This is not the most progressive set of language choices, but it preserves the flow of the language while using terms that are widely accessible.

The book will proceed as follows. The second chapter contains an overview of what I call “the problem.” The larger argument of the book requires that we first establish, with clarity, the place that animals inhabit in our economy. Moreover, it is important to motivate here two essential points: (i) that economic function dictates much about the lives of animals, and (ii) that changes in animal treatment and population are often economic phenomena. Even the way we think about animals and their value is limited by their place in the economy, resulting in an emphasis on exchange value instead of inherent value or dignity. The third chapter establishes the place of economic theory about animals as a part of the marginalization of animal interests. Here I offer a new set of starting assumptions regarding animals that could help build a body of non-anthropocentric economic theory.

Chapters 4 and 5 consider the role of the consumer in the economy. In Chap. 4, I describe the ways that the structure of the consumer economy

marginalizes animals. More importantly, though, the structure of the consumer economy also marginalizes pro-animal preferences that consumers have. The result is an economy in which consumers actually desire, and are willing to pay for, a better world than is delivered to them. Chapter 5 considers consumer action as pro-animal activism and policy changes that will empower consumers to make better choices. I make the case that, with substantial policy changes, consumer power could be exercised in a way that was far more ethical than is currently possible.

Chapters 6 and 7 consider the producer side of the market for animal products, especially animal agriculture. I argue in Chap. 6 that most farmers are given little freedom to produce animal products using any but the most efficient, and often inhumane, methods. These limitations point to the importance of widespread coordinated action. Chapter 7 takes up the large topic of regulating animal industries. I cover many different types of arguments in favor of heavier regulation, from utilitarian social welfare arguments to those that depend on the market structure and the freedom of producers. Having established the importance of regulating these industries, I describe some broad principles for crafting effective regulation.

Chapter 8 turns to the topic of animals used in experiments and safety testing. I argue that the systemic structure behind this kind of animal exploitation is similar to that of commercial animal farming in a couple of important ways: participants have few alternatives, and government regulations encourage unethical practice. I argue for an expansion of government protections for animals used in experiments and an aggressive shift toward testing procedures without animals.

Chapters 9, 10, and 11 take up the topic of animal ownership. Chapter 9 examines the economic literature on property law and the environment. There is a large body of literature examining the preservation of endangered species using public and private means. The core lesson is that property laws can sometimes align the interests of individual humans with larger environmental goals. Chapter 10 considers the animal ethics literature on property law, comparing the arguments of those who advocate complete abolition and those who prefer to preserve some form of human ownership of animals. Chapter 11 argues for a set of property

law reforms that would create a broadly consistent framework for legally recognizing the interests of animals.

I conclude with an examination the broad argument of the book. In this final chapter I consider the possibility of a genuinely pro-animal market economy, with all the promises and difficulties that such a prospect entails. I also consider what ordinary economic interactions might look like if the changes discussed in this book were actually made.

It is important for me to acknowledge the generosity of the many people who helped make this book possible. I would not have been able to undertake a project like this without the support of my employers, first Calvin College and now Hope College. It is a privilege to contribute to an institution that encourages me to commit my energy to this kind of work. My colleagues in the department of economics at Calvin College and the department of economics and business at Hope College also deserve thanks, especially David Phillips, Sarah Estelle, Peter Boumgarden, Marcus Fila, Todd Steen, and Doug Iverson. I also appreciate Neil Carlson and Jim Halteman's help in crafting the book proposal. Matt Halteman deserves special mention for his ruthless fusion of intellect and passion that helped draw me to this work, for encouraging this project from the start, and helpful feedback. Andrew Linzey, Priscilla Cohen, and Clair Linzey have all worked hard to edit the excellent series that this book will join. Reverend Linzey in particular deserves thanks for encouraging me to take on this project. The editorial staff at Palgrave Macmillan has been excellent, including Grace Jackson, Esme Chapman, and Brendan George. Finally, my family, especially Laura McMullen, deserves credit for helping me through the entire project; in some sense every part of our lives is a joint enterprise.

2

The Place of Animals in the Economy

The normal experience of non-human animals in the industrialized world usually includes significant harm at the hands of humans. At the same time, the normal experience of humans in the industrialized world is to encounter other living species of animals only in relatively peaceful situations. Consider that a representative animal's experience is that of the hog confined for his short life until he is slaughtered. A representative human's experience is their interaction with the neighbor's cat. This basic difference summarizes one of the main conclusions of this book, that the economy has been shaped by and for humans, often to the detriment of animals, but that this exploitation is largely not visible to the average human beneficiary.

While many human-animal interactions are positive, I will document in this chapter that in most interactions, humans benefit at the expense of other animals. Moreover, the harm that non-human animals experience at the hands of humans is largely determined by economics. Among those animals that are owned by humans, property laws and economic function dictate their experiences in life and death. Farmed animals live and die according to the normal practices of animal agriculture. These are, in turn, determined by concerns about cost and productivity.

Pets are bred for commercial sale and life in human communities. The mice, rabbits, and frogs that are bred for scientific experimentation live and die at the service of medical or biological knowledge. Even the lives of free-living animals are often marked by human interactions that are dictated by economic forces. The populations of most mammals are controlled using the logic of costs and benefits to human property and convenience.¹

If economic function dictates the life and death of these animals, it is also economic and legal forces that protect animals from the worst harms. Pets are protected by anti-cruelty laws, though these protections are highly inconsistent.² These laws offer little protection for farmed animals. Instead the interests of chickens, pigs, and cows are looked after by the industries that profit from their use, and the preferences of consumers, who sometimes demand better animal treatment. The spaces set aside as protected habitation for free-living animals must justify their existence based on tourism, human pleasure, or the management of natural resources.

Being a Non-Human Animal

In order to understand the experience of non-human animals, it is helpful to follow Matthew Halteman³ in distinguishing between three different types of harm:

- (1) Procedural harm: damage that is done to animals using generally accepted or “standard” practices.
- (2) Institutional oppression: normal deprivation of animals’ freedom to pursue their basic natural instincts.
- (3) Abuse: unusual harm done to animals via negligence or sadistic violence.

While much of the attention of animal advocates is devoted to preventing the third type of harm (abuse), this volume will instead focus on the first

¹ John A. Hoyt, *Animals in Peril* (Garden City Park, NY: Avery, 1995).

² Siobhan O’Sullivan, *Animals, Equality and Democracy* (London: Palgrave Macmillan, 2011).

³ Matthew C. Halteman, “Varieties of Harm to Animals in Industrial Farming,” *Journal of Animal Ethics* 1, no. 2 (October 4, 2011): 122–31, doi:[10.5406/janimalethics.1.2.0122](https://doi.org/10.5406/janimalethics.1.2.0122).

two types of harm. Procedural harm and institutional oppression are the costs that animals bear from human ownership and use of their lives and bodies. These are the harms that are determined by economic forces, subject to laws and regulation, and are the topics of policy debate. These harms can properly be thought of as systemic, characteristic of the economic system in which we are operating. In practice, these harms tend also to be technological. The way we treat non-human animals that are under human control is often a function of the technology of the uses that humans have developed for animal products. For all these reasons, economics is well-suited, as a discipline, for helping us understand the nature of the system that determines the experiences of non-human animals.

Animal Agriculture

The majority of animals that are under human control are farmed in the agriculture system. The typical conditions of such animals have been the subject of significant public scrutiny and have been documented in many places. Even on well-run farms using standard industry practices, animals are subject to substantial harm. Cows, who live relatively well, may over the course of their lives experience tail-docking, castration, ovariectomy, and dehorning. Pigs, in turn, may experience tail-docking, castration, and extended confinement in barren environments. Chickens may experience de-beaking, forced molting (starvation), and confinement in barren environments. Finally, all of these animals are eventually slaughtered. These procedures are painful for the animal, and are routinely used to improve the productivity of animal agriculture and to adapt the animals to their commercial purpose.

In addition to these procedural harms, farmed animals are also subject to significant harms that could be described as institutional oppression. Farmed animals are routinely separated from their offspring/parents and housed in a manner that prevents them from forming natural bonds with other creatures. Pigs and chickens are often so confined that natural movement is impossible. In the case of chickens and turkeys, some breeds have been so relentlessly selected for agricultural productivity that natural behaviors are physically impossible for them by the time they are fully grown. Moreover, it is important to note that the lifespan of farmed animals is

extremely short. Cows, which can naturally live 15–20 years or longer, are generally slaughtered around two years of age if they are raised for meat, and at about four years if they are dairy cows. Moreover, at slaughter as many as 25% of dairy cows are lame due to normal dairy farming practices.⁴ Chickens can live 10 years or longer, but egg-laying hens are usually killed at two years, those raised for meat at about 6 weeks, and male chicks of egg-laying breeds are killed at birth. Similarly, pigs can easily live more than a decade, but are usually killed at one year or younger.

In short, with the exception of cattle, which are often raised in a natural environment for some portion of their lives, animals raised for food generally have abundant food, shelter from weather and predators, and some basic medical care. They are also subject to painful procedures without any pain-relievers, are prevented access to normal relations with other animals, are raised in a barren, cramped environment, and killed at an unnaturally young age.

Companion Animals

Relative to pigs and chickens, cats, dogs and other companion animals probably live relatively fulfilling lives. They enjoy a privileged cultural status, better legal protections, and far more concern for their welfare. These animals have been bred and selected to live in close quarters with humans, and so their position can be comfortable. Cats, dogs, horses, and other companion animals also fare significantly better in the legal system. Treatment that is routine for pigs in agriculture would be in gross violation of humane treatment laws for dogs or cats kept as companions. Moreover, while other owned animals tend to live short lives before they are no longer useful to humans, companion animals will often live close to their full lifespan.

As property, however, companion animals are still subject to economic systems. The scale of pet ownership in the USA has resulted in large-scale dog and cat breeding operations, similar to other industries. Firms that

⁴D.L. Roeber et al., “National Market Cow and Bull Beef Quality Audit-1999: A Survey of Producer-Related Defects in Market Cows and Bulls.,” *Journal of Animal Science* 79, no. 3 (March 1, 2001): 658–65.

breed and sell these dogs and cats have often found that they can profitably sacrifice some of the welfare of their animals in order to improve efficiency.⁵ The result is that the dogs and cats sold in pet stores are often bred in poor conditions, with little space, barren environments, and, in some cases, inadequate nutrition.⁶ As a result, some states have passed animal welfare laws to supplement the minimal protections offered by the 1966 federal Animal Welfare Act. Moreover, because demand is low for previously owned animals, every year around 2.6 % of dogs and 3.1 % of cats are euthanized in animal shelters that do not have the resources to care for the animals in perpetuity.⁷ This means that annually around 2 million dogs and 2.6 million cats are euthanized for want of a human household.⁸

It is not just the lives of companion animals that are subject to marketplace demands. Human demand for certain genetic traits has, in some famous cases, caused breeders to sacrifice animal well-being in order to improve the physical appearance of some dog breeds. Inbreeding among some breeds has led to the expression of harmful recessive traits,⁹ compromising dogs' immune systems, skin, blood, heart, vision, hearing,

⁵ Katherine C. Grier, *Pets in America: A History* (Chapel Hill: University of North Carolina Press, 2006); Kimberly K. Smith, "A Pluralist–Expressivist Critique of the Pet Trade," *Journal of Agricultural and Environmental Ethics* 22, no. 3 (June 1, 2009): 241–56, doi:10.1007/s10806-009-9145-x.

⁶ Kailey A. Burger, "Solving the Problem of Puppy Mills: Why the Animal Welfare Movement's Bark Is Stronger than Its Bite.," *Washington University Journal of Law & Policy* 43 (2013): 259; Sandra K. Jones, "Dealing Dogs: Can We Strengthen Weak Laws in the Dog Industry.," *Rutgers Journal of Law and Public Policy* 7, no. 3 (2010): 442–80.

⁷ Paul C. Bartlett et al., "Rates of Euthanasia and Adoption for Dogs and Cats in Michigan Animal Shelters.," *Journal of Applied Animal Welfare Science: JAAWS* 8, no. 2 (2005): 97–104, doi:10.1207/s15327604jaws0802_2.

⁸ Population statistics from the Humane Society of the U.S.: http://www.humanesociety.org/issues/pet_overpopulation/facts/pet_ownership_statistics.html. The numbers are extrapolations from the Bartlett et al. Michigan study.

⁹ Consider the details in the Canine Inherited Disorders Database, available at <http://www.upei.ca/-cidd/intro.htm>. Some disorders are found to be more common among purebreds, some equally common among mixed-breed dogs and purebreds, while a small number are more common among mixed breed dogs. See Thomas P. Bellumori et al., "Prevalence of Inherited Disorders among Mixed-Breed and Purebred Dogs: 27,254 Cases (1995–2010).," *Journal of the American Veterinary Medical Association* 242, no. 11 (June 2013): 1549–55, doi:10.2460/javma.242.11.1549.

and skeleton.¹⁰ In a manner similar to the genetic manipulation of farmed animals, this dark side of selective breeding places the animal's marketable characteristics in a place of priority over the long-term health of individual animals and the species.

Animal Experimentation

As will be examined in detail in Chap. 8, millions of animals are bred, confined, and killed for the purposes of scientific research and safety testing. Some of these animals, such as cats, dogs, horses, and apes, are subject to strict welfare regulation. Others, such as rodents, lizards, and birds, have little protection in the USA, where even their numbers are not tracked. The experience of animals raised for experimental purposes varies greatly, but some elements of their lives are common. First, they are bred and kept in confinement. For most of these small animals, their environment will rarely include anything other than a small cage. Exercise and social interaction will be limited. Their lives will be short. The limited protection that these animals enjoy stems from their usefulness as research tools. Researchers avoid the kinds of mistreatment and abuse that might compromise the reliability of their experiments.

When these animals are used for experiments, their fate might be as simple as ingesting specially designed placebo food as part of a control group, or as violent as paralysis and live dissection. In routine toxicology testing, rats are often fed or injected with substances being tested in extreme amounts, a process that will continue until the dose is lethal. As soon as their usefulness as experimental subjects is over, if the animal is still alive, most will be immediately killed. In this way, the lives of these animals closely resemble that of the animals raised for food. Their genetics are tightly controlled for human purposes, their environment is barren, their social lives are limited, and their life is short.

¹⁰ Paul McGreevy, "Flaws on Paws—Welfare Problems in Breeding Pedigree Dogs," *New Scientist*, October 8, 2008, <http://sydney.edu.au/news/84.html?newsstoryid=2695>.

The Economic Source of Animal Exploitation

It is somewhat surprising that scholars and activists tend to downplay the social structural causes of animal exploitation, favoring instead moral, cultural, and ideological explanations.¹¹ Those that do focus on the economic systemic causes, tend to do so as part of a blanket condemnation of capitalism as a whole.¹² In contrast, Norwood and Lusk examine the economic context of animal agriculture in great detail, but find little, ultimately, to critique in the systemic treatment of non-human animals.¹³ The approach of this book is neither to condemn capitalism nor to accept the status quo. Capitalism is too ill-defined and too broad a phenomenon to condemn in the absence of a viable alternative for coordinating global economic exchange. Nevertheless, within broadly “capitalist” or “market-oriented” economic systems, there is far more diversity than is often realized. Moreover, the chapters that follow will demonstrate that we can enact systemic change by altering the rules of the game within our current system.

In order to shape an economy that is humane, however, we must first understand the ways in which animal lives are determined by specific elements of our economic system. Nibert and Torres employ a three-part explanation for systemic exploitation, based on (1) economic conflict, (2) power disparity, and (3) reinforcing ideology.¹⁴ The presence of economic conflict is clear: Animal and human interests are often at odds. Humans desire to eat animals, animals desire to live free of human violence. Humans and animals both have an interest in inhabiting the same scarce land. Humans desire subjects for research; animals get little benefit from such research, but bear the brunt of the cost. The power disparity between humans and animals is also clear, with political power located unevenly among humans exclusively. The reinforcing ideology rests in the

¹¹ David Nibert, *Animal Rights/Human Rights* (Lanham, MD: Rowman & Littlefield, 2002), 11.

¹² Nibert, *Animal Rights/Human Rights*; Bob Torres, *Making A Killing: The Political Economy of Animal Rights* (Oakland, CA: AK Press, 2007).

¹³ F. Bailey Norwood and Jayson L. Lusk, *Compassion, by the Pound: The Economics of Farm Animal Welfare* (New York: Oxford University Press, 2011).

¹⁴ Nibert, *Animal Rights/Human Rights*; Torres, *Making A Killing*.

widely anthropocentric assumptions and practices that make up many modern cultures.¹⁵

For the purposes of this book, the examination of systematic exploitation will focus on the set of institutions that have been built in the midst of this context of conflicts, power disparities, and ideology. In order to understand economic institutions, however, it is necessary to consider the focus and role of economic theory. Both theory and practice are stacked against the interests of non-human animals, in favor of human interests.

Economic Theory

It is important to note that the systemic marginalization of animals is built into the way we think about the economy. Economic theory is anthropocentric, focused only on human ends. These theories about citizenship, the economy, and government shape culture and institutions. We must critically examine the place of animals in the disciplines of economics, policy, and law, for two reasons. First, economic theory does a good job describing the logic of our larger economic system, which determines the fate of many animals. Second, the logic of economics has embedded within it a particular ethical framework which may be, unintentionally, the most significant intellectual opposition to the animal ethics movement. Most arguments against animal rights or animal welfare improvements are pragmatic arguments, not moral ones, and economic logic is the dominant mode of thought for pragmatic policymaking and legal analysis. Chapter 3 will address economic theory in some detail, but at this point it is sufficient to establish one of the main ways in which economic theory contributes to the marginalization of animal interests.

First, the dominant practice in economics has been to use an anthropocentric approach to all analyses.¹⁶ In environmental and natural resource economics, where one might expect scholars to break out of the traditional

¹⁵Robert Garner, "Political Ideology and the Legal Status of Animals," *Animal Law* 8 (2002): 77–91.

¹⁶Olof Johansson-Stenman, "Should Animal Welfare Count?," Working Papers in Economics (Göteborg University, Department of Economics, 2006), <http://ideas.repec.org/p/hhs/gunwpe/0197.html>.

human-centered models, it is extremely uncommon for scholars to engage in cost-benefit analyses that include any non-human inherent worth. Even in scholarship that explicitly considers animals, economists often assume that animal welfare has value only insofar as humans care about it.¹⁷ This limits the ability of economists to consider the ethical implications of animal issues, because as a discipline, we do not have the tools that would allow us to consider animal and human interests side-by-side.

One result of this feature of economic logic is that economists tend to focus on one kind of value that can be attributed to things: exchange value. In fact, there are other types of value that can be ascribed and that can influence economic behavior. We limit the ownership and trade of some things because they have a value of a kind that is best preserved when it is not sold (i.e. votes, people).¹⁸ Economists recognize these limits, but have yet to grapple with the fact that animals have an intrinsic value and legitimate economic interests worth recognizing. In order to shape an economy that is responsive to animals' interests, we need to start by developing ways of thinking and talking about economics that are consistent with basic animal ethics. Chapter 3 addresses these issues, and proposes a way forward that preserves the basic logic of economics while also incorporating the possibility of mutually beneficial interactions between humans and animals.

Economic Institutions

The second dimension of systemic economic marginalization of animal interests is in the institutional elements of the economy, most notably property laws, legal protections, and competitive markets. Of these three, property laws regarding non-human animals are among the most contentious. Consider that one of the most important contributions of environmental

¹⁷Tyler Cowen, "Market Failure for the Treatment of Animals," *Society* 43, no. 2 (January 1, 2006): 39–44, doi:10.1007/BF02687369; John McInerney, "Animal Welfare, Economics, and Policy" (Defra, 2004), <http://archive.defra.gov.uk/evidence/economics/foodfarm/reports/documents/animalwelfare.pdf>; Norwood and Lusk, *Compassion, by the Pound*.

¹⁸Elizabeth Anderson, *Value in Ethics and Economics* (Harvard University Press, 1995); Michael J. Sandel, *What Money Can't Buy: The Moral Limits of Markets*, repr. ed. (New York: Farrar, Straus and Giroux, 2013).

economics is the argument that well-defined property rights can protect non-human animal populations from human abuse. A good example is the case of the North American bison, whose near extermination and eventual recovery was due in part to private property incentives. Many fisheries that have been subject to over-fishing are now recovering as a result of property definition. The principle, which will be developed in Chap. 9 is clear: When people own other animals, they have an incentive to maintain the value of those animals or population. When ownership is not well-defined, and no person stands to gain from animal protection, the same animals may be neglected, or hunted/fished to the point of extinction. This problem is usually referred to as the “tragedy of the commons.”¹⁹ The same principle protects farmed animals from some harm. Standard agriculture practice is to provide farmed animals with some medicine, shelter from harsh weather, protection from predators, and abundant food. It is in the interests of farmers to follow these practices because it protects the value of the animals that they own.

Unfortunately, this basic economic principle of property ownership also encourages owners to cause harm to animals. Dog breeders have historically bred selectively for certain traits, to the detriment of the overall health of their animals. The economic value of the animal, in that case, is not perfectly aligned with the animal’s own interests. Similarly, the productivity of farmed animals is not identical to their welfare. Egg-laying hens, for example, are slightly more productive if given more space, but the cost of that space is prohibitive. This makes it worthwhile for farmers to place the hens in smaller, cramped environments, in order to gain the most value from their farms.²⁰ In the case of animals raised for experimentation, the economic value attributed to them by their owners runs directly counter to the animals’ well-being.

Understanding the incentives created by ownership of animals is essential, in fact, for understanding why animals are treated the way that they are. Treatment is dictated by economic function.²¹ Property law, in turn, gives owners the incentive to pursue that economic function with an eye to efficiency over and above other considerations. It is for this

¹⁹ Garrett Hardin, “The Tragedy of the Commons,” *Science* 162, no. 3859 (December 13, 1968): 1243–48, doi:[10.1126/science.162.3859.1243](https://doi.org/10.1126/science.162.3859.1243).

²⁰ Norwood and Lusk, *Compassion, by the Pound*.

²¹ O’Sullivan, *Animals, Equality and Democracy*.

reason that I will spend some time in this book discussing property law reforms in Chap. 11. However, property law is not the only economic institution that is important for animals. The impact of property law is moderated by a number of other institutional characteristics, including legal protections for animals and competitive markets.

Legal protections are often the focus of those interested in animal welfare. Protections range from large-scale regulations like the Endangered Species Act and anti-cruelty laws, to specific regulations of animal industries. These laws place strict limits on the powers enjoyed by citizens and animal owners, limiting ways that animals can be used in the economy. For example, in many countries it is illegal to engage in dog-fighting, because of the extraordinary harm done to the animals. This protection limits an otherwise profitable activity and somewhat moderates the economic value of some breeds of dogs. Moreover, the law is a way of recognizing that dogs and/or humans have non-economic interests that are violated by the practice.

The problem with the current system of legal protections is that they are highly arbitrary, offering significant protection for some species, like dogs, cats, and horses, and minimal protection for other similarly intelligent species, like pigs, cows, and goats.²² In short, the animals whose lives are more visible, and who enjoy a more favorable historical relationship with humans, fare well, while animals that have traditionally been food or “pests” fare less well. This inconsistency across species is reasonable if the laws are primarily anthropocentric—if they are based on the harm to humans from animal suffering. Such inconsistencies are not compatible with the most common theories of animal ethics, which ground animal worth in the animal, and not in human preferences. Moreover, these protections subject animals to the varying whims of the public. The species that are protected, and the extent of protection, varies by time and place, with a few favored animals getting far better treatment than others.

If legal protections limit the use of animals in specific ways, competitive markets for animal products also impose a kind of discipline on the owners of animals. This discipline, however, ensures that economic considerations are the primary criteria for determining how many owned animals will live. Because the markets for many animal products are highly competitive, there is little freedom for farmers or businesses to adopt alternative farming

²²Ibid.

or production techniques. The competition ensures that, except for small side-markets, the most efficient legal production methods will always be preferred. Pigs, chickens, eggs, and milk must be produced using confinement methods, because doing otherwise would ensure that the farmer's costs were so high that they could no longer remain in business. Cows must be slaughtered after two years because to allow them longer lives would add an unnecessary cost and compromise the quality of the meat.

There are very good reasons for using competitive markets to coordinate the production and consumption of food. Doing so ensures that the food system will be flexible, responsive to consumer demands, efficient, and innovative. This competition also ensures that there will be little or no consideration of animals' interests absent either a significant consumer movement, which will be considered in Chaps. 4 and 5, or significant regulation, which will be considered in Chaps. 6 and 7. There is good reason, therefore, that this competition is still subject to significant regulation in most countries, in order to limit risks to consumers. Regulations can protect consumers' interests when market discipline fails.

Economic institutions and economic theory are not the only determinants of animals' place in the economy. Human preferences for animal welfare, corporate attitudes toward ethical and environmental concerns, and broad social norms all play a large role. To some degree, however, these elements of our economic culture are shaped by our current institutions and theory. For this reason, it is worth looking outside of our current economic practice for the intellectual resources that will help reshape the economy. In particular, an interdisciplinary search of this type must start with the field of animal ethics.

Animal Ethics and the Value of Animals

Animal ethics is a relatively new area of reflection, which began in earnest with the publication of Peter Singer's *Animal Liberation*.²³ Since then, philosophers have approached the topic from a number of different perspectives. Singer was famous for pioneering a utilitarian approach,

²³ *Animal Liberation: The Definitive Classic of the Animal Movement* (New York: Harper Perennial, 2009).

while other scholars favor a deontological ethic.²⁴ There also is a considerable feminist literature on animal oppression.²⁵ Despite continued debate in the literature, a kind of consensus has emerged among scholars regarding the moral standing of non-human animals and the resulting obligations of humans. Moreover, this consensus stands in sharp disagreement with the standard anthropocentric approach of the economics discipline.

The first important conclusion of the animal ethics literature is that animals are worthy of moral consideration. This does not require that they be given the same moral standing as humans, but it does require that animals be considered to be the types of creatures who have interests that need to be weighed against human interests. There are varied bases for this conclusion. Singer rests his moral consideration of animals on the fact that many animals are able to experience pain and pleasure in a way that is similar to human beings. He argues, therefore, that utilitarian calculations ought to give some weight to animals' experiences. Work by ethologists like Balcombe²⁶ and Bekoff²⁷ have since added weight to his argument by documenting that many animals have more sophisticated emotional and intellectual lives than previously thought. Deontological theorists like Regan²⁸ and Francione²⁹ will reject utilitarian calculation, but will argue that humans ought to recognize the rights of animals, based on their status as beings that have life and interests that matter ethically for theological or philosophical reasons. Other scholars take even more varied approaches, but one conclusion remains the same: humans have an obligation to morally consider the interests of animals.

²⁴ Gary L. Francione, "Animals—Property or Persons?," in *Animal Rights: Current Debates and New Directions*, eds. Sunstein and Nussbaum (New York: Oxford University Press, 2006), 108–42; Andrew Linzey, *Animal Theology* (Chicago: University of Illinois Press, 1995); Tom Regan, *Empty Cages: Facing the Challenge of Animal Rights* (Lanham, MD: Rowman & Littlefield, 2005).

²⁵ Josephine Donovan and Carol Adams, eds., *The Feminist Care Tradition in Animal Ethics* (New York: Columbia University Press, 2007).

²⁶ Jonathan Peter Balcombe, *The Exultant Ark: A Pictorial Tour of Animal Pleasure* (Berkeley: University of California Press, 2011); Jonathan Balcombe, *Second Nature: The Inner Lives of Animals* (Palgrave Macmillan, 2011).

²⁷ Marc Bekoff, *The Emotional Lives of Animals: A Leading Scientist Explores Animal Joy, Sorrow, and Empathy—and Why They Matter* (Novato, CA: New World Library, 2008).

²⁸ Regan, *Empty Cages*.

²⁹ Gary L. Francione, *Animals, Property, and the Law* (Philadelphia: Temple University Press, 1995).

Because economics has developed as a discipline studying human commercial interactions, there has, traditionally, been little need for a consideration of animal interests. This has resulted in a methodological anthropocentrism—economists only consider the interests of humans when counting costs and benefits. There are good reasons for this: (1) humans, as political citizens, have an established ethical position in public policy decision-making, (2) human well-being and preferences are relatively well-understood, and (3) in most economic studies, humans are the only agents that are relevant. In some applications, however, this oversight is problematic, as when dealing with environmental or agricultural issues. In these cases, animal lives are at stake in the economic decision-making, and these lives are both morally and economically relevant.

If animal interests are to be taken seriously by economists, there must be substantial progress in understanding what species-specific animal well-being looks like. This could be a very fruitful area of collaboration with biologists. We know already, however, that animals have some well-understood natural interests. We can observe animals actively choosing to secure their own bodily well-being, prepare for the future, seek out relationships with other animals, procreate, and protect other animals from harm. It is also clear that many human uses of animals prevent them from exhibiting most of these natural behaviors. Additionally, though, economists must understand better the way in which our methods limit the types of values that we can talk about within the discipline. That is, we can say that an animal has value, but economists are only equipped to refer to a particular limited type of value that could be ascribed to an animal: exchange value.

Consider some of the different types of value that an animal could have. An animal could have some value to humans, either as a companion animal, a breeding animal, or because the animal's body was valuable as a commodity. The same animal might have value to a particular ecosystem, in which the life of the animal was important for preserving the existence of other plants and animals in a geographic region. Finally, the animal might have intrinsic value—value that is independent of the existence of other creatures. The exchange value (or market value) that economists are used to working with does not perfectly fit with any of these, though the market value will certainly reflect the first type of value,

as this will influence the demand for said animal in the marketplace. If there are no market failures operating in the market, then we would expect the exchange value of an animal (the price) to reflect well the marginal benefit of consuming, and marginal cost of producing, a particular animal at a particular time and place.

This exchange value, however, is necessarily anthropocentric. Given the structure of our economic institutions, it can only reflect the preferences of the human agents. This means that the interests of the animal being valued, and the interests other animals might have in the life of the animal in question, will only be reflected in the exchange value if humans altruistically consider animals' interests. This is not to say that market exchanges are necessarily problematic, only that our current mechanisms will systematically ignore animal interests. This bias, moreover, will be more serious for animals toward which humans have few altruistic feelings.

While the animal ethics literature clearly supports the idea that animals have some intrinsic value, there is no way for this intrinsic value to be reflected well in the price of animals in the marketplace. Many animal ethicists have argued that animals' status as property is, in fact, incompatible with an animal's intrinsic value.³⁰ In contrast, I will argue that there are ways in which we can alter property laws so that they preserve some of the economic and political benefits of individual ownership, while also better reflecting animals' moral status. It is important to note, however, that a market price can never be taken as a reliable expression of the full moral value of a living creature, even if the price reflects well the underlying market phenomena.

There are numerous ways that we can translate intrinsic value of animals into policy and law. The intrinsic value of human lives and bodies is recognized through careful regulation about the ways that people can be commodified and traded. Human bodies cannot be sold, but human time can. Basic human and civil rights cannot be traded, property rights can. Similarly, animal welfare regulation is a limited recognition that animal suffering matters. Endangered species protections are a public recognition

³⁰ Gary L. Francione and Robert Garner, *The Animal Rights Debate: Abolition or Regulation?* (New York: Columbia University Press, 2010); Francione, "Animals—Property or Persons?"

of the value of animal species. The creation of protected parks, forests, and habitats are a public recognition of the ecological value of particular places and biotic communities. Similarly, the value we place on people is translated into policy in the status that people are given in the legal and political system, and the rights that are protected. By reforming political and economic institutions to protect animals' interests, we express, better, their intrinsic moral value.

The remainder of this book will examine the economic logic, institutions, and policies that impact animal lives. In particular, the next chapter will examine the particular utilitarian logic of the discipline of economics. This, in turn, will motivate the critical analysis and policy research in the chapters that follow.

3

The Ethical Logic of Economics

The discipline of economics uses a particular utilitarian logic that has become the dominant language of policy in the worlds of economics, business, public policy, and often in law. Economic methods allow us to make difficult comparisons of costs and benefits. This allows economic theory to speak in a unified, accessible manner about the many options that a businessperson or policymaker have before them in any situation. In the areas of life where pragmatic arguments rule, economists provide the logic and the language.

It is for this reason that economics is at the center of the debate about animal ethics. While the ethical literature is rich with philosophical arguments about the worth of animals, there are very few ethical arguments in favor of factory farming or animal experimentation. The arguments that do arise in opposition to animal rights are often pragmatic, and economic, in nature. Farmers can document the costs associated with giving their animals better living conditions. Pharmaceutical companies can quantify the losses to our medical system if testing on animals was restricted. Firms that sell animal products or breed pets can argue that they would not be able to do business in a competitive market if they sacrificed any efficiency.

In 2013 Iowa Representative Steve King proposed an amendment to the US “farm bill” that would limit individual states’ ability to regulate animal treatment in agriculture markets. Though the amendment was ultimately defeated, it is worth examining the logic used to justify the legislation. In support, King argued that farmers needed predictability and stability because of the competition that they face. Any restriction on trade between states, he argued, would “stunt the growth of our nation’s economy and put America at a competitive disadvantage on the world stage.”¹ This kind of argument is common, and the logic is sound. Less trade often does mean less wealth and less efficient production. That such an argument can be made truthfully and yet completely ignore the interests of the animals involved points to a problem at the heart of the criteria used to justify economic policy.

In fact, the truth of King’s argument points to the most significant problem faced by animal activists today. The pragmatic logic of economics cannot be dismissed as an unhelpful academic language. This logic does a good job describing the forces and incentives of the actual economy. Moreover, the behavior that activists are trying to change is often constrained not by a lack of conscience, but by the economic and technological constraints of competitive markets. As such, it is the structure of the economy that determines animal treatment in the commercial world. For this reason, it is worth paying close attention to the way economists understand the world of commerce. Moreover, it is also worth thinking about how economic logic can both usefully describe economic life and speak clearly in favor of animal interests.

Human But Not Humane

The discipline of economics has developed as a way of understanding how and why we produce, consume, and trade goods and services. Often conceived as a predictive, rather than prescriptive, discipline, economists

¹ Steve King, “The Protect Interstate Commerce Act Offers State Trade Solution,” *National Cattlemen’s Beef Association*, accessed August 29, 2015, <http://www.beefusa.org/ourviewscolumns.aspx?NewsID=2620>.

have developed models that do a good job explaining how market valuations of goods and services come about. The basis for economic predictions rests on the assumption that human behavior is broadly purposeful and therefore understandable, given a person's preferences and options available to them. As noted earlier, this particular method, while useful for studying most behaviors in economists' purview, has some limitations.

For example, not all people have the same amount of power in the economy. Those with more wealth exert a stronger influence through their purchasing decisions, and those who control more capital exert a greater influence through their production decisions. Valuations of goods and services that result from economic analyses are not democratic in the same way that market valuations are not democratic. Economic power influences economic valuations in ways that are predictable, but ethically arbitrary. As a result, the preferences of beings that have little economic power—the poor—will get little weight, and the preferences of those with no economic power—non-human animals—will get no weight. In some cases, those with economic power will care about the interests of animals, and so animal interests will be reflected in the choices of those with altruistic preferences. However, the broad impact of altruism is limited. In those cases in which the interests of humans and the interests of animals conflict, as is true in most commercial uses of animals, the methods of economists, and markets, will disregard the interests of animals entirely.

A second limitation is the impotence of economic method in the face of oppression. Economic methods are designed to reflect the result of free exchange between legal equals. These methods do not include any tools to describe or quantify the interests of those who are not free to exchange or make economic decisions. As a result, economists' assumptions about economic activity being positive-sum for all participants breaks down in the case of those who are legally shut out of the economy, as with human ownership of animals.

Finally, economists have not done a good job accounting for the costs of economic activity borne by non-human actors. Absent a rich understanding of the ecological context of economic activity, there will be no way for scholars to understand the opportunity cost of agricultural development. The result, too often, is utilitarian calculations that appear to be

beneficial, even to the animals involved, until you properly account for the possible alternatives and non-human impacts.

Just as some have developed a critique of market mechanisms need to be rejected in the name of animal liberation,² so too, one could argue that economic methods are oppressive. This approach, however, ignores the fact that animal oppression is not a necessary characteristic of market mechanisms, nor is it a necessary element of economic method. In fact, with some revisions to the practice of economic analysis, economics can easily serve the interests of animals. Some of these methodological changes will be outlined in this chapter. Similarly, with some regulatory reform and legal changes, market mechanisms could also serve the interests of animals, and even encourage positive human-animal relations. The remainder of the book will focus on these necessary reforms.

Anthropocentrism

As a result of their study of production, consumption, and exchange, economists have focused on those costs and benefits that impact the agents under examination: humans. Just as market valuations are weighted toward the preferences of those with more economic resources, so too economic models rarely incorporate the interests of those who exert no power at all. With some rare exceptions,³ in fact, economists have usually engaged in policy analysis without any explicit regard in their modeling for animal welfare or animal interests. This practice has persisted for three reasons.

First, in most economic studies, animal interests are incidental. Economic work has focused on questions that have little direct impact on animal populations, and so it is reasonable to limit consideration of costs and benefits beyond those people who are directly impacted. If animals

² Bob Torres, *Making A Killing: The Political Economy of Animal Rights* (Oakland, CA: AK Press, 2007); David Nibert, *Animal Rights/Human Rights* (Lanham, MD: Rowman & Littlefield, 2002).

³ Charles Blackorby and David Donaldson, "Pigs and Guinea Pigs: A Note on the Ethics of Animal Exploitation," *Economic Journal* 102, no. 415 (1992): 1345–69; F. Bailey Norwood and Jayson L. Lusk, *Compassion, by the Pound: The Economics of Farm Animal Welfare*, (New York: Oxford University Press, 2011).

are indirectly parties, their interests are usually not central enough to warrant making the economic models even more complicated. For this reason, most economists have never been in a position to think critically about the anthropocentric assumptions in their models. This norm, in turn, has created a convention of anthropocentrism that may not be the result of a conscious choice on the part of individual scholars.

Second, economic institutions in industrialized countries are generally anthropocentric. Property laws give humans complete control over animals, and government agencies that deal with animals generally do so for the benefit of human populations. If market outcomes reflect well the preferences of those with economic resources, and economic institutions give power only to humans, then economic theories will only reflect the actual economy if they mirror these biases. Much of the work that economists do is empirical, not theoretical, and so the reigning institutions dictate the goals and incentives of people in the economy, and therefore the focus of econometricians.

Finally, there is an ideological component to economists' anthropocentrism. Economists have long tried to avoid doing ethics. In their unwillingness to base economic method on a strong normative foundation, scholars have tried to find an ethically neutral position from which to examine economic phenomena. Perhaps as a result, the highest good recognized in economic analysis is to produce, trade, or distribute goods and services in ways that make people materially better off than they were before. This is wealth creation or, in utilitarian terms, preference satisfaction. While economists will often recognize that there are other ways to value things, or other goals worth pursuing, the discipline has not embraced a formal way of including non-utilitarian values. Any work that sets itself apart by explicitly valuing the lives of other animals would fall well outside this "value-neutral" norm.

In philosophic terms, then, we can say that economic logic is anthropocentric and consequentialist, and that only consequences that are easily valued in market terms are given consistent consideration. Moreover, the methods used to achieve outcomes are of secondary concern. In public policy analysis, outcomes are neatly categorized into "costs" and "benefits" and measured in dollars to facilitate comparison of different types of impacts. This approach to policy analysis is powerful and useful because

most difficult policy decisions involve choices between different hard-to-compare worthwhile ends. But those goals that are not widely accepted, not easily valued in market terms, or simply not material in nature, are easily forgotten.

The anthropocentric approach that economists use is usually unproblematic. If the goal of the economist is to predict human behavior, and human behavior is anthropocentric, then this modeling choice is justified. Too often, however, even ostensibly predictive economic studies are then used to speak to issues of policy or decision-making. In the field of agricultural economics, studies that focus only on the anthropocentric costs and benefits of a particular technology or practice are often used to guide subsequent business decisions. By omitting the animal interests in the practice of economics, even when it is warranted in a particular study, scholars enable decision-making that ignores the interests of animals.

Blatantly problematic anthropocentrism arises when economists or policymakers engage in cost-benefit analysis that will result in policy recommendations. Any occasion in which we measure the benefits of agricultural trade, pharmaceutical patents, or land development without counting the cost to animals, we ignore a whole category of ethically relevant data. The ubiquity of just these types of omissions in academic and policy work is one of the reasons that animal interests are so rarely counted in actual policymaking, even among populations of people who profess to love animals. In order to correct this problem, however, it is not enough to condemn anthropocentrism. Instead, scholars must do the difficult work of developing credible non-anthropocentric methods of analysis.

The Failure of Altruism

One objection to economists' anthropocentric approach is that humans do not actually seem to be anthropocentric. That is, humans seem to have preferences that value the well-being of animals and the natural environment.⁴ Polls of consumers consistently indicate that they favor

⁴Olof Johansson-Stenman, "Should Animal Welfare Count?," Working Papers in Economics (Göteborg University, Department of Economics, 2006), <http://ideas.repec.org/p/hhs/gun-wpe/0197.html>.

higher animal welfare, and majorities say that they are concerned about animal use in agriculture, circuses, research, and sports.⁵ In a recent US poll, one-third of respondents were even willing to take the position that animals should have the same rights as people.⁶ Similarly, in Europe, a poll of consumers in 2003 found that majorities placed animal welfare near the top of the food-related priorities, majorities indicated that they would be willing to pay a premium for eggs from hens granted higher welfare, and most agreed that products should be better labeled.⁷ Apart from some studies of consumption patterns,⁸ these preferences will not impact most of the behaviors that economists study, but they will impact welfare calculations. If humans have a strong preference for animal well-being, then we can describe the harm done to animals in terms of an externality problem. Using this language, the practice of harming animals can be inefficient because of the psychic cost imposed on the humans that care about the animals' well-being. Moreover, human preferences for animal welfare can extend to animals that others own. A public good problem thus emerges: All animal lovers benefit from an improvement of an animal's well-being, but the cost of such an improvement is necessarily borne by the owner.⁹

It is for this reason that many economists have taken the approach of valuing animal welfare by measuring altruistic human preferences for animals. This practice follows a significant literature in environmental and ecological economics, which uses human preferences for environmental

⁵ Cary Funk and Lee Rainie, "Chapter 7: Opinion About the Use of Animals in Research," *Pew Research Center: Internet, Science & Tech*, accessed July 2, 2015, <http://www.pewinternet.org/2015/07/01/chapter-7-opinion-about-the-use-of-animals-in-research/>; Rebecca Riffkin, "In U.S., More Say Animals Should Have Same Rights as People," *Gallup.com*, May 18, 2015, <http://www.gallup.com/poll/183275/say-animals-rights-people.aspx>.

⁶ Riffkin, "In U.S., More Say Animals Should Have Same Rights as People."

⁷ "Report on Welfare Labelling" (London: Farm Animal Welfare Council, 2006), <http://webarchive.nationalarchives.gov.uk/20121007104210/http://www.fawc.org.uk/reports/welfarelabel-0606.pdf>.

⁸ Jae Bong Chang, Jayson L. Lusk, and F. Bailey Norwood, "The Price of Happy Hens: A Hedonic Analysis of Retail Egg Prices," *Journal of Agricultural and Resource Economics* 35, no. 3 (2010): 406–23; Jayson L. Lusk, F. Bailey Norwood, and J. Ross Pruitt, "Consumer Demand for a Ban on Antibiotic Drug Use in Pork Production," *American Journal of Agricultural Economics* 88, no. 4 (2006): 1015–33.

⁹ Tyler Cowen, "Market Failure for the Treatment of Animals," *Society* 43, no. 2 (January 1, 2006): 39–44, doi:10.1007/BF02687369.

goods to make economic valuations of the environment.¹⁰ Using this method, Norwood and Lusk have been able to measure the public good element of welfare improvements for some farm animals.¹¹ To do so, they conducted real auctions in which people bid money to move chickens from a conventional system to a free-range aviary system.¹² They find that the average amount of money that participants were willing to pay to improve the lives of 1000 egg-laying hens is \$57.¹³ This average estimate, however, is the result of highly variable valuations, where most people are willing to pay very little. This indicates that at least some of the population places a high value on animal welfare, and that current treatment of animals generates significant human harm.

Using this altruism-based approach to valuing animal welfare has some advantages. Because it does not place an “inherent” value on animal lives, and remains anthropocentric, it avoids the difficult problem of comparing the relative worth of human and animal well-being. Also, relative to other approaches recommended by environmental ethicists, it is the approach that is the most “stacked against” non-human animals, since animals are only given value through human preferences. As such, it rhetorically positions scholars to convince a skeptical audience that animal concerns are important.¹⁴

There are two main problems with this approach, however, one technical and one philosophical. First, when human preferences for animal

¹⁰ Ian J. Bateman, Kenneth George Willis, and Kenneth J. Arrow, *Valuing Environmental Preferences: Theory and Practice of the Contingent Valuation Method in the US, EU, and Developing Countries* (Oxford: Oxford University Press, 2001); Daniel Kahneman and Jack L. Knetsch, “Valuing Public Goods: The Purchase of Moral Satisfaction,” *Journal of Environmental Economics and Management* 22, no. 1 (January 1992): 57–70, doi:10.1016/0095-0696(92)90019-S; W. Michael Hanemann, “Valuing the Environment Through Contingent Valuation,” *Journal of Economic Perspectives* 8, no. 4 (October 1, 1994): 19–43.

¹¹ Norwood and Lusk, *Compassion, by the Pound*, Chap. 10; Jayson L. Lusk and F. Bailey Norwood, “Speciesism, Altruism and the Economics of Animal Welfare,” *European Review of Agricultural Economics* 39, no. 2 (2012): 189–212.

¹² The auctions that Norwood and Lusk ran were carefully designed. Participants had good information about the farming systems, and sacrificed real money. The participants were told that none of the animals that they moved from one system to another would be sold to them, ensuring that their valuations would reflect a “public good” valuation, rather than a “private good” value of animal welfare.

¹³ Norwood and Lusk, *Compassion, by the Pound*, 295–300.

¹⁴ Cowen, “Market Failure for the Treatment of Animals.”

welfare are measured, as Norwood and Lusk observe, the results are highly variable, which makes policy prescription difficult. Apart from some ethical standard that judges between the pro-animal preferences and the apathetic preferences, any decision regarding a costly pro-animal policy will leave one or the other group worse off. For example, if we used Norwood and Lusk's study to justify a tax on the egg industry and use the money to subsidize hen welfare, everyone who buys eggs would pay the cost, but only the small minority that is willing to pay for hen welfare would actually be made better off. Thus, human altruism, variable as it is, cannot politically justify any simple animal welfare proposal by itself. It must either be combined with some ethical principles or include a mechanism where the altruistic individuals compensate those who are less altruistic.

The second problem with the altruism-based approach is that it is difficult to defend philosophically as an ethical basis for establishing worth. For example, the values that humans place on animals do not just vary dramatically across humans, they also vary significantly by the type of animal in highly arbitrary ways. While there is little biological basis for human's preference for horses over cows and dogs over pigs, for cultural reasons, some animals receive far greater attention from humans than others. Unless it is actually the human preference which grants the value to the animal, the arbitrary nature of human preferences makes any use of these preferences for political decision-making unjust, since similar cases are treated in radically different ways.¹⁵

In fact, most ethicists agree that the basis for animal ethics lies not in human preferences, but in the animals themselves—either their ability to feel pain and pleasure, or their existence as a living creature. This means that, as useful as altruism models may be, these models will not accurately take into account the moral standing of animals in the economy. People's feelings of altruism toward animals are not just culturally arbitrary; they are also predictably ill-informed when it comes to an animal's actual well-being and place in an ecosystem. This is especially true for species that do not regularly come into contact with humans. While people might care little for life at the floor of the Pacific Ocean, the ethical value and life of such creatures should not suffer as a result. In fact, the reason why

¹⁵ Siobhan O'Sullivan, *Animals, Equality and Democracy* (London: Palgrave Macmillan, 2011).

we work to establish laws on principles of justice is to avoid the arbitrary exercise of power that rules in the absence of consistent principle. Using arbitrary whims of those in power to distinguish between those animals that have worth and those that do not, therefore, is problematic.

While it is relatively simple to expand economic theory to include altruistic human preferences in favor of animal interests, this approach ends up adding little of value in actual applications. The value attributed to animals via this method carries little ethical weight outside of an anthropocentric worldview. Moreover, the integration of animal interests into economic theory should allow us to approach these ethical trade-offs with additional precision and formality, not less, and the arbitrary nature of human altruistic responses prevents any formal precision.

How Do We Measure Progress?

Delving further into economic thought, one of the most fundamental barriers to integrating animal ethics into the standard economics toolset is in the ways that economists think about progress. In order to avoid embracing any strong (and thus contested) ethical commitments, economists have favored definitions of efficiency that make it difficult to describe economic oppression. For example, it is common for economists to use people's "willingness to pay" as a measure of value.¹⁶ This practice is reasonable from a descriptive standpoint, but doing so reinforces the inequalities in economic power that are present in today's world. People who are more wealthy will naturally have a higher "willingness to pay" for any item that they prioritize than those who are poor. Similarly, animals' position in the economy as property means that their interests are not recognized in any direct way in such valuations. This is one way that economists' "value-neutral" approach can easily become a tool to defend the reigning power structure and status quo.

Similarly, pareto efficiency, while theoretically useful and elegant, only allows economists to discuss avenues of progress that leave intact the current distribution of power and wealth. Norwood and Lusk illustrate

¹⁶Norwood and Lusk, *Compassion, by the Pound*, Chap. 7.

this aptly as they discuss the possibility of a non-speciesist cost-benefit analysis.¹⁷ The thought experiment that they use treats animals as economic agents, and examines ways in which animals' interests and human interests might be jointly pursued through exchange. While this experiment yields interesting conclusions about doing economic analysis in the presence of altruism, it incorrectly suggests that one could avoid speciesism while still leaving animals in a position where they have no bargaining power. Cowen proposes a similar thought experiment involving trade between animals and humans.¹⁸ And, like these other scholars, he observes that policy will likely only reflect human interests for the foreseeable future, and focuses his attention there. So, while it is possible that an animal would be willing to trade some food or medicine in order to receive more space to move around, as these authors suggest, even these thought experiments highlight that the starting bargaining positions have been set by centuries of speciesism. Animals are left with no space—literally or figuratively—in which to negotiate or pursue their interests.

In order to engage in economic analysis that respects animal lives and well-being, we must start, in some sense, with political protection. If animals were guaranteed consistent basic protections by law, and if their interests were given formal legal weight, then economic analysis could proceed as usual. At that point, with animals' political position properly asserted, questions of efficiency would come to the fore, and economic tools of exchange would be necessary for examining human-animal relations.

The Logic of the Larder

One argument in particular illustrates the difficulty of considering animal oppression with economic tools in the current context. The work of the economists discussed so far—Norwood, Lusk, and Cowen—all take the important step of evaluating modern agriculture based on whether it improves total animal welfare. In doing so, they posit that it is possible

¹⁷Ibid., 214–17.

¹⁸Cowen, “Market Failure for the Treatment of Animals.”

that a larger animal population would be ethically preferable, as long as those animals live in conditions that are better than death/non-existence.¹⁹ In fact, both sources argue that vegetarians and vegans might act unethically, because their diets decrease the number of animals being farmed. This traditional argument in favor of meat-eating—that our consumption enables animals to live, and is thus a benefit to them—is often called “the logic of the larder.”²⁰

Economic evaluations of animal agriculture will inevitably confront this fundamental dilemma of population ethics: the difficulty of choosing between larger populations living in worse conditions or smaller populations living in better conditions. Utilitarian ethical theories like those adopted by economists seem to imply that we must prefer a sufficiently large, minimally happy population to a smaller happier one. Philosophers have dubbed this the “repugnant conclusion.”²¹ In fact, there is probably no easy way to balance a dual concern for quality of life and quantity of life without, in extreme cases, violating a basic ethical intuition. This concern is not irresolvable in the case of animal agriculture, however, and the consequentialist logic of economics need not lead “logically” to a condemnation of vegan diets, despite claims to the contrary.²²

It should be noted, for example, that it is possible to engage in utilitarian calculus while avoiding the support of large populations of suffering animals. Blackorby and Donaldson demonstrate that flexible utilitarian weighting can avoid this problem while still adopting the formal rigor of the broader framework.²³ Specifically they argue for a “critical-level” utilitarianism that counts an animal’s utility as a contribution to total

¹⁹ Ibid.; Norwood and Lusk, *Compassion, by the Pound*, 188, 240.

²⁰ A summary and survey of the argument is found in Gaverick Matheny and Kai M. A. Chan, “Human Diets and Animal Welfare: The Illogic of the Larder,” *Journal of Agricultural and Environmental Ethics* 18, no. 6 (December 1, 2005): 579–94, doi:10.1007/s10806-005-1805-x. The argument is common, showing up in the specialized works discussed here, but also many broader works about food, see for example: Robert Paarlberg, *Food Politics: What Everyone Needs to Know*, 2nd ed. (New York: Oxford University Press, 2013), 123.

²¹ Gustaf Arrhenius, Jesper Ryberg, and Torbjorn Tannsjo, “The Repugnant Conclusion,” in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta, Spring 2014, 2014, <http://plato.stanford.edu/archives/spr2014/entries/repugnant-conclusion/>; Tyler Cowen, “What Do We Learn from the Repugnant Conclusion?,” *Ethics* 106, no. 4 (July 1, 1996): 754–75.

²² Norwood and Lusk, *Compassion, by the Pound*, 356.

²³ “Pigs and Guinea Pigs.”

welfare only when it passes a minimum threshold. While this approach cannot decisively solve the dilemma for consequentialist ethics, the logic of this model is illuminating. The argument between those who argue for meat consumption and larger populations of farmed animals are, in the framework of this model, working with a low critical-level utility threshold. Utilitarian critics of animal agriculture, on the other hand, are working with a higher critical-level threshold. In this sense, the debate is one in which each side places a different weight on quantity over and against quality of life, where a higher quality weight would be reflected by a higher critical-level.

Counting the True Cost

A more comprehensive response to the “logic of the larder” contention requires a broader vision of the agricultural and ecological system on which we depend. In order to use the discipline of economics to evaluate different consumer choices or food system possibilities, we need to appreciate the true cost of choosing consumer animal products. In fact, any economic attempt to weigh animal welfare must take into account two propositions. First, any human ownership and care of animals will usually displace a similar number of free-living animals, and second, it is usually in animals’ interests to be free-living in a suitable natural environment. I will explain and defend each proposition in turn, and then discuss the implications.

First, as Matheny and Chan²⁴ argue, the “logic of the larder” argument counts the value of farmed animal lives without considering the possibility of an opportunity cost. While farming animals requires little space using modern industrial methods, the animals raised in confinement do require fresh water and food that is scarce. A valid comparison would take into account the animals displaced by the farmland used to provide food for farmed animals, and also consider the land that would be used to raise alternative food for humans. In fact, even granting the extraordinary productivity of modern animal agriculture, the number of animals

²⁴“Human Diets and Animal Welfare.”

displaced by the farmland used to support farmed animals is similar to the number of animals raised for food. Matheny and Chan use estimates of biodiversity in agricultural land, prairies, and forests to calculate the impact of animal-heavy diets on the number of animals in existence. The animal life balance varies: they find that eating chicken and eggs has a net-positive number of animals in existence, while pork, beef, and milk have a negative impact on animal populations.²⁵

Their methods, however, significantly understate the ecological cost of animal agriculture. For the sake of comparison, Matheny and Chan only count mammals and birds displaced by animal agriculture, and only consider the impact of land use. They do not account for the contamination of fresh water supplies, and the resulting loss of species that rely on wetlands. Nor do they count the cost of displaced fish, amphibians, reptiles, and other animals, since data are inconsistent and comparisons across species are difficult. It is clear, however, that the total impact of animal agriculture includes a large net loss of living animals. This then is the “ecological opportunity cost”: any human method for raising animals is likely to displace a greater number of animals living in a natural ecosystem. This basic conclusion makes sense given what we know about ecology. Natural ecosystems tend to be both biologically dense and biodiverse. Humans only increase density in one area by robbing other ecosystems of important resources.

If we accept this ecological opportunity cost, then a second important question is raised. Do farmed animals live lives that are better than that of comparable free-living animals? If so, then it might be worth defending animal agriculture. If not, then the “logic of the larder” argument is easily dismissed. There are two broad reasons to think that life in human captivity is decisively worse for most animals. First, the knowledge we now have about animal welfare justifies a broad conception of animal flourishing. Animals have interests beyond the food and shelter that is commonly granted them in agricultural or experimental confinement. In fact, the natural inclinations and preferences usually include the sort of behaviors that would be normal if they were free-living animals in a natural habitat. Consider the minimal Animal Welfare Approved (AWA)

²⁵ Ibid.

standards, which include adequate nutrition, safety, and climate, as well as mobility, social interaction, natural feeding, and minimal genetic alteration.²⁶ While there are some human-controlled environments that allow animals to live lives that meet these broad goals, such environments are almost never cost-effective for animal farmers. In fact, as is documented in the first chapter, the normal life for an animal farmed for food or bred for experimentation is barren, short, and painful.

Moreover, even the security and protection from predators that human-owned animals enjoy does not compare favorably to life in a natural habitat once one considers the number of animals killed at a very young age in animal agriculture. The milk cows that are slaughtered at 3 or 4 years of age are long-lived compared to their counterparts that are farmed for meat and slaughtered before they are 1½ years old, or the veal calves produced as a by-product of the dairy industry, usually slaughtered before they are 6 months old. Similarly, pigs are usually killed before they are a year old, laying hens will sometimes be allowed to live 2 years, and chickens raised for meat will live only a few months. Finally, many chicks are killed promptly after hatching because they are the wrong sex for laying eggs. Given these short life spans, the threat of predation for an animal living in a natural habitat is no great comparative cost. Taken as a whole then, animal agriculture displaces a large number of free-living animals with a smaller number of farmed animals living in worse conditions. In the face of this observation, the “logic of the larder” defense of animal agriculture fails in any economic or utilitarian comparison that is based on animal well-being.

A New Economic Toolset

Economics, as a discipline, is not well-equipped to analyze policies or institutions that impact animals or work toward justice for animals. This need not be so. The problems that are outlined in this chapter so far can be remedied, and economics can be an important tool for understanding

²⁶“Animal Welfare Approved Standards,” *Animal Welfare Approved*, accessed October 28, 2014, <http://animalwelfareapproved.org/standards/>.

the place of animals in the economy. The twin barriers that emerge in this chapter are theoretical anthropocentrism and the narrow ecological scope of economic accounting.²⁷ These barriers are surmountable if we engage in economic analysis from a different set of starting assumptions.

First, a radical change in economic analysis could easily start with the assumption that animals are agents. If economists re-classified animals as beings that have ethically relevant interests, instead of resources to be managed, then anthropocentric modeling choices would have to be justified. Studies that ignored the impact of an agricultural practice on the well-being of animals would be in need of obvious revision, as would an urban development cost-benefit analysis that ignored the impact on the local environment. Moreover, this change in thinking would bring to the forefront the dearth of data about animal well-being, and our limited knowledge about animal preferences. In short, it would force economists to start asking the right questions.

A shift in thinking of this kind will also allow economists to better articulate the nature of the externality problem associated with animal use. As long as the value of animals and the environment is forced into an anthropocentric model, arbitrary human preferences will be the only metric of worth. However, the intractable nature of economic models that include altruistic preferences and the variability of human preferences make this route unhelpful. By classifying animals as agents, we can move from altruism-based models to frameworks that explicitly include animal interests as an intrinsic good. The externality conflict between humans and animals is then made more clear—many human uses of animals impose a severe cost on the animal's well-being and life. This conflict of interests must be addressed directly.

Explicitly counting animal interests does raise two difficulties that need to be addressed. First, there is the epistemological problem regarding animal preferences. We generally assume that humans can navigate the economic and political system as informed agents. Human choices, thus, reveal their preferences in a consistent fashion that justifies some

²⁷ Steven McMullen and Daniel Molling, "Environmental Ethics, Economics, and Property Law," in *Law and Social Economics: Essays in Ethical Values for Theory, Practice, and Policy*, ed. Mark D. White (New York: Palgrave Macmillan, 2015).

degree of human freedom. Animals are capable of making choices that reflect their interests in a comparable way. However, this does not mean that they can make informed economic or political decisions. It is impossible to avoid the fact that humans are in a permanent position of political power, and that animal interests must be protected by human choices.

Human choices regarding political and economic intuitions, then, must be made with our best knowledge about animals' interests. For this reason, it is plausible that humans will have to make decisions based not on individual animals' preferences, but on species-specific interests. These can be known through revealed preference studies, biology, and advances in ethological knowledge. This particular problem is a larger one for pro-animal policy and will be discussed in detail in Chap. 8.

A second difficulty that arises from thinking about animals as agents is the question of the relative worth of animal vs. human preferences. In the extreme, this would even require comparing animal and human lives, which cannot be done without making choices based on a particular, and inevitably contentious, standard. On one extreme, we could equally weight the utilities of humans and some group of physiologically complex animals. On another extreme, we could give all animals minimal weight relative to humans. While coming at a consensus about what kind of line should be drawn in such comparisons will be difficult, it is worth noting that such comparisons are already being made in policy on a regular basis. Laws that limit animal mistreatment, set animal diet guidelines, or put limits on animal experimentation are all placing the value of animal lives or animal interests above some human preferences. Without making this human-animal conflict explicit, however, we inevitably make such standards arbitrary, unpredictable, and weak. Moreover, analysis could proceed without making a firm commitment on the relative worth of animal interests, and studies could report how conclusions differ with different weights. Even this kind of work would make the cost of economic choices on animal populations much more explicit.

Once we start weighing animal interests in economic analysis, it immediately becomes necessary, as argued earlier, to consider the ecological opportunity cost of any economic use of animals. This is not just good economic logic—it also places a clear standard for ethically justifying animal use in an economic framework. We can argue that animal-human

interactions are mutually beneficial only if the animals are plausibly better off than they would be if they were living free in a natural environment.²⁸ By this standard most current arrangements between humans and animals can be clearly condemned as exploitative, while also leaving open the possibility of economic integration of animal populations as pets, or providing goods like wool. Holding economic policy to this standard of mutual benefit is not binding, of course. There are plenty of cases in which human relations do not meet a similar standard. That said, it is accepted within the economics discipline that violations of this standard require justification, and considerations of this kind can easily be expanded to include animal populations.

Conclusion

While this critique and proposal regarding economic thought will do little to change the lives of particular animals, it can provide a starting place for reform. Once animals are given weight in our economic thinking, it will be natural to count their welfare as a part of economic progress. Metrics like the Genuine Progress Indicator²⁹ (GPI) can be altered to better account for animal well-being. Legal reforms, moreover, will require economic reforms such as this in order to craft property laws, environmental laws, and food standards that are necessary for shaping a just economic system. Changing the place of animals in the economy will require more than just changing economic models, however. There are significant institutional barriers that must be addressed. Before addressing the need for legal reform, we will have to examine the institutional characteristics of the markets for animals in greater detail. This is the project of the following chapters.

²⁸Note, moreover, that must not compare the well-being of a domesticated animal to that of the same domesticated animal in a natural environment, since most such animals would not survive. Instead the opportunity cost logic demands that we compare to a similar non-domesticated animal born free in a natural habitat.

²⁹Genuine Progress, “Genuine Progress Indicator—Genuine Progress,” accessed August 31, 2015, <http://genuineprogress.net/genuine-progress-indicator/>. The GPI is an alternative to GDP for use in broad economic accounting. The goal of the data series is to include environmental, health, and quality of life measures not included in GDP.

4

Giving Consumers What They Want?

One of the best elements of market economies is the way in which producers quickly respond to consumer demand. Preferences that would be difficult to catalogue are efficiently met by companies that make consumer research and product development the center of their business. At the heart of this success is the ability of the economic system to make efficient use of a constant flow of information from the marketplace. Consumers share information about their preferences with every purchase, and firms share information about resource availability and cost through pricing decisions. Hayek famously argued that disaggregated decision-making was the only possible way to efficiently allocate goods in a complex society.¹ At the heart of his argument is the observation that information can be processed by a social order without any one mind controlling or knowing what is happening. It is the responsiveness of that system to consumer demands that constitutes its greatest success.

In light of the inhumane treatment of animals in our economy, however, we must examine that system anew. Who, in such a decentralized arrangement, is responsible for the ethical treatment of non-human animals? One common answer is that the economic system that we have

¹ F. A. Hayek, "The Use of Knowledge in Society," *American Economic Review* 35, no. 4 (September 1, 1945): 519–30.

created is an ethically neutral delivery tool, and that consumer demands are to blame. Perhaps if people wanted to treat animals well, then the market economy would respond.² If people enjoyed tofu as much as they enjoy chicken, then the animal-farming industry would shrink. While there is a clear truth to this simple answer, too often the argument stops here. Activist groups focus a considerable amount of effort on changing consumer preferences, with appeals that feature tragic pictures of farmed animals in industrial settings. Meat producers can, in turn, use consumer demand as their final defense, arguing that human consumption of other animals is natural and permanent.

The fact that many humans desire to use and consume the bodies of other animals for food and clothing is unassailable. Moreover, if the market economy is truly a neutral set of institutions that efficiently delivers whatever consumers demand, then it is possible to make a kind of defense of the market economy, and of animal agriculture. The moral responsibility for animal mistreatment and death would lie primarily with the consumer. Any regulation or limitation of animal industries would have to be justified on the grounds that the desires of consumers are not practical or not ethical.

For a number of reasons, however, this simplistic view of a consumer-driven economy is not accurate. Consumers, as a group, do have extraordinary power to determine the direction of market activity. The supply side of these markets, though, is not a neutral and passive player in the shaping of the market. In fact, the system in which we operate is biased toward certain types of production, and can only efficiently respond to a certain type of consumer desires. The result is that the ethical impulses of both consumers and producers are swamped by institutional pressure to orient behavior toward more conventional economic goals. For non-human animals, the result is that any human solidarity with other animals finds limited expression in the market.

²Webster makes this argument: that “a free market economy gives the consumers what they demand and, at the moment, most consumers, acting as individual shoppers, are not demanding higher welfare standards.” A.J.F. Webster, “Farm Animal Welfare: The Five Freedoms and the Free Market,” *Veterinary Journal* 161, no. 3 (May 2001): 229–37, doi:[10.1053/tvjl.2000.0563](https://doi.org/10.1053/tvjl.2000.0563).

Consumer Preferences and the State

As discussed in the previous chapter, there is good evidence for a broad, though not universal, desire for non-human animals to be treated humanely.³ Norwood and Lusk's willingness-to-pay experiments demonstrated that many consumers were willing to sacrifice some wealth for animal well-being, and a few were willing to pay large sums of money.⁴ Their experiments, however, designed to elicit "pure" valuations, do not always reflect the actual options that consumers face when making their consumption decisions. In order to measure a consumer's willingness-to-pay, they gave their participants considerable education about agriculture practices and offered a real-life clear opportunity to improve the lives of specific animals. While many people might have a preference for humane treatment, they are usually not well-informed about the fate of animals in the food system, and the issue might not be of great importance to them. Whereas Norwood and Lusk found 60% to 70% of participants were willing to pay some money to help animals, surveys of uninformed consumers offer varying results.⁵

The institutional characteristics that influence a consumer's desire for humane animal treatment, or their demand for conventional animal products, are numerous and complex. At the minimum, it ought to be noted

³Olof Johansson-Stenman, "Should Animal Welfare Count?," Working Papers in Economics (Göteborg University, Department of Economics, 2006), <http://ideas.repec.org/p/hhs/gun-wpe/0197.html>; Jae Bong Chang, Jayson L. Lusk, and F. Bailey Norwood, "The Price of Happy Hens: A Hedonic Analysis of Retail Egg Prices," *Journal of Agricultural and Resource Economics* 35, no. 3 (2010): 406–23.

⁴F. Bailey Norwood and Jayson L. Lusk, *Compassion, by the Pound: The Economics of Farm Animal Welfare* (New York: Oxford University Press, 2011).

⁵Fillip Vanhonacker et al., "Segmentation Based on Consumers' Perceived Importance and Attitude toward Farm Animal Welfare," *International Journal of Sociology of Agriculture and Food* 15, no. 3 (2007): 91–107; Norwood and Lusk, *Compassion, by the Pound*; Susan M. Chilton, Diane Burgess, and W. George Hutchinson, "The Relative Value of Farm Animal Welfare," *Ecological Economics* 59, no. 3 (September 20, 2006): 353–63, doi:10.1016/j.ecolecon.2005.11.003; Richard M. Bennett and Ralph J.P. Blancy, "Estimating the Benefits of Farm Animal Welfare Legislation Using the Contingent Valuation Method," *Agricultural Economics* 29, no. 1 (2003): 85–98, doi:10.1111/j.1574-0862.2003.tb00149.x; Giuseppe Nocella, Lionel Hubbard, and Riccardo Scarpa, "Farm Animal Welfare, Consumer Willingness to Pay, and Trust: Results of a Cross-National Survey," *Applied Economic Perspectives and Policy* 32, no. 2 (June 1, 2010): 275–97, doi:10.1093/aep/p009.

that consumers are awash in advertising and public relations efforts that are designed to sway their preferences. In addition to the routine product advertisements common in the grocery industry, and the rampant advertising by restaurants, US consumers are also treated to government programs that tax many animal industries to fund centralized promotion efforts. These “check-off” programs fund some of the most famous nationwide meat, dairy, and egg marketing campaigns.⁶ The annual budgets for such programs are significant. Consider Dairy Management Inc., the main recipient of dairy check-off funding. In 2012 their budget was \$199 million, which was spent almost entirely on marketing and product development.⁷ While the effectiveness of these broad efforts is difficult to evaluate, at minimum, the industries believe that such campaigns sway consumers to demand more animal products.

In the context of preference-altering marketing, it is difficult to know whether consumers are leading the agricultural industries, or the reverse. A truly effective marketing campaign, if it can create demand for a product, could actually make consumers worse off, by some standards, if the product mix that they purchase yields less well-being.⁸ Given the well-documented health and environmental costs of animal consumption, and the unbalanced focus of this advertising on animal products, this is a very realistic possibility.⁹ Consumer demand is no defense for an industry that creates and expands that demand through government-sponsored advertisements, especially if the industry makes customers less healthy and causes substantial harm to the environment.

Advertising campaigns are only part of the institutional push toward consumption of animal products. Government subsidies make animal products far cheaper for consumers than would be reflected by a true accounting of resources used. David Robinson Simon calculated the

⁶David Robinson Simon, *Meatonomics: How the Rigged Economics of Meat and Dairy Make You Consume Too Much—and How to Eat Better, Live Longer, and Spend Smarter* (Newburyport, MA: Conari Press, 2013).

⁷“Dairy Management Inc. 2012 Annual Report,” Annual Report (Dairy Management Inc, 2013), <http://dmistorage.teamdairy.com/dairyorg/index.html>.

⁸Michael Prewitt, “The True Worldliness of Advertising Apologia Pro Vita Mea,” *Theology Today* 60, no. 3 (October 1, 2003): 384–96, doi:10.1177/004057360306000308.

⁹Simon, *Meatonomics*.

aggregate impact of government agricultural subsidies in the United States, and found that 63% of farming support is directly or indirectly aimed at animal products, compared to just 2% toward the “specialty crops” that make up a healthier diet: fruits and vegetables.¹⁰ Much of this support takes the form of subsidies for corn and soybeans that keep the price of animal feed low and artificially cheap or free water, which is used in vast quantities to produce meat and dairy.¹¹

State efforts to advertise, and then subsidize, animal products certainly results in higher consumption of meat, fish, dairy products, and eggs in countries like the United States. It is not clear that such efforts, however, excuse consumers from moral complicity in harm to animals. Few individuals are under the illusion that they can eat meat without an animal dying somewhere along the supply chain, even if government policy makes meat more attractive. Widespread government support for a culture that glorifies and encourages the consumption of animals may, however, justify significant government efforts to discourage such consumption in the future. Some policy options will be evaluated in the next chapter.

Consumer Information

Government support for animal products, however, is only part of the systemic bias toward inhumane treatment and commodification of animals. One of the primary barriers to ethical action on the part of consumers is the difficulty of obtaining clear and relevant information. Given the centrality of consumer information to the defense of the market mechanism, this is important. Markets function as efficient mechanisms for meeting consumer demands only if consumers have the information they need to make relatively informed choices between products. Some types of

¹⁰Ibid.

¹¹James McWilliams, “Meat Makes the Planet Thirsty,” *New York Times*, March 7, 2014, <http://www.nytimes.com/2014/03/08/opinion/meat-makes-the-planet-thirsty.html>; A. Y. Hoekstra and A. K. Chapagain, “Water Footprints of Nations: Water Use by People as a Function of Their Consumption Pattern,” *Water Resources Management* 21, no. 1 (June 27, 2006): 35–48, doi:10.1007/s11269-006-9039-x.

information are indeed readily available. Consumers are greeted with an abundance of information about the quality, quantity, and price of the goods that they buy. In relatively competitive markets, moreover, the price of goods provides a lot of information about the value of the resources expended to deliver the product (after accounting for subsidies).

There are other types of information that are relevant to consumers who want to make ethical decisions, but are not readily available. It is very difficult to find out whether a product was developed using animal experimentation. It is almost impossible to accurately calculate a carbon footprint comparison among consumer goods. Moreover, for animal products, it is difficult to know much about the conditions in which the animal lived prior to being killed. There are a number of third parties that have created avenues for collecting and disseminating such information, but their range and reach is severely limited.¹² Even with standardized ingredient lists, finding out which products contain animal products and which do not can be extremely difficult for those who do not have advanced knowledge of biochemistry.

The lack of information about specific products is made even worse by the general ignorance about production processes for most consumer goods. The whole structure of the modern economy makes it difficult to know how goods are produced. First, the vast abundance and variety of goods available makes it impossible for consumers to keep track of more than a small subset of the goods available. Additionally, the dramatic specialization of production for consumer goods makes knowledge about manufacturing and transport highly technical. Finally, there is often a literally vast distance between consumers and the centers of production, since many goods are manufactured far from the point of purchase. The result is that it is normal for consumers to know little to nothing about who produced the goods they purchase, where they were produced, or how.

Long supply chains and consumer distance make it impossible for consumers to be in any kind of relationship with the producers of the goods and services that they purchase. For most individuals, only the smallest

¹²Jeff Leslie and Cass Sunstein, "Animal Rights Without Controversy," *Law and Contemporary Problems* 70, no. 1 (January 1, 2007): 117–38.

fraction of their consumption goods were produced, or even sold, by someone that they are acquainted with. Customers may have strong opinions and loyalty toward certain retailers, and possibly some brands of products, but are usually disconnected from most of the thousands or millions of individuals and organizations that produce their goods. The result is that exchange is, almost as a rule, an impersonal affair, with laws, rather than personal accountability, dictating moral behavior.

It is into this information void that some products are advertised as “humane” alternatives to conventional offerings. These products are designed to give consumers more information about the products that they buy, but do so poorly. Because it is difficult for consumers to know what constitutes humane vs. inhumane treatment for animals with which they have little contact, a “cage-free” or “humanely raised” label has little real information content for most consumers. Even the certification bodies that create expert criteria for humane animal treatment have limited effect, given the very small percentage of animal products that undergo inspection or certification and the widely differing standards between organizations and labels.

Recent debates about animal welfare in the USA have pushed this information gap to a political tipping point. In order to share common animal agriculture practices with consumers and regulators, activists have regularly gone undercover with cameras to photograph, film, and publish standard practices and cases of abuse. The persuasive media that these organizations have produced has proven effective enough to warrant reaction from industries. Animal producers have pushed for legislation in many US states that would criminalize the unapproved documentation of the conditions in which animals are raised and killed. Starting in Kansas in 1990, many such state laws were proposed in 2011 and 2012, with some success, despite much opposition. These “ag-gag” laws are a vivid illustration of how much is at stake for producers and consumers with information about even routine production practices.

The result of this information void is important: If we expect producers to be held accountable for their production processes by consumer demand, there must be some channel of reliable information to consumers. In the absence of such information, there can be no expectation of any kind of ethical accountability in production methods. The ability

of the market to meet consumers' demands is therefore limited to a certain category of demands. The market can reliably meet a preference for lower prices, more efficient production, or a change in product attributes. Other ethically relevant information, however, that corresponds to well-documented consumer preferences, seems to be difficult to translate into changes in products.

Some scholars have pointed out that this lack of information is a central part of the commodification of animals. Torres summarizes this view well, arguing that any object that functions as a commodity must have a value that is independent of the history of that object.¹³ Any relationships between people or animals that might be relevant to the existence, location, or attributes of the commodity are secondary to the marketable qualities and the exchange value. In this sense, commodification is a process of flattening the world into only a few commensurable dimensions. Just as the commodification of minerals or grains can hide cases of abuse of workers in the supply chain, the commodification of animal products can also hide necessary violence to animals.

This flattening, moreover, produces obvious cost savings. The standardizing process of commodification makes economic complexity tractable. We would not be able to function in a world with the vast interdependence that we see in the global economy without this process of commodification. The cost of such a process is very real, however, when the information that is lost prevents individuals from behaving ethically across the supply chain. The very presence of entrepreneurs who are able to forgo the gains from specialization and commodification by producing individualized, information-rich animal products demonstrates that there are real preferences on the part of consumers and producers to retain and act on this information. The substantial cost of retaining this information, however, prevents these markets from expanding.

One explanation for the failure of competitive markets to respond to this consumer demand is that there is an asymmetric information problem limiting the functioning of the normal market mechanism.¹⁴

¹³ Bob Torres, *Making A Killing: The Political Economy of Animal Rights* (Oakland, CA: AK Press, 2007), Chap. 2.

¹⁴ Steven McMullen, "Is Capitalism to Blame? Animal Lives in the Marketplace," *Journal of Animal Ethics*, forthcoming.

The nature of the problem rests on the complicated supply chain that has become a standard part of efficient production. There is no inexpensive mechanism through which a producer could credibly communicate humane production methods to consumers. In a small local market, a consumer could have access to the methods and location of a producer. In this case, a claim that animals were “humanely raised” could be credible and verifiable. In an environment where even retailers do not have access to the identity or location of most farmers that supply them with food, however, it is not possible for a producer to adopt more humane methods and profit from them through higher demand.

Consider the plight of a hypothetical firm that decided to give egg-laying hens a more expensive natural habitat. The cost increase over the cheapest eggs on the market would be considerable, but, more importantly, such eggs would be far more expensive even than competing eggs that are labeled “free-range.” Because a consumer is unable to tell the difference between a producer that is legitimately committed to humane methods and their competitor that will adopt the minimal requirements for the “free-range” label, they have no reason to spend the extra money on the more humane product. The hypothetical ethical firm will quickly go out of business.

Retailers that desire to sell humane animal products, such as Whole Foods has recently tried to do in the United States, must forgo the efficiency gains that come with a diversified and flexible supply chain. They must instead either control the entire supply chain or fund considerable verification and documentation efforts. This can be a costly endeavor. Chipotle Mexican Grille, a restaurant chain in the USA, recently had to stop serving pork in a third of their restaurant locations when a major pork supplier failed to meet their ethical production standards.¹⁵ If a company accepted these additional costs, they would still face the prospect of communicating the difference between their more expensive product and those of their competition. Given these barriers, it is easy to see why more humane animal products have not gained the market share that one might anticipate given the widespread support for humane animal treatment.

¹⁵Candice Choi, “No Carnitas? Chipotle Stops Serving Pork at Hundreds of Restaurants,” *Christian Science Monitor*, January 14, 2015, <http://www.csmonitor.com/Business/Latest-News-Wires/2015/0114/No-Carnitas-Chipotle-stops-serving-pork-at-hundreds-of-restaurants>.

Empirical evidence about consumer demand for humane animal products provides support for this diagnosis of the problem. Nocella, Hubbard, and Scarpa compare data from across different European countries, and find that consumers' willingness to pay for animal-friendly products depends strongly on the degree of trust that those consumers have in the available certification processes.¹⁶ When consumers trust the labeling system, they are more willing to pay more money for the humane alternative products. The obvious constructive role that governments can play in certifying and regulating the production processes for animal products, however, would require significant changes in policy in most countries.

The possibility of more ethically produced animal products is thus a good example of a well-documented type of failure in markets where producers are unable to credibly communicate quality to consumers.¹⁷ The result is predictable. Producers of high-quality products will be pushed out of the market by low-quality producers. Similarly, consumers who have a strong preference for quality will exit the market rather than purchase from a low-quality producer. In short, the absence of credible information causes the market to break down, leaving few alternatives for customers. What is not well-appreciated is that a whole category of ethically relevant information, information that consumers need to be able to hold firms accountable, is of this difficult-to-communicate nature. The result is that consumer activism is difficult on all fronts because of a system that prioritizes information relevant to a narrow definition of efficiency.

Norwood and Lusk discuss this asymmetric information problem, and argue that the presence of cage-free eggs in many grocery stores across the country shows that the market can overcome this challenge.¹⁸ On the contrary, this example proves the rule. While cage-free production facilities are probably a small improvement for hens, the improvement is minimal, and still falls far short of what most customers imagine the life of an egg-laying hen ought to be. Firms are able to sell these cage-free eggs at a significantly higher profit margin, adopting the "humane" label, precisely because consumers are not able to easily evaluate the quality of hen environments.

¹⁶ Nocella, Hubbard, and Scarpa, "Farm Animal Welfare, Consumer Willingness to Pay, and Trust."

¹⁷ George A. Akerlof, "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism," *Quarterly Journal of Economics* 84, no. 3 (August 1, 1970): 488–500, doi:[10.2307/1879431](https://doi.org/10.2307/1879431).

¹⁸ Norwood and Lusk, *Compassion, by the Pound*, 329.

Even within the “free-range” and “cage-free” categories, there is an asymmetric information problem that drives out all but the least humane producers.

Norwood and Lusk make the rhetorical point that we face information barriers as consumers all the time, buying gasoline without knowing its contents and electronics that might not work.¹⁹ Tellingly, they fail to note that gasoline quality standards are actually tightly regulated for just this reason, and that technology companies have to offer generous warranties to their customers to attract buyers. Information failures are rampant in consumer markets, and customarily they are corrected by government action, product warranties, or both. The lack of government correction for this particular problem can only be attributed to an anthropocentric regulatory regime. We strictly regulate consumer goods that pose any danger to humans. The hallmark of our moral failure in this case is that we ignore similar harms to other animals, and ignore human ethical relations to other animals. The particular details of animal industry regulation will be discussed in greater detail in later chapters.

Systemic Bias

This systemic bias toward goods whose primary virtues are visible quality or low cost is but one part of a larger bias in consumer capitalism toward a certain type of production. While the mass-production of homogenous goods is often cost-effective, it is especially efficient in a system that relies on large-scale marketing to consumers.²⁰ Goods that can be produced in mass, stored and shipped easily, and delivered with predictable quality are also the products that can be easily advertised in mass markets. In other words, there are significant returns to scale in advertising. Heath and Potter argue that this creates a bias toward “medium-sized dried goods” instead of intangible goods and public goods that benefit many people.²¹ Our consumer

¹⁹ Ibid.

²⁰ Steven McMullen, “Waste and Efficiency in a Consumer Economy” (unpublished manuscript, Hope College, 2014).

²¹ Joseph Heath and Andrew Potter, *The Rebel Sell: Why the Culture Can't Be Jammed* (New York: HarperCollins, 2004); Andrew Gibson, “Ideas and Practices in the Critique of Consumerism,” *Environmental Philosophy* 8, no. 2 (2011): 171–88, doi:[10.5840/envirophil20118219](https://doi.org/10.5840/envirophil20118219).

economy does not need to create desires in consumers in order to guide the population in a certain direction. It is enough that the direction of mass-produced consumer goods has far greater commercial returns than other alternatives. The result is clear: We have a vast variety of options that are mass-produced and subject to mass-marketing, while consumers who seek other kinds of products find fewer options at higher prices.

Our modern market economies have a dangerous set of characteristics: government support for animal products, strong advertising for animal consumption, limited ethical information, and a systemic bias toward homogenous mass-produced goods. Given these, it is difficult to hold to the thesis that markets meet consumer demands in an ethically neutral fashion. On the contrary, competitive markets are particularly good at pursuing a particular kind of ethical goal: a kind of resource stewardship that focuses on low-cost production. If efficient, low cost mass-production was an ethically neutral goal, then perhaps we could simply alter the state-sponsored advertising of meat, and then conclude that market systems were not at fault.

Efficiency is not, however, an ethically neutral goal. In the best of circumstances efficiency is a virtue, since it expands opportunities to provide goods and services at a lower resource cost. In the case of animal industries, steering customers toward more efficiently produced products is in direct conflict with consumers' ability to act ethically. Indeed, this efficiency has too often been in direct conflict with the well-being of animals. As such, a system that is biased in favor of a particularly harmful system of animal mistreatment cannot be excused as incidental. Our market economy, as currently configured, is a central cause of animal suffering.

Consumer Complicity

In the face of a system that makes it difficult, though not impossible, to act as an ethical consumer, to what degree are consumers to blame for animal suffering? Is it reasonable to excuse consumers for their purchasing decisions? The case for consumers bearing some moral responsibility is somewhat complicated by the complexity of the system in which consumers are acting. For example, Michael Martin suggests that consumer

complicity in animal cruelty is limited at best, because of the questionably causal relationship between the act of consumption and animal cruelty.²² He concedes that abstaining from support of animal industries would constitute a form of protest, but he finds it difficult to identify any moral obligation to do so, even if one concedes that animals are treated quite badly in these industries.

In fact, Martin's argument is only the start. There are a number of characteristics of modern consumer markets that diffuse responsibility across a large number of agents. Albino Barrera does a particularly good job outlining and considering the complexity of modern market decisions.²³ Following his work, some of these will be considered here. First, the harm done to animals is ethically overdetermined. Following the death of a particular cow, there can be 300–500 pounds of meat consumed in one form or another, in addition to the skin, some bones, and other parts of the animal that will be used for various purposes. Thus it is reasonable to assume that at least 800–1000 final consumers could purchase parts of a single animal. Moreover, those consumers might be third or fourth in line, since the animal is likely purchased first by the farmer, second by a meat processing company and distributor, and third by a retailer or wholesaler, and perhaps by a restaurant as well. Each of these intermediate and final agents could claim some minimal causal claim on the death of the single cow.

Second, none of the choices to purchase part of the aforementioned cow are independent. Each is dependent on the other choices, so that the consumers could be said to “cause” the decision of the retailer, just as the retailer's decision was a necessary precondition for the final consumer's actions. In a long supply chain, these types of interdependent choices are everywhere: No agent would have made their choice without the full support of many other agents' choices. In the face of such interdependent action, the moral responsibility, such as it is, must be shared across the population of agents.

Finally, some kinds of harmful decisions are accumulative in nature. There is no single consumer choice of cheap vs. expensive pork that pushes

²²Michael Martin, “A Critique of Moral Vegetarianism,” *Reason Papers* 3 (1976): 13–43.

²³Albino Barrera, *Market Complicity and Christian Ethics* (Cambridge: Cambridge University Press, 2011).

a producer toward less humane production techniques. In aggregate, consumer decisions and systemic pressures do push producers toward a particular business model. However, no one consumer has the power to reverse their decision and then have a real individual impact on the production decisions that are so harmful to animals. The best they can do is support other producers, and have only a small probabilistic impact on any decisions about inhumane production methods.

These three characteristics of agricultural markets—overdetermination, interdependence, and accumulative harms—together, have the effect of diffusing responsibility for harm to animals across most of the market participants. This diffusion does not make the outcome more just, but it does significantly alter the way people make decisions. When people can see a direct consequence of their actions, as in Norwood and Lusk's experiments,²⁴ they are far more likely to express a preference for ethical action. In the face of diffuse responsibility and unclear causation, consumers are more likely to fall back on other decision criteria.

Falk and Szech illustrate this moral ambivalence in the face of diffuse responsibility in a incisive study of moral actions within market mechanisms.²⁵ In an experiment designed to test the impact of market organization on ethical behavior, they gave participants the opportunity to save the life of a mouse under different sets of circumstances. One group was given a simple choice between saving a mouse and accepting ten euros. A second group was placed in a bargaining position where they could trade away (sell) the life of a mouse for monetary payment from a single additional participant (the buyer) who received money only if a trade occurred. A third group participated in a market with multiple buyers and sellers. They found that participants in either the bilateral or multi-lateral market condition were more likely to trade the life of the mouse for some amount less than or equal to ten euros.

These researchers further investigated the amount of money it would take for individuals acting alone to sell the life of the mouse with the frequency of market participants. They found that only payments above

²⁴Norwood and Lusk, *Compassion, by the Pound*.

²⁵Armin Falk and Nora Szech, "Morals and Markets," *Science* 340, no. 6133 (May 10, 2013): 707–11, doi:[10.1126/science.1231566](https://doi.org/10.1126/science.1231566).

47 euros would elicit action similar to that of market participants selling for less than ten euros.²⁶ Their interpretation of these results is clear—the market mechanism significantly increased participants’ willingness to sacrifice the life of an animal for monetary gain. Their explanation for this phenomenon is threefold. First, markets diffuse responsibility for the life of the mouse across two or more individuals.²⁷ In such a situation participants are far less likely to perceive an individual duty to prevent harm to an animal.

Second, Falk and Szech hypothesize that participation in markets for animal life might communicate the content of social norms to the participants. The mere presence of a market for the lives of mice could communicate a social acceptance for the practice of such trades. Moreover, upon seeing other participants placing relatively small monetary values on the life of a mouse, individuals might decide that any moral objections to the practice are inconsequential, at least in the eyes of their peers.²⁸ This effect would be present in any market for animals, but will be especially strong in large complex markets with many participants. Furthermore, the power of this effect could grow as participants engage in repeated actions in a market.

Finally, markets might provide a strong materialistic framing for the decision.²⁹ If participants are trained to consider bargaining strategy and material gain when participating in market settings, these points of focus could crowd out moral reasoning about the appropriateness of the trades under consideration. Participants might enter the process thinking, “How can I get the most for my money?” instead of asking “Is this action morally acceptable?” With a different framing, absent the market

²⁶Ibid.

²⁷J.M. Darley and Bibb Latane, “Bystander Intervention in Emergencies: Diffusion of Responsibility,” *Journal of Personality and Social Psychology* 8, no. 4 (1968): 377–83, doi:[10.1037/h0025589](https://doi.org/10.1037/h0025589); Bibb Latané and Steve Nida, “Ten Years of Research on Group Size and Helping,” *Psychological Bulletin* 89, no. 2 (1981): 308–24, doi:[10.1037/0033-2909.89.2.308](https://doi.org/10.1037/0033-2909.89.2.308).

²⁸Urs Fischbacher, Simon Gächter, and Ernst Fehr, “Are People Conditionally Cooperative? Evidence from a Public Goods Experiment,” *Economics Letters* 71, no. 3 (June 2001): 397–404, doi:[10.1016/S0165-1765\(01\)00394-9](https://doi.org/10.1016/S0165-1765(01)00394-9).

²⁹Samuel Bowles, “Is Liberal Society a Parasite on Tradition?,” *Philosophy & Public Affairs* 39, no. 1 (January 1, 2011): 46–81, doi:[10.1111/j.1088-4963.2011.01201.x](https://doi.org/10.1111/j.1088-4963.2011.01201.x).

structure, the moral nature of the question might come to the fore, and elicit different responses from the same people.

The arguments and experiments discussed here can help us understand some of the influences on consumer action, but the counterfactual is still elusive. If we want to assign some causal effect to consumer preferences or to the institutional elements of the market we would have to observe a world in which these things operated differently. In the absence of such data, we can only conclude that the structure of the marketplace has some significant influence on the way that people behave, and on their ability or willingness to make ethical choices.

Moral Alienation

The particular blend of institutions we see in this domain have created a kind of moral alienation. Consumers are left with little of the information or opportunities that would need to be in place for them to act consistently in an ethical fashion. This alienation is common throughout our increasingly specialized economy. Two characteristics define such alienation. First, an economic system in which individuals play increasingly specialized roles increases the number of independent actors involved in the production and consumption of each good or service. Long supply chains and interdependent industries are the norm. Second, decision-making in market economies is highly decentralized, so that the extensive interdependence is not attributable to any single intelligence.

The hallmarks of moral alienation are (1) a strong separation between moral choices and the resulting consequences, and (2) a lack of opportunity to make alternative choices. Within firms, bureaucracies develop around narrow institutional goals. In consumer markets, product availability and advertising follow path-dependent routes to homogenous outcomes. The result is producers who are individually free only to act morally within the narrow scope of their organization, and consumers whose choices are limited to many brands offering few options. Only at great cost can an individual defy these structures, produce differently, consume ethically, or separate themselves from the shared culpability of destructive practices.

Consumer complicity in animal harm is, on the surface, straightforward: consumers buy animal products and create a market for animal suffering. In practice, it is difficult to pinpoint blame for market action on any particular participants, consumers included. Consumers' actions are heavily influenced by factors outside of their control or knowledge, including the very structure of the market that they are participating in. This does not absolve consumers of any ethical obligations, but it should provide some motivation for a renewed focus on structural changes and public policies that can encourage ethical action. The following chapter will analyze a number of individual and public remedies that could change the relationship between consumers and animals.

5

Ethical Consumer Action

Creating space for humane consumer action is difficult in an economy where the culture and institutions are so strongly oriented toward human consumption of other animals. Nevertheless, consumers play an important role in the market, and have real power to affect change, even if such actions are difficult and imperfect. Ethical consumer choices can be augmented, encouraged, and made more efficient, however, by complementary changes in the institutions that define the economy. Before examining institutional changes, it is worth considering in more depth, the options that consumers face.

Will One More Vegan Make a Difference?

Given the scale and complexity of modern market economies, consumers are often so separated from the consequences of their actions, that any positive changes in behavior can seem futile. Some will argue that this absolves any individual from the obligation to change their behavior. For example, Martin argues that¹:

¹ Michael Martin, "A Critique of Moral Vegetarianism," *Reason Papers* 3 (1976): 27.

[It] is dubious that becoming a vegetarian would have much effect on present practice. Unless vegetarians were a large movement it would have little appreciable effect on the economic market. Surely the idea suggested by Singer that if only one person becomes a vegetarian he or she can know that his or her actions will contribute to the reduction of the suffering of animals is absurd.

Martin's paralyzing pessimism is not warranted, but his reasoning is common.² The market response to consumer choices is clear: When people decide to shift their consumption away from animal products, the result will be fewer animals raised and fewer animals killed. This result comes from four effects: the direct effect, the supply chain effect, the network effect, and the impact of economies of scale. Many of these results are difficult to see immediately, and some are never visible to the consumer, but they are real nevertheless. This is one of the reasons that examining the economic impacts can be valuable.

When a consumer passes over the ground beef in favor of a veggie-burger in a grocery store, it is too late to save the animal whose body is for sale. Indeed, the industry is still, at that moment, raising and killing cows according to the sales that they expect in the near future. If this consumer, and others like her continue to abstain from meat purchases, however, the meat products produced will likely be put on sale and be sold to other consumers. So, the first result is actually a lower price of meat, which may not seem like progress. In the longer term, however, the supermarket will make a smaller order from the meat distributor, reflecting the lower sales, and that meat distributor will demand smaller deliveries from their processors as a result. Agricultural markets exhibit close to constant returns to scale in the long run, and profit margins are extremely small.³ The result is that any change in demand, in the long run, will be reflected entirely in decreases in quantity sold. This is the direct effect.

²Mark Bryant Budolfson, "The Inefficacy Objection to Consequentialism and the Problem with the Expected Consequences Response," *Philosophical Studies*, forthcoming; Ted A. Warfield, "Eating Dead Animals: Meat Eating, Meat Purchasing, and Proving Too Much," in *Philosophy Comes to Dinner: Arguments About the Ethics of Eating*, eds. Andrew Chignell, Terence Cuneo, and Matthew C. Halteman (New York: Routledge, 2015), 151–62.

³A more thorough description of the producer side of animal industries is available in the next chapter. For now this brief detail will suffice.

The difficulty in this result is that, because decisions about production are made in large quantities, there is a probabilistic element to this prediction. It is possible that one consumer has little effect on the market, and another consumer, making the same choice, reaches a tipping point and causes a store to stop carrying a product, or a producer to go out of business.⁴ It is thus more accurate to say that the expected impact on animals is roughly equal to, at minimum, the customer's decrease in consumption. In competitive industries, in the long run, the price is determined primarily by production costs, and the quantity produced is determined by demand. In simple economic modeling, this means that the supply curve is highly elastic in the long run. An individual changing their behavior will have exactly the long-run impact that they would expect—every chicken they choose not to buy will be one chicken somewhere down the supply chain in the future that does not die.

This direct effect also moves down the supply chain. If consumers are concerned about the welfare of chickens, they ought to be even more concerned about the welfare of hens that lay eggs to produce broilers. Broiler chickens are genetically selected to grow fast and be slaughtered at about 3 months old. At this young age, broilers are already unable to move naturally, and are subject to some pain because of their unnatural size. The hens used to breed broilers, however, must be kept alive longer (one to two years) in order to produce eggs. Their growth is slowed down by limiting their feed, keeping them constantly hungry.⁵ Every time a person abstains from eating meat, they also limit the demand for the animals used to produce the animals that become food.

This supply chain effect also applies to other ecological benefits. As vegetarians switch to plant-based food, less land is used to produce animal feed. The total amount of land used to produce feed for a pound of meat is far greater than the amount of land used to create a pound of vegetable food. As a result, the total number of animals killed in plant agriculture is far fewer for vegans than for those who eat meat that is grain-fed.

⁴ Shelly Kagan, "Do I Make a Difference?," *Philosophy & Public Affairs* 39, no. 2 (March 1, 2011): 105–41, doi:10.1111/j.1088-4963.2011.01203.x.

⁵ Harish, "The Forgotten Mothers of the Chickens We Eat," *Counting Animals: A Place for People Who Love Animals and Numbers*, April 30, 2014, <http://www.CountingAnimals.com/the-forgotten-mothers-of-chickens-we-eat/>.

Similarly, the number of animals displaced as agriculture replaces natural habitats is also reduced. Adding up the total number of animals saved is thus a difficult task. One calculation took into account the direct effect and just some of the supply chain effects, to argue that an average vegetarian saves between 371 and 582 animals per year.⁶

These effects on animals killed are not the only impacts of a change in consumer habits. Consumers also impact each other, through network effects. When consumers switch their consumption from meat to tofu, the grocery stores respond by offering larger displays of tofu in greater varieties. If consumption grows enough, the store will make tofu a regular part of their advertising. This all makes tofu an easier purchase for other consumers, since the alternatives will be easier to find and more visible. The products that were once found only in specialty stores in large cities can, as more people demand them, find their way into convenience stores across the country. We have seen this process occur with gluten-free bread products over the last 10 years, and with organic products starting a decade earlier.

In some markets, the cultural hegemony of animal consumption makes abstaining extremely difficult. Finding shoes made without leather, or non-dairy milk options, is difficult. Many restaurants may not offer any menu options that are free of animal products. In this environment, the social cost of trying to maintain a vegan lifestyle extremely high. As people abstain from animal products, however, it becomes socially easier for their peers to do the same. This illustrates an important point about consumer action. Because one consumer's choices impact the options available to other consumers, each choice to avoid animal products in favor of alternatives has a positive spillover effect. In this way consumers have a greater impact on the market than they realize.

Finally, when consumer preferences change, in some cases this can have an industry-wide effect on the prices of other goods. One of the reasons

⁶Harish, "How Many Animals Does a Vegetarian Save?," *Counting Animals: A Place for People Who Love Animals and Numbers*, February 6, 2012, <http://www.CountingAnimals.com/how-many-animals-does-a-vegetarian-save/>. These calculations used population averages for the USA to estimate "normal" animal consumption. He includes the animals killed for domestic consumption, the animals that die without being consumed in animal agriculture, the animals used to feed other animals. Most of these animals are fish and shellfish, since fish are fed large numbers of other fish in standard fish farming practices.

that animal products are offered to consumers at such low prices is that they are produced at great scale in an extremely competitive environment. This is not always the case for animal-friendly alternatives. When sales volume is low, fewer producers will dominate the market. The result is higher monopoly pricing, production at smaller scale, and higher per-unit transportation costs. As more consumers enter that market, however, it becomes profitable for other producers to compete in that specialized market, and this competition will drive down prices. Additionally, producers of ethical alternatives can expand their production and will be able to lower their costs as a result. In short, because of this scale effect, prices will fall as more consumers seek out animal-friendly products.

These lower prices for alternatives to animal products will draw more customers. When combined with the direct effects and network effects, the broad long-run impact of consumer action is considerable. Activists rightly focus on consumers as a powerful starting-point for grassroots action in the economy, and animal-industries are understandably wary of any consumer shift away from animal consumption.

Staying Local

The real power that consumers have to create change in the market does not mitigate the difficulty they face in engaging in ethical action in the first place. While the shift from a hamburger to a veggie-burger is straightforward, a consumer who is interested in consuming animal products that are produced with less cruelty, or in an environmentally sustainable manner, could find it difficult for all the reasons described in the previous chapter. Similarly, a consumer who wants to cut animal products from their household entirely will have to become an extremely knowledgeable researcher, since many products will not announce the leather components, the use of animal derivatives, or animal testing.

In the face of the ignorance forced upon participants in a long supply chain, and the resulting inability to hold producers accountable, some decide to opt out of mainstream product purchases entirely. Movements to “buy local” have often been connected to pro-animal consumer movements because of the asymmetric information problem that plagues these

markets. Most conventional retailers of meat products cannot make credible claims about the production methods of their animal products because of the complexity of the supply chain. As a result, customers will often assume that conventional animal products are produced using the lowest-cost, least humane methods.⁷

A local farmer selling directly to customers in a farmers market, however, can make more credible claims about production methods in a community where their claims can be verified. As a result, such farmers can successfully market animal products that are not produced using the cruel conventional methods. The short distance from producer to consumer makes market segmentation and specialization possible. Moreover, at a local level, commerce can take place in the context of relationships in which reputation and trust can be applicable. Where larger brands will usually build their reputation around price and observable product attributes, local producers can build a brand around characteristics that are locally observable, such as animal welfare.

As noted by Hopp and Gussow, the mix of goods available at farmers markets is a testament to the particular function local producers play in the marketplace.⁸ Most conventional mass-produced foods, even when produced locally, cannot be purchased at farmers markets. Instead customers find smaller producers that grow a variety of crops, meat producers that do not use industrial confinement methods, and local bakers and artisans. In short, farmers markets are economic havens for those producers whose products compete based on attributes other than price or easily visible characteristics.

There are many other reasons why consumers eschew national, conventional producers in favor of locally produced food. Farmers markets are still a small part of the market; in the USA there are 13 large supermarkets for every farmers market.⁹ Nevertheless, these markets are able

⁷ Steven McMullen, "Is Capitalism to Blame? Animal Lives in the Marketplace," *Journal of Animal Ethics*, Forthcoming.

⁸ Steven L. Hopp and Joan Dye Gussow, "Comment on 'Food-Miles and the Relative Climate Impacts of Food Choices in the United States,'" *Environmental Science & Technology* 43, no. 10 (May 15, 2009): 3982–83, doi:10.1021/es900749q.

⁹ Robert Paarlberg, *Food Politics: What Everyone Needs to Know*, 2nd ed. (New York: Oxford University Press, 2013), 149.

to charge noticeably higher prices for similar goods, indicating that at least some customers have strong preferences for local food production.¹⁰ Because only some of this premium is enjoyed by large supermarkets who sell locally produced fare, there is likely a mixture of preferences contributing to this phenomenon. While many perceive locally produced food to be less resource-intensive, and thus environmentally friendly, there is good evidence that this is often not the case.¹¹ It may be, however, that the farming methods used by those who sell at farmers market makes these goods more environmentally sustainable than conventional industrially produced foods.¹²

Purchasing locally produced goods does open up new opportunities for consumers to express ethical preferences, and for agricultural innovation. This comes at a very high cost, however. Consumers need to spend large amounts of time searching for goods and learning about them in order to make routine purchases. Any true commitment to buying local usually means purchasing a smaller variety of goods, since many locations cannot produce a wide variety of food and consumer goods. On the producer side, foregoing the efficiencies of mass-production and centralized distribution can have notable advantages, but usually the result is higher costs. Moves toward local production severely limit the degree to which producers can specialize, and thus productivity is lower. A better solution would be to find ways to avoid the problems with large consumer markets while retaining an efficient use of resources.

Unfortunately, local markets will likely not be the solution to the horrors of conventional animal agriculture. Despite a significant push within many communities to “buy local,” and despite the advocacy of

¹⁰Paarlberg, *Food Politics*.

¹¹Christopher L. Weber and H. Scott Matthews, “Food-Miles and the Relative Climate Impacts of Food Choices in the United States,” *Environmental Science & Technology* 42, no. 10 (May 1, 2008): 3508–13, doi:[10.1021/es702969f](https://doi.org/10.1021/es702969f); David A. Cleveland et al., “Effect of Localizing Fruit and Vegetable Consumption on Greenhouse Gas Emissions and Nutrition, Santa Barbara County,” *Environmental Science & Technology* 45, no. 10 (May 15, 2011): 4555–62, doi:[10.1021/es1040317](https://doi.org/10.1021/es1040317).

¹²Hopp and Gussow, “Comment on ‘Food-Miles and the Relative Climate Impacts of Food Choices in the United States.’”

writers like Wendell Berry¹³ and Michael Pollan,¹⁴ US animal production in small farms has continued to shrink in proportion to the industry as a whole since the 1970s.¹⁵ While it is possible that institutional arrangements have continued to become less hospitable to small farmers over that time period, the persistence of the trend lends evidence in favor of the greater efficiency of larger operations. While the possibility has been largely unexplored, it may be that the more humane animal farming methods used by some local producers could be scalable, and made more efficient, or even competitive with large conventional producers.

Giving Consumers Better Information

As a result of the systemic biases against ethical consumer action, it is not enough to change consumer preferences. Moreover, a full retreat into small local economies could result in widespread decreases in living standards. Consumers have great power in the modern economy, but they cannot exercise that power efficiently or precisely without significant institutional changes. Because consumers are particularly limited by the information that is and is not available to them, one obvious proposal that would enable consumers to act more ethically is to improve the labeling of consumer products.¹⁶ If consumers were able to easily tell which goods are vegan, which products were developed without animal testing, and which options were environmentally sustainable, they would be able to express their preferences about the production process when making purchases. Norwood and Lusk's experiments demonstrate that,

¹³Wendell Berry, "The Idea of a Local Economy," *Orion Magazine*, 2001, <https://orionmagazine.org/article/the-idea-of-a-local-economy/>.

¹⁴Michael Pollan, "Eat Your View," *New York Times* "On the Table," May 17, 2006, <http://michael-pollan.com/articles-archive/eat-your-view/>.

¹⁵Harish, "Do You Know Someone Who Buys Meat Only from a Small Local Farm?," *Counting Animals: A Place for People Who Love Animals and Numbers*, June 23, 2014, <http://www.CountingAnimals.com/do-you-know-someone-who-buys-meat-only-from-a-small-local-farm/>.

¹⁶Jeff Leslie and Cass Sunstein, "Animal Rights Without Controversy," *Law and Contemporary Problems* 70, no. 1 (January 1, 2007): 117–38.

when provided with good information, many customers change their behavior to favor better outcomes for animals.¹⁷

The benefits of clear product labeling are numerous. If consumers were able to express preferences for a more ethical production system—buying vegan foods, and those that include “humanely raised” animal products—the production side of the economy could differentiate and expand production of these goods. Retailers would be better able to segregate goods and advertise these ethically relevant attributes of their products. The labeling system would give producers at every step of the supply chain an incentive to pay attention to this ethically relevant information. The result is that retailers that want to investigate suppliers and hold them accountable would be able to do so easily.¹⁸ In the longer term, entrepreneurs would have an incentive to come up with more cost-effective ways to produce more ethical consumer goods, to meet this newly -expressed demand.¹⁹ In short, labeling has the potential to open up a number of different opportunities for improvement in the economy.

A large number of voluntary labeling systems have been developed, for all kinds of concerns. Regarding animal welfare, there are independent organizations that have created standards for animal breeding, care, and slaughter. An animal farmer can, if she wishes, be certified as “Animal Welfare Approved”²⁰ or “Certified Humane”²¹ for a wide variety of animals in the United States. Similarly, the Royal Society for the Prevention of Cruelty to Animals (RSPCA) has a “Freedom Food”²² label in the UK. These and other private and public organizations operate independent audits of production methods and maintain strict standards.

¹⁷ F. Bailey Norwood and Jayson L. Lusk, *Compassion, by the Pound: The Economics of Farm Animal Welfare* (New York: Oxford University Press, 2011).

¹⁸ Leslie and Sunstein, “Animal Rights Without Controversy.”

¹⁹ Steven McMullen, “An Ethical Consumer Capitalism,” in *Future of Meat Without Animals Track* (10th International Whitehead Conference, Pomona College, 2015).

²⁰ Animal Welfare Approved, “Animal Welfare Approved Standards,” accessed March 10, 2015, <http://animalwelfareapproved.org/standards/>.

²¹ Humane Farm Animal Care, “Certified Humane,” *Certified Humane*, accessed March 10, 2015, <http://certifiedhumane.org/>.

²² Royal Society for the Prevention of Cruelty to Animals, “Freedom Food,” *Freedom Food*, accessed March 10, 2015, <http://www.freedomfood.co.uk/>.

Many industry organizations have also created their own standards for animal care, including, in the USA, the United Egg Producers,²³ the National Pork Board,²⁴ the National Chicken Council, and the American Meat Institute,²⁵ among others. In some cases these groups adopt standards because they recognize that improvements will help the animals. Some voluntary standards are adopted in recognition that better treatment of animals will improve the quality of their final product. Finally, some voluntary “self-regulation” is adopted in order to improve the public image of the industry.

The difficulty in labeling is ensuring that product labels are clear and credible. The industry-produced standards rarely include any limits that will be costly to producers, are not universally followed, and none of their standards measure up to those put together by independent animal welfare organizations. To the consumer, however, the dizzying array of labels, certifications, and audits is difficult to navigate. Indeed, they may be impossible to evaluate without some extensive knowledge of animal biology, behavior, and standard industry practices. Too often, moreover, industry-created standards obscure more than they reveal by giving approval to practices that few consumers would consider ethical. The tougher standards produced by independent organizations have a mixed record. The “Freedom Food” label in the UK has had some success, but in the USA it is often difficult to find certified humane animal products outside of specialty retailers.

The promise of product labeling in animal industries is analogous to the movement toward mandatory disclosure as a preferred form of regulation across the economy.²⁶ This kind of regulation leaves consumers in a position to make informed decisions while not strictly limiting their opportunities or the direction of the market. The limits of this kind of

²³ United Egg Producers, “Animal Welfare,” accessed March 17, 2015, <http://www.unitedegg.org/AnimalWelfare/>.

²⁴ National Pork Board, “Factsheets—Animal Well-Being,” *Pork Checkoff*, accessed March 17, 2015, <https://www.pork.org/fact-sheets-brochures/factsheets/>.

²⁵ North American Meat Institute, “Guidelines/Auditing,” *Animalhandling.org*, accessed March 17, 2015, <http://www.animalhandling.org/ht/d/sp/i/26752/pid/26752>.

²⁶ Mary Graham, *Democracy by Disclosure: The Rise of Technopopulism* (Washington, DC: Brookings Institution Press, 2002).

regulation, however, are also notable.²⁷ When consumers are swamped with too much information that is not of central interest, they tend to ignore all of the information. There is a very real attention limit that product labeling efforts must consider. If too many things are labeled, none of the labels will have an effect.

Moreover, because consumers have little knowledge of the practices of animal industry and have only a limited grasp of what kind of practices would be good for the animals, evaluating the content of labels is difficult. In this environment, the authority of an industry organization or government body can be more important for consumers than their own knowledge. This makes it easy for industry groups to make vague scientific claims about their treatment of animals that are impossible for consumers to verify. The result is the inevitable watering-down of words like “humane” and “sustainable” until they have little meaning in product marketing.

For all these reasons, it makes the most sense to have mandated labeling, with oversight by a body that is fully independent of economic or political pressure from the industries that they are regulating. Given the substantial knowledge that we now have about animal welfare from the veterinary and ethological literature, it would be reasonable for the government to create production standards that evaluated animal treatment across the economy. A simple welfare score and sustainability score, reported along with ingredients, nutrition information or other labels, would make real progress in helping consumers make good decisions. Ideally, moreover, the scoring system would allow consumers to see if the products that they buy meet the standard proposed in Chap. 3: that the animals in this industry are plausibly better off than a comparable animal living in a natural habitat.

Discouraging Animal Consumption

Another strategy for changing consumer behavior is to use government policy to alter the price of animal products. A simple approach would be to impose a simple tax on animal products, and/or eliminate government

²⁷ Omri Ben-Shahar and Carl E. Schneider, *More Than You Wanted to Know: The Failure of Mandated Disclosure* (Princeton, NJ: Princeton University Press, 2014).

subsidies that go toward animal production. Taxes designed to discourage behavior that is undesirable are sometimes called “pigouvian” taxes or “sin” taxes, the first term referring to the economist Arthur Pigou, who first made the case for such policies. If the government imposed a tax on animal products, part of that tax would be reflected in higher prices, which would result in diminished consumption. The case for this kind of policy is easy to make, because the individual and social costs of animal consumption are high and not reflected well in the market prices that consumers see.

The most obvious cost in animal production is the cost to the animal. Because animal welfare and interests have little outlet in markets, however, their interest in living well and avoiding slaughter goes unaccounted. Animal interests are also difficult to measure in monetary terms. We can, however, with some accuracy, measure the preferences that people have for animal welfare. Human preferences can be used in an anthropocentric framework to justify some pro-animal policies on efficiency grounds. Giving animals better lives improves the well-being of all of the people that care about animals. Using the estimates from Norwood and Lusk’s experiments, we know that customers would be willing to pay, on average, \$57 to move one thousand laying hens from caged to cage-free systems.²⁸ Extrapolating, Norwood and Lusk estimate that consumers might be willing to pay hundreds, on average, for system-wide changes. Simon uses their experiments to justify an estimate of \$1717 per person in damages from the cruelty in the system. While there are good reasons, explained in Chap. 3, to be suspicious of policy based on human preferences about animals, these estimates can provide a kind of lower bound for the welfare cost of animal agriculture practices.

These welfare costs are not the only costs that are not reflected in the price of eggs and meat products. There is some evidence that the excessive consumption of animal products has a large negative impact on human health.²⁹ Given the significant expense, in affluent countries, associated

²⁸ Norwood and Lusk, *Compassion, by the Pound*.

²⁹ John Webster, *Animal Husbandry Regained: The Place of Farm Animals in Sustainable Agriculture* (London: Routledge, 2013); Thomas Campbell and T. Colin Campbell, *The China Study* (Dallas, Tex.: BenBella Books, 2006); Marion Nestle, *Food Politics: How the Food Industry Influences Nutrition and Health* (Los Angeles, California: University of California Press, 2013). There is a significant amount of disagreement about nutrition and the health impacts of meat and dairy consumption. Adjudicating the methodological and scientific disagreements is well beyond the scope of this book,

with diseases that are influenced by diet and lifestyle, the cost of excessive consumption of animal products is high. Simon considers the monetary expense associated with *E. coli* and salmonella cases, the cost of antibiotic resistance, and other expenses as a result of our animal-based food system. He then adds the fraction of expenses related to cancer, heart disease, and diabetes treatments that can be attributed to excessive animal consumption, and comes to a total health cost in the USA of \$314 billion per year.³⁰ Some of his estimates may actually be conservative, but even if the actual health expenses related to animal consumption are significantly lower, they would still be a substantial external and unaccounted cost.

Finally, there are significant environmental costs related to animal industries. There is now a substantial literature linking animal production to climate change, soil erosion, excessive fresh water use, fossil fuel use, pollution, and deforestation.³¹ While there are clearly some methods of animal production that are less resource intensive, the current industrial model requires significant inputs of renewable and non-renewable resources, and is far from ecologically sustainable. Simon tries to estimate the monetary cost of these environmental problems with our current industrial model. His estimate is that the environmental costs per year in the USA amount to at least \$37.2 billion.³² Placing dollar values on environmental goods is difficult and has known limitations,³³ making Simon's estimates conservative.

which focuses instead on animal ethics. There is some consensus among nutrition experts, however, that, on average, affluent western consumers eat more animal products than is healthy.

³⁰David Robinson Simon, *Meatonomics: How the Rigged Economics of Meat and Dairy Make You Consume Too Much—and How to Eat Better, Live Longer, and Spend Smarter* (Newburyport, MA: Conari Press, 2013). Some of these costs are private costs, born by the individual, not by others. If this were true for all health care costs, this would not be a pigouvian tax, but a paternalistic one. However, because most expenses are either paid by state insurance or private insurance companies, as is the case even in the USA, these health care expenses are often shared widely.

³¹Cees de Haan, Henning Steinfeld, and Harvey Blackburn, "Livestock & the Environment: Finding a Balance," Study by the Commission of the European Communities (Food and Agriculture Organization, USAID, and the World Bank, 1997), <http://www.fao.org/docrep/x5303e/x5303e00.htm#Contents>; Henning Steinfeld et al., "Livestock's Long Shadow" (Rome, Italy: Food and Agriculture Organization of the United Nations, 2006), <http://www.fao.org/docrep/010/a0701e/a0701e00.HTM>; Webster, *Animal Husbandry Regained*.

³²Simon, *Meatonomics*.

³³Steven McMullen and Daniel Molling, "Environmental Ethics, Economics, and Property Law," in *Law and Social Economics: Essays in Ethical Values for Theory, Practice, and Policy*, ed. Mark D. White (New York: Palgrave Macmillan, 2015).

Altogether, most of the costs of animal agriculture are probably not paid by consumers at the grocery store, but are instead borne by others. One of the most important reasons for using markets to allocate and distribute goods is that people are able to make decisions based on rapidly changing conditions that impact the cost of production and the demand for goods. When facing a potential purchase, consumers can weigh the cost of that good against the benefits that they would receive from a purchase, and make a judgment about whether the product is worth the expense. If these substantial costs are not reflected in the price, however, then people will judge animal products to be far less expensive than they truly are and over-consume. The true cost cannot be avoided, but it can be shifted, as it currently is, to the animals themselves, to the health care system, or to the surrounding ecosystem.

Economists usually favor correcting “negative externality” problems like this one by building these expenses into the price of the product, so that consumers can make more informed cost/benefit decisions. A tax on the consumption or production of the products that accounts for these costs is often the simplest way to build in that cost. If we can estimate the per-unit external cost, and then implement a tax of some or all of that amount, the behavior of producers and consumers will change to reflect those costs. The revenue, in turn, can offset other economically costly taxation, or be used to counter some of the environmental or health damage. Current policy in the USA, however, actually subsidizes animal industries instead of taxing them. Given that a large amount of agricultural subsidies toward animal feed crops or animal industries themselves, the price that consumers pay is actually less than the cost of production, even ignoring all of the external costs discussed here.

The design of the tax will impact the kind of behavior response that can be expected. A standard per-animal tax on producers would impact the industry broadly and proportionally. For example, farmers might pay the government \$1 per year per chicken owned, and \$10 per year per pig. Larger producers would pay a large proportion of this tax, and those raising only one or two animals would foot a small bill. It is possible, however, that such a tax would only exacerbate the current practice of breeding animals that produce unnaturally large quantities of meat. Moreover, a tax of this kind does nothing to reward those producers that

work to keep their farms environmentally sustainable or those who adopt more humane production methods.

A more targeted tax could focus on the particular effects that are worth discouraging. For example, farmers could be taxed based on the amount of pollution that their farm produces or the amount of fresh water used. These taxes would create an incentive to develop more environmentally friendly production practices. The problem with such targeted taxes is that animal industries have impacts that are so broad in scope and difficult to analyze, that, in practice, only a few of the negative effects of these industries could be targeted with a tax.

Simon proposes a flat 50 % tax on any good that includes any animal product.³⁴ Such a tax would strongly encourage consumers and producers to examine animal-friendly alternatives where possible. This tax too is not ideal. Products that contain almost no animal products would be hit with the same tax as meat. Simon argues that this is beneficial because it would encourage fewer products to include animal-derived ingredients. It is worth noting, however, that this tax structure would do little to incentivize some positive changes in animal production. Consider a farmer that produces eggs in a more natural environment will have higher costs than a conventional egg producer. These higher costs will be reflected in a higher price, and thus a larger tax, under Simon's proposal. The tax, because it is a percentage of the price, will exacerbate any price differentials that conventional producers enjoy over humane alternatives.

Even more fundamentally, a tax will not change the underlying incentives regarding the treatment of animals unless the tax is targeted to those treatments. If there was an unambiguous accessible measure of animal welfare, we could assign taxes based on those welfare scores. This would align the incentives of the farmers with the interests of the animals. Absent such a measure of welfare, however, taxes like the one proposed by Simon will reduce the quantity of animals owned by humans, but will not improve the quality of human-animal relations, or the welfare of the animals that are owned.

While taxes are good ways to build external costs into markets, it is not clear that the most important problems with animal industries can

³⁴ Simon, *Meatonomics*.

be addressed in this way. If we conceive of the fundamental problem of human exploitation of animals as an injustice, pricing said injustice is not a solution. For the pig that is living her entire life in a cramped, barren environment, the tax does no good. It might mean that fewer pigs live this kind of life, but absent some compensation to the pig for the pain she suffers, some injustice remains. Environmental and health externalities, on the other hand, are problems for which a tax might be an appropriate response since the harm is accumulative and gradual. The basic exploitation of animals is unjust not just because of the magnitude of the problem, however, but for each individual animal. In short, taxes should be targeted at health and environmental externalities, but for welfare problems, we need a different solution.

It is common for economists to consider all problems in the terms of costs and benefits, and thus to practice economics as if all problems can be conceived of in terms of efficiency. Boyle makes this mistake when he concludes that the “efficient use of animals is strictly positive,” and that a tax would be one appropriate method for bringing about the efficient outcome.³⁵ In this case, though, this practice of considering all harms in these terms leads us astray. The analysis is technically correct, but is asking the wrong question, as would an analysis of “the efficient quantity of murder.” For problems in which each instance is an injustice, regulation of the practice is a much more appropriate solution, even if it appears similar in a conventional economic analysis. Rather than tax a producer for using an inhumane production method, we could make said method illegal. Both would impose a cost on the producer and shrink the industry, but only the regulation would address the injustice in the treatment of the animals.

³⁵ Glenn Boyle, “The Dog That Doesn’t Bark: Animal Interests In Economics” (unpublished manuscript, NZ Institute for the Study of Competition and Regulation, November 3, 2008), <http://ir.canterbury.ac.nz/handle/10092/2399>.

Public Sentiment and Animal Visibility

While it is clear that better information would give consumers increased ability to express their preferences for ethical treatment of animals, what is the source of these preferences? If our institutions actively suppress people's inclinations to have sympathy for animals, then those institutions are part of the problem. It is common for animal activists and scholars to argue that information is important, not just for consumers acting as consumers, but also for individuals acting as citizens. Here, the lack of visibility of animal treatment in experimentation and agriculture is obviously part of the problem. For example, Singer and Mason attribute the apathy regarding farmed animals, relative to animals in zoos, to the relative visibility of these two populations.³⁶ Similarly, some animal advocacy groups focus on bringing the details of animal exploitation to the public eye. In the USA, Mercy for Animals³⁷ has been particularly effective, sending undercover investigators into industrial animal feeding and slaughter facilities, documenting standard practices and egregious abuses. As a result of their investigations, producers have lost major customers and been subject to legal prosecution. Overall, this strategy assumes that bringing these practices to the public eye will contribute to public support for pro-animal regulation and enforcement at a larger scale.

Anecdotally, the activists' documentation-based strategy seems effective, since many ethical vegan and vegetarians point back to this style of writing or reporting as the reason for their change in consumption choices. Animal producers seem to agree. The recent trend in the United States toward local "Ag-Gag" legislation makes it illegal to document standard agricultural practices. This anti-whistle-blower movement is highly controversial, but these laws have been enacted, against strong popular disapproval, in a small number of US states, and similar laws

³⁶Peter Singer and Jim Mason, *The Way We Eat: Why Our Food Choices Matter* (Emmaus, PA: Rodale Books, 2006).

³⁷"Mercy For Animals—Inspiring Compassion," *Mercy For Animals*, December 17, 2014, <http://www.mercyforanimals.org>.

are being considered across the USA and in Australia. The supporters of these laws tend to be the corporations that are subject to these undercover investigations, which provides further evidence that meat and dairy producers fear public visibility.

In contrast, however, O'Sullivan documents cases of rhetoric that point to the lack of visibility not as a cause of animal exploitation, but instead as a cause of popular support for animal rights. She cites a pork producer and research scientists, both of whom attribute the success of animal activism not to visibility but instead ignorance about what really goes on in their respective fields.³⁸ Furthermore, she points to the work of sociologists who conjecture that humans socialized outside of an agricultural setting, where most human-animal interactions are not economically productive, creates support for empathy-based, rather than production-based, relationships with animals as the norm.³⁹

The raw demographic data lend some support to this alternative perspective: Agricultural communities that are closest to animal use are not the sources of most animal activism. Similarly, many debates about animal experimentation happen between scientists and philosophers, rather than among scientists. Those closest to animal exploitation are also those who are most likely to support it. This could be used as evidence that these practices are less harmful than animal advocates argue. The evidence is complicated, however, by the fact that those closest to animal use are also those whose livelihoods are most dependent on animal exploitation. Scientists are socialized in settings where animal empathy is a low priority, as are workers in industrial animal agriculture. Moreover, people may have preferences about animal welfare that drive their choice of profession.

These conflicting pieces of evidence raise further questions about the institutions that shape the behavior of scientists and animal farmers. Are these people free to choose among more or less ethical practices of animal keeping? Can these industries be trusted to develop ethical guidelines for animal use? In later chapters I will argue that their precarious position in

³⁸ Siobhan O'Sullivan, *Animals, Equality and Democracy* (London: Palgrave Macmillan, 2011), 48–51.

³⁹ *Ibid.*, 49.

competitive industries makes them the subjects of strongly determinative technological and market forces. This creates the tragic situation in which we find ourselves. Those with the best information about animal keeping practices are those with the largest stake in preserving the status quo.

Conclusion

There are clear concrete steps that could be taken to empower consumers, as a population, to act in ways that would decrease exploitation and harm to other animals. Eliminating government subsidies and promotion is an easy and obvious first step. Imposing a tax on animal products would be an appropriate response to the health and environmental problems that result from animal industry. Of the tax proposals discussed, a species-specific per-animal tax on production would likely be the best option, especially if paired with targeted regulations on all animal use and ownership. These steps would go a long way toward limiting the worst abuses of the system.

One of the central tragedies of the modern economy, though, is how difficult it is to act on ethical preferences about some areas of economic life. As consumers, we are trained to care about and make decisions based on the attributes that are visible at sale. While efficient, this element of the system is deeply problematic. For the sake of human and non-human animals, we should prioritize developing a system in which people are encouraged to make ethical consumption choices. One step in this direction would be to require standardized labeling of all consumer products with information about environmental impact, animal use, experimentation, and treatment. In a world in which ingredient lists and nutrition information has become standard on many product labels, this is a small and easily achievable step. Most importantly, this change would allow consumers to hold firms accountable on a wide range of ethical issues.

While these steps are important, enabling consumer action is only part of a solution to the problems described here. Consumers have wide influence in the market for food, but far less power in pharmaceutical research, or the market for military technology. Animals harmed in these industries might see little improvement as a result of consumer activism.

Moreover, consumer preferences are the problem as often as they are the solution. Even in the market for pets, where human altruism is the most obvious, human preferences for certain traits have resulted in breeding practices that leave some animals with chronic genetic conditions. Most importantly, giving consumers the power to choose more humane animal products will not change the fact that such products still inflict great harm to animals in large numbers, and require violent slaughter as an early end to animal's lives. In order to improve the place of animals in the economy, there will have to be action on multiple fronts. Consumer empowerment, producer empowerment, careful regulation, and fundamental legal reform will all be necessary. The following chapters will examine these additional steps in detail.

6

Competition and Moral Complicity

Over the past 100 years, there has been a dramatic qualitative change in the way humans and animals interact. While animals have been used instrumentally for millennia, industrialization in agriculture, breeding, and slaughter has entailed a dramatic change in the lives of animals that are owned by humans. Farming practices that took advantage of natural animal habits and inclinations have been replaced by practices that control and suppress natural animal behaviors. It was once common for chickens raised to produce eggs and food to be corralled in a quasi-natural environment, where foraging was possible and normal flock relationships could be maintained. Today, it is most common for chickens to be confined indoors in small cages for most of their lives, or to be raised in a large flat with thousands of birds in a barren environment.¹ Fish are routinely farmed in confined and crowded spaces of water, with food and chemicals pumped into their environment. Even dogs, among the

¹F. Bailey Norwood and Jayson L. Lusk, *Compassion, by the Pound: The Economics of Farm Animal Welfare* (New York: Oxford University Press, 2011), Chap. 5.

most-loved animal species, are often bred in industrial conditions, with high mortality rates and limited freedom and mobility.²

It is sometimes tempting to imagine that this industrial move is the result of a few avaricious capitalists imposing an industrial model on farmers, pushing out family farms. Such a narrative would be dangerously simplistic. In fact, the structure of agricultural markets and the development of certain key technologies made the adoption of industrial models nearly inevitable. Moreover, the level of competition in agriculture leaves little freedom for farmers seeking alternative practices. This chapter will explore the rise of industrial animal agriculture, the structure of current markets, and the possibility for moral action on the part of producers.

Industrialization

The industrial move in animal agriculture followed industrialization in other industries and adopted a similar pattern of operation. Producers specialized in particular products and outsourced parts of the production process that were inefficient. The scale of operations grew dramatically through the help of new technologies. For farmers, this meant producing only one product, rather than keeping a variety of animals. It included outsourcing the slaughter, packaging, and distribution to other firms. Rather than feed animals with grass or forage from a farmer's land, specialized food was produced by other farmers and shipped in to feed the animals. Farmers that raise chickens are specialized into "hatching" facilities that produce chicks and "growing" facilities that raise the chickens to slaughter weight or to collect eggs. Most notably, though, farmers have developed methods for raising animals with minimal land and minimal labor input. These input savings were the main impetus for the confinement systems that are now common, especially for chickens and pigs.

²Kailey A. Burger, "Solving the Problem of Puppy Mills: Why the Animal Welfare Movement's Bark Is Stronger than Its Bite.," *Washington University Journal of Law & Policy* 43 (2013): 259; Adam J. Fumarola, "With Best Friends Like Us Who Needs Enemies—The Phenomenon of the Puppy Mill, the Failure of Legal Regimes to Manage It, and the Positive Prospects of Animal Rights," *Buffalo Environmental Law Journal* 6 (1998): 253.

Animal breeds that fared well in this new industrial system became favored by farmers, and genetic diversity was sacrificed for the predictability of fewer breeds. Moreover, selective breeding favored those animals that would gain weight, produce milk, or lay eggs most quickly, even if these traits sacrificed the overall well-being of the animal. These animals are often pushed even further by the consistent application of growth hormones, antibiotics, and unnaturally high-calorie food, so that chickens lay eggs continuously, dairy cows are always pregnant or producing milk, and animals raised for meat reach slaughter weight in record time.

The overall impact of industrialization has been dramatic. Animals grow faster and produce more milk and eggs. They are slaughtered at younger ages, but the average weight of hogs, cows, and chickens at slaughter is much higher. The production of animal products has increased even as the number of farms has decreased and the number of farmers has fallen. This increased productivity has coincided with a drop in the real price of animal products over the past 80 years. In short, the system has seen a dramatic increase in efficiency.

This move toward industrialization and efficiency has been the result of a confluence of changes over this period, all of which make this particular method of animal production efficient. The first big changes have been technological. The development of synthetic food made it possible to raise animals without access to natural environments. Chickens and pigs need not forage for food, since the synthetic diet is affordable—partially due to subsidies—and can guarantee adequate nutrition. Second, transportation, refrigeration, and sanitation advances all made it less costly to produce meat or milk and deliver it to customers hundreds or thousands of miles away. This allowed for much greater geographic concentration in production. In fact, producers found that it was most efficient to keep animals in vast numbers close to their processing facilities. The result is that confinement animal farming facilities are geographically concentrated in a few regions of the United States.³ In the market for fish, even wild-caught fish, it is normal for the fish to be transported around the world prior to their final sale and consumption.

³ Pew Environment Group, “Big Chicken: Pollution and Industrial Poultry Production in America” (Washington DC: Pew Charitable Trusts, 2013), <http://www.pewtrusts.org/-/media/legacy/uploadedfiles/peg/publications/report/PEGBigChickenJuly2011pdf.pdf>.

Federal regulations also encouraged these broad changes. In the name of guaranteeing sanitary production and consumer safety, the Food and Drug Administration (FDA) has created rules that make it difficult for small-scale producers to compete with larger producers. Large confinement operations can more easily meet sanitation requirements, even if such methods depend heavily on antibiotics. Food processing requirements require that farmers go through the standard large-scale slaughter and processing procedures, again favoring large producers and vertical integration. Subsidies for feed grains make confinement farming less costly than feeding animals on a pasture. In short, modern animal agriculture is pushed toward industrialization by a number of factors, all of which make large homogenous confinement production centers more cost-effective than smaller farms using more traditional husbandry techniques.

Competition, Profit, and Freedom

The move toward industrialization in the industry is not legally mandated, but that does not mean that most producers have the freedom to adopt different methods. Many farmers don't actually have the freedom to choose which methods they adopt, because they are under contract from a larger corporation to produce a very specific product using tightly defined methods. In these arrangements farmers become contracted "growers." These industry-wide moves toward vertical integration occur when large firms take control of a large portion of the supply chain. A company would seek out dedicated suppliers of feed, contract with some farmers to hatch eggs, contract with a different farmer to raise the animals, and then operate their own slaughter facility, transportation, and delivery. For a large food company selling products to supermarkets and restaurants across a nation, this provides them with control over the production process that can otherwise be elusive. The asymmetric information problem discussed in the previous chapter plagues producers just as it does consumers: With many different "growers" each providing thousands of animals, keeping track of quality is extremely difficult and

expensive.⁴ Those growers that sacrifice quality for lower costs can often do so with few consequences if acting independently without oversight. For larger meat distributors, the solution has been to specify the precise details of the production process, from bird genetics and feed to production time and slaughter locations. This has allowed these firms to supply extremely predictable homogenous animal products on a mass scale.⁵

A grower that desired to contract on different terms, perhaps wishing to provide their animals with better living conditions, would have little room to negotiate. The market power of the large firms relative to the growers allows the larger firms to dictate the terms. Especially in the market for chickens, most growers can negotiate only short-term contracts, and have only one firm that they can negotiate with. This places the purchasing firm in a position to set all the terms of the contract as they see fit. In standard economic terms, the monopsonist can extract most of the surplus from the exchange. The compensation of growers may even be subject to comparison to the performance of other growers with similar contracts, as some growers are paid according to a “tournament” system to encourage further efficiency. The overall result is that 71 % of poultry growers in the USA reported income that placed them below the poverty line.⁶ Attempts to regulate these industries to curb the market power of large firms in the USA have been largely unsuccessful.⁷ As a result of their limited power in the market, these growers are in no position to innovate with more humane production techniques unless they produce cost savings.

⁴ Steve W. Martinez, “Vertical Coordination in the Pork and Broiler Industries: Implications for Pork and Chicken Products,” Agricultural Economic Report (Washington, DC: USDA Economic Research Service, April 1999), <http://www.ers.usda.gov/publications/aer-agricultural-economic-report/aer777.aspx>.

⁵ Pew Environment Group, “The Business of Broilers: Hidden Costs of Putting a Chicken on Every Grill” (Washington DC: Pew Charitable Trusts, 2013), <http://www.pewtrusts.org/-/media/legacy/uploadedfiles/peg/publications/report/BusinessofBroilersReportThePewCharitableTrustspdf.pdf>; Martinez, “Vertical Coordination in the Pork and Broiler Industries: Implications for Pork and Chicken Products.”

⁶ Pew Environment Group, “The Business of Broilers: Hidden Costs of Putting a Chicken on Every Grill.”

⁷ Ibid.; Tomislav Vukina and Poramet Leegomonchai, “Political Economy of Regulation of Broiler Contracts,” *American Journal of Agricultural Economics* 88, no. 5 (2006): 1258–65.

If a few large corporations own large portions of the supply chain, and can extract most of the profit from those operating on contract, it seems possible that these companies could be in a position to make changes to their production methods, even if individual growers cannot.⁸ The profit margins at this level, however, are also quite low. The largest chicken and pork producers consistently report variable profit margins, usually well below 10 %, despite large amounts of industry consolidation. Moreover, there is good evidence that, even given the concentration of power in the hands of few corporations, agricultural markets remain highly competitive and efficient.⁹ Given the near-commodity status of most animal products, there is little room for large producers to sell their products at higher prices, without losing out to the competition. Certainly there is no freedom for smaller individual growers if they want to sell in conventional markets.

Over the past 30 years in the USA, there has been a rapid concentration of animal production. In pork production, for example, the percentage of pigs sold from farms producing more than 1000 animals went from 35 % in 1978 to over 95 % in 2002.¹⁰ This concentration was associated with large decreases in the wholesale price of pork. In fact, the price of pork fell in percentage terms faster than the price of any pork production inputs over this time period, indicating a corresponding rise in industry efficiency. This drop in prices was only partially passed on to consumers, however, since the retail price of meat fell much less dramatically than the farm price.¹¹ So even if the efficiency gains are not always passed on to consumers in the form of lower prices, technological change and market

⁸ Even if the industry was not dominated by large distribution firms, the competitive nature of the industry would probably lead to similar results. In this case, the large firms are complicit in the harm, but the harm does not seem to exist because the firms are large.

⁹ Michael E. Sykuta, "The Fallacy of 'Competition' in Agriculture," in *The Ethics and Economics of Agrifood Competition*, ed. Harvey S. James, The International Library of Environmental, Agricultural and Food Ethics 20 (New York: Springer, 2013), 55–73, http://0-link.springer.com.lib.hope.edu/chapter/10.1007/978-94-007-6274-9_4.

¹⁰ Harish, "Factory Farming and the Price of Meat," *Counting Animals: A Place for People Who Love Animals and Numbers*, July 23, 2013, <http://www.CountingAnimals.com/factory-farming-and-the-price-of-meat/>.

¹¹ Ibid.

competition have a strong impact on the conditions that animal farmers face.

This does not mean that producers, especially the large firms that control the production practices of growers, cannot make improvements to the living conditions of their animals. In response to pressure from large buyers and consumer movements, producers have started to move away from the use of gestation crates for pregnant sows.¹² Moves of this kind do result in marginal but real improvements in the lives of these animals. However, more dramatic changes to humane facilities often result in significantly higher costs¹³ making such changes difficult for even Tyson or Smithfield to make, absent a committed set of buyers.

The situation in animal agriculture is clearly one in which strict competition can limit the power of firms to act ethically. This runs counter to the usual expectation that competitive markets will have fewer problems than less competitive markets. The underlying logic behind this assumption, however, is instructive. Economists have focused on the role that competition plays in holding firms accountable to consumers. If buyers can choose between many similar suppliers, they can afford to be picky about the characteristics of the firm and the product. If buyers have few choices, and have to do business with a monopoly, the power resides with the seller, and accountability is diminished.

This market discipline provided by competition, however, only works for certain types of accountability.¹⁴ Firms can be pushed by this mechanism to provide consistent service or a high quality product. Suppliers can be forced to use resources efficiently and keep costs down. Most powerfully, firms can only charge prices that consumers are willing to pay, which depends heavily on their competition. In terms of ethical behavior, we see competition pushing firms to behave more ethically, particularly when that ethical behavior gives them a market advantage. For example, firms

¹²Eliza Barclay, "Smithfield Prods Its Pork Suppliers To Dump Pig Crates," *NPR.org*, January 7, 2014, <http://www.npr.org/blogs/thesalt/2014/01/07/260439063/smithfield-prods-its-pork-suppliers-to-dump-pig-crates>.

¹³Norwood and Lusk, *Compassion, by the Pound*.

¹⁴Steven McMullen, "An Ethical Consumer Capitalism," in *Future of Meat Without Animals Track* (10th International Whitehead Conference, Pomona College, 2015).

will pay their workers higher wages to decrease turnover and increase productivity, or decrease pollution in order to appeal to environmentally conscious consumers. Some have argued that this kind of moral accountability is one of the primary functions of markets.¹⁵

For other types of moral behavior this same market accountability actually encourages unethical conduct. Schleifer argues, for example, that the key determinant of the impact of competition is whether the action increases or decreases profits.¹⁶ Unethical behaviors that increase firms' profits will be more likely in markets where there is strict competition. Firms are more relentlessly profit maximizing when there is more at stake, and their profit margin is narrow. When the alternative is going out of business, unethical behavior becomes palatable. This pattern raises the real possibility of a race-to-the-bottom, in which farmers who adopt slightly more inhumane, but more efficient, methods can gain a competitive advantage over those producers who do not. Other firms are then faced with the stark choice of adopting similar production methods or leaving the industry.

The freedom of both consumers and producers to act in more ethical ways is thus complicated by market institutions. While producers are clearly able to choose not to raise animals for human use, the system places real limits on their ability to choose how to participate within the industry. It is understandable, then, that farmers will respond to animal activists with confusion or disdain. They rightly feel they are being held accountable for something largely outside their control. In this context, we need to examine the question of moral complicity again, with these producers in mind.

¹⁵ McCloskey, *The Bourgeois Virtues: Ethics for an Age of Commerce* (Chicago, IL: University Of Chicago Press, 2007); Rachel Kotkin, Joshua Hall, and Scott Beaulier, "The Virtue of Business: How Markets Encourage Moral Behavior," *Journal of Markets & Morality* 13, no. 1 (2010): 45–58; Radu Vranceanu, "The Moral Layer of Contemporary Economics: A Virtue-Ethics Perspective," ESSEC Working Paper (ESSEC Research Center, ESSEC Business School, 2007), <http://ideas.repec.org/p/ebg/essewp/dr-07006.html>.

¹⁶ Andrei Shleifer, "Does Competition Destroy Ethical Behavior?," *American Economic Review* 94, no. 2 (May 2004): 414–18, doi:[10.1257/0002828041301498](https://doi.org/10.1257/0002828041301498).

The Possibility of Humane Animal Products

If farmers that participate in large mainstream markets are really not free to choose more humane production methods, it is worth asking why smaller producers seem to have more freedom. In many communities there are small farms that raise 100 % grass-fed cows, raise chickens and pigs in pastures, and collect eggs in aviary systems that allow real mobility and freedom. If these methods are available to these small producers, and their goods available at farmers markets and specialty stores, why do we not see large producers emulating them? In addition to the information problems described in the previous chapter, there are two limiting factors: scale and demand.

First, many of the methods that produce animal products with genuinely higher levels of animal welfare do so at a significantly higher cost and resource use. Far more land and labor are required, and the labor force must have a higher skill level. The result is that the cost of production is usually consistently higher, and the goods sell for considerably higher prices.¹⁷ Moreover, given the dramatically higher required labor and land inputs, these methods are not easily scaled to the levels of production that we see in conventional methods. Production would be spread over larger areas, increasing transportation and slaughter expenses, and products would be more variable. All of these problems are surmountable, but not without passing noticeably higher prices on to consumers.

If there were enough consumers who were willing to pay these higher prices, firms might be able to profitably make this switch unilaterally. Unfortunately these producers face the information problems that prevent them from credibly demonstrating the quality of their production methods. More importantly, however, the segment of the consumer market that appears willing to pay significantly higher prices for animal products is not large enough to warrant a massive shift. In short, there are not enough people willing to pay dramatically higher prices for food to make humane animal production profitable on a large scale.

¹⁷The best concise summary of the different methods and their cost-effectiveness can be found in Norwood and Lusk, *Compassion, by the Pound*, Chap. 5.

Moral Complicity and Animal Production

It is tempting to lay the blame for animal suffering squarely at the feet of producers, since they are the individuals making the decisions about animals' lives and living conditions. The deaths of the animals, an unavoidable part of raising animals for human use, must weigh heavily upon these producers. However, the culpability for animal deaths and for their treatment while under human control is diffuse, with many choices by many participants all conspiring to cause the death of a single animal. As discussed in Chap. 4, there are three elements of these systemic harms that make culpability difficult to assign. The multiplicity of agents contributing to a single harm is what Barrera called the problem of over-determination. Each choice by a producer, contractor, supplier, distributor, retailer, and consumer is a necessary but not sufficient condition for the animal's fate.

Moreover, the culpability, if there is any, must be shared widely, given the limited freedom that producers have to behave otherwise. This is the problem of interdependence. The death of each animal not only has many causes, the choices of the agents are all interdependent. In many cases it is difficult for agents to choose differently without coordinating with the other decision-makers. Moreover, the market system is carefully designed and regulated to limit the kind of industry coordination that would allow producers to adopt more humane methods. If the main firms in an industry came together to change production methods simultaneously, the result would be coordinated price increases, raising legal concerns about collusion. Our regulations that ensure competition between producers are in direct conflict with the well-being of animals.

It is for these reasons it is difficult to discuss the culpability of producers, but it is still accurate to describe, as we have done in this chapter, their complicity in these harms. Of all the actors in the supply chain, farmers are uniquely able to see and understand the needs of animals, and to design production methods that are more humane. Moreover, farmers are uniquely situated to speak out about the constraints that our economic system places on their behavior, and call for changes. The fact that animal industries are the most vociferous opponents to regulation or

change points to a deeper problem with the economic culture that is a central part of this system.

Moral Alienation and Economic Culture

If animal agriculture has been subject to an ethical race-to-the-bottom, where growers must either adopt the most efficient methods or leave the industry, it is worth thinking about the long-term impact this has on producers. The market rewards those producers that organize their business and priorities according to profit-maximization. Technology companies that enjoy numerous patent protections and a wide profit margin can wax eloquently about reshaping the world through innovation. Agriculture markets do not lend the same freedom, and companies are restricted to caring about the world in a very limited sense—they provide food at a low cost. Over time, individuals and institutions are trained to focus only on the bottom line, and they become accustomed to the violence that the industry inflicts on animals.

In addition to this path-dependence of profit-orientation, producers are subject to a moral alienation that results from the market specialization. As argued in Chap. 4, this alienation results from two factors: (1) the separation of individual actors from the consequences of their actions, and (2) the inability to make morally significant choices. The result is that, for too many producers, their ethical inclinations cannot be expressed by making choices that push the industry toward better treatment of animals. Instead, shielded from the consequences of their actions and blocked from making any real choices about production methods, individuals within the system justify the status quo and focus on other priorities.

Moral alienation is not a problem only with animal treatment in agriculture, but is common in specialized industries throughout the economy. However, the process has particular consequences for these industries that, because of destructive competition, are in dire need of regulation. In the absence of an external push, industries will not be able to self-regulate, or set their own ethical standards. An industry agreement would only be

sustainable if it included punishment for those that deviated, since the profit motive is too often pointed toward less-humane production methods. Instead, the more promising route is regulation from outside the industry that could be genuinely beneficial to all parties. The market for animals is mired in a stable but unethical equilibrium, where animals are disregarded and no one has the economic power to improve their lives. The next chapter will examine the case for more extensive regulation of animal industries.

7

Regulating Animal Use

In the face of significant routine harm to animals in the economy, it is common for advocates to call for stricter government regulation of animal industries. Many activists and scholars have asked for stricter standards for using animals in experiments, if not complete abolition.¹ Others have called for stricter enforcement of animal cruelty laws, especially regarding pet breeding facilities. Most notably, perhaps, there has been a sustained movement calling for changes to industrial animal agriculture, either by expanding the living space that animals are given, limiting the use of antibiotics, eliminating practices such as de-beaking and forced molting, or making animals' living conditions more similar to a natural habitat. In many of these cases, people have sought to use the power of the state to place limits on human use of animals. In some cases activists have sought to eliminate the most harmful practices.

All of these efforts constitute some kind of actual or proposed government regulation. Such regulations are both common and controversial. Animal industry groups often argue that their internal standards of animal keeping are sufficiently humane, and cite the significant cost of

¹“Normalizing the Unthinkable: The Ethics of Using Animals in Research,” The Working Group of the Oxford Centre for Animal Ethics (Oxford: Oxford Centre for Animal Ethics, 2015).

further restrictions.² Moreover, the public is not unified in favor of stricter rules. If strict regulation dramatically increases the cost of animal products for consumers, some customers, and many farmers, will be worse off. There is a real economic trade-off faced between the cost of food on the one hand, and the regulation of food production on the other. Nevertheless, in the face of systemic animal exploitation there is a strong case for stricter regulation. Because of the information asymmetries in the market for animal products, and the limited market power of producers, the interests of animals will not be protected by individual producers. Only through the legal system will the different parties in this market be able to coordinate to produce a more ethical market and respond to the interests of the animals under human control. This chapter will examine the current state of government oversight of animal use, and make a case for more uniform and strict regulation of animal ownership and use.

The State of Animal Protection

While animal protection regulations ought to prevent the most harmful practices through which people profit at their expense, too often this is not the case. Those animal industries where the most money is at stake, and where most animals are harmed by humans, are the same industries that face the lightest regulation. A patchwork set of rules and inconsistent enforcement produces highly arbitrary standards when compared across industries and species. There is, however, a principle that orders these efforts. Human preferences and interests determine which animals are given protection and which are not.

The most common animal use regulations in the USA are the animal protection laws, which are usually passed at the state level. It is common for these laws to include an obligation for animal owners to provide adequate food, shelter, and care for animals under their control. In my home state of Michigan, a person can be put into prison for up to four

²North American Meat Institute, "Guidelines/Auditing," *Animalhandling.org*, accessed March 17, 2015, <http://www.animalhandling.org/ht/d/sp/i/26752/pid/26752>; United Egg Producers, "Animal Welfare," accessed March 17, 2015, <http://www.unitedegg.org/AnimalWelfare/>.

years, and/or fined up to \$5000 for knowingly killing, torturing, mutilating, maiming, or poisoning an animal without just cause.³ A law like this can afford non-human animals real protection under the law. Indeed, if the law stopped here, and were applied in a consistent fashion, all of the worst animal abuses would be stopped immediately.

Unfortunately, the laws come with a standard set of exceptions. In the case of Michigan, the animal protection laws do not apply to the following: fishing, hunting, trapping, horse racing, the operation of a zoo or aquarium, pest or rodent control, farming, animal husbandry, or scientific research.⁴ In short, animals can be routinely mistreated, sometimes in horrific ways, as long as the abuse happens as a part of a traditional action that we consider “normal.” Moreover, the laws get even more specific. Killing an animal for food, and eating it, might be legal, but only if you do so as part of a “generally accepted farming practice” and the animal killed falls under the category of “livestock.” While this is good news for the dogs and cats who are in a privileged class of animals, it means that animal protection laws offer no resistance to the standard practices of animal agriculture or experimentation, even if these practices would horrify in another context.

The activities that are provided exceptions do not have free reign. There is oversight and rules that apply to many of these uses of animals. Researchers must come up with at least a minimal justification before engaging in animal experimentation, and slaughterhouses are subject to minimal humane slaughter rules. These rules require, for example, that pigs and cattle are stunned prior to dismemberment. However, even the humane slaughter regulations are the subject of frequent violations and inadequate inspections and enforcement in the USA.⁵ The regulation of these industries never serves as a challenge to the status quo or standard practices. The regulations are designed only to prevent negligent abuse that is outside of the norm.

³“Animal Protection Laws of Michigan,” *Animal Legal Defense Fund*, 2014, <http://aldf.org/wp-content/themes/aldf/compendium-map/us/2014/MICHIGAN14.pdf>.

⁴Ibid.

⁵“Humane Methods of Slaughter Act: USDA Has Addressed Some Problems but Still Faces Enforcement Challenges,” Report to Congressional Requesters (Washington, DC: United States General Accounting Office, 2004), <http://www.gao.gov/new.items/d04247.pdf>.

O'Sullivan argues that this state of affairs is ethically arbitrary, but politically comprehensible. She makes a case that the political status of animals differs dramatically based on the role that they play in the economy.⁶ Those animals that are economically productive, by producing meat, milk, fur, or experimental subjects, are generally exempted from any protection from harm that is part of that economic purpose. Animals that are not productive, but are kept as companion animals, are given significantly more strict protections. The importance of economic function is further illustrated by the inconsistency that is built into most animal protection laws. O'Sullivan considers the rabbit, which can serve many different roles in the economy. Rabbits might be companion animals, and thus subject to one set of laws. Alternatively, the rabbit might be an experimental subject, and be thus protected under the standards of research ethics. A rabbit might instead be the property of a farmer, and be bred for fur or meat. Finally, the rabbit might be free-living, and considered either a pest or a treasure, based on the environment it enters. It is plausible to imagine identical human treatment of the animal being legal in some cases and illegal in other cases, based solely on the economic context of the action.⁷

The sole consistency behind animal protections, then, is that protection is a function of economic use. Animals are protected from arbitrary cruelty, whether it is a dog owner failing to provide food or an agricultural worker hitting a pig with chains for entertainment. Purposeful and regular cruelty, on the other hand, is legal and accepted, as when chickens are deprived of food to speed up molting, or when animals are deprived of food and water during transport. At an ideological level, this underscores the place of animals, under the law, as objects for human use. While animals are privileged compared to plants or non-living things, their status is still entirely subjected to their economic role.

Francione argues that animal protection is highly arbitrary and is not based on any objective standard of welfare. If it was, he argues, we would expect more consistency across species. Instead, protection is based on

⁶ Siobhan O'Sullivan, *Animals, Equality and Democracy* (London: Palgrave Macmillan, 2011), Chap. 2.

⁷ *Ibid.*, 33.

historical or “conventional” use, which is, in turn, based on institutions of animal exploitation.⁸ Since these institutions were built in order to efficiently impose human will on animals, their mere existence provides weak moral justification for exceptions to animal protection law. These culturally consistent but morally arbitrary exceptions have held up consistently in US courts, where numerous cases of animal cruelty have been decided in favor of the defendants on the grounds that owners have some benefit of the doubt in using their animals for productive purposes, and that the law protects customary practices.⁹

The extensive and broad exceptions built into animal protection laws also illustrate one of the greatest weaknesses of government regulation as a solution to economic exploitation. Those who have the greatest interest in these regulations tend to be those whose commercial interests are most threatened by the prospect of government rule-making. If there are millions of dollars of revenue at stake, a firm will be sure to use their wealth and influence to help write the laws in their favor. Citizens and interest groups that have less interest in the particular details of the regulation will exert less pressure on the lawmakers. The result is what economists call “regulatory capture,” when incumbents in an industry help craft regulation to give their enterprises an advantage in the market. Alternatively, an industry can gain effective control of the regulatory agency that interprets and enforces regulation, after laws are written. If this process is unchecked, commercial interests can avoid regulatory oversight, or sometimes even start seeking extensive regulation in their industry—regulation that will cement their market power and keep competition at bay.

On the other side, political calls for animal protection come from citizens who are outraged by some visible practice, whether it is the mistreatment of pets, or the egregiously inhumane slaughter of animals for food. One once-common practice that is now universally condemned is animal fighting. Whether chickens or dogs, having animals fight to the death for the entertainment of humans is now uncommon and illegal in many places. When the population sees practices that offend, there is the

⁸ Gary L. Francione, “Animals as Property,” *Animal Law* 2 (1996): i.

⁹ Gary L. Francione, *Introduction to Animal Rights: Your Child or the Dog?* (Philadelphia: Temple University Press, 2001), Chap. 3.

incentive for political leaders to act. This political process results in animal protection laws that are highly arbitrary. Similar species are treated very differently under the law, in part because of the arbitrary preferences of humans. These preferences, in turn, are consistent with the traditional uses that a culture has had for that animal. Dogs, cats, and horses are given extensive protections compared to rats, pigs, and fish.

This pattern of arbitrary protection based on economic function and human preferences between animals fits the overall critique of animals' low standing in the economy. Animals are given protection only when it is in the interests of humans to protect them. Animals are killed violently, on the other hand, when that is in the interests of humans. This need not be the case. It is possible to use the regulatory power of the state to craft consistent and powerful protections for animals that guard their interests. If regulations were crafted well, they could transform the industries and practices that have been so destructive for so long.

The Case for Regulation

While government regulation tends to be politically unpopular, there are a number of powerful reasons for calling for much more extensive regulation of animal use. I will argue here that the traditional reasons for seeking regulation are only the start. By drawing on the systemic causes of animal exploitation that were described in previous chapters, a strong case can be made for widespread regulation. Moreover, such regulation could substantially benefit animals, consumers, and possibly even the producers of animal products being regulated.

Animal Rights

The most common justification that animal advocates give for regulating human use of animals is the most simple, and the most important. Animals have value, in themselves, and humans have a moral duty to treat them better than we commonly do. This argument takes different forms. Peter Singer has famously argued that animals can suffer in morally

important ways, and that we have an obligation to try to minimize that suffering.¹⁰ This can easily motivate measures that limit human-inflicted pain on animals. Another approach is to argue that animals, as “subjects of a life”¹¹ or as subjects worthy of equal consideration,¹² have certain moral rights that humans have an obligation to respect. If those rights include life, freedom, and natural habitat, then many human uses of animals would violate these basic moral obligations.

Any of these common philosophical arguments could motivate regulatory changes that are quite substantial. Many animal advocates propose eliminating animal use, by humans, entirely. Even if this outcome is not achievable, the ethical logic of these arguments would dictate serious consideration of the lives of animals while under human control. It is hard to square these kinds of rights with any but the least harmful human interactions with other animals. Since most human-animal interactions include serious harm to the animals, there is significant room for improvement.

Market Failure

Unfortunately, despite winsome and sophisticated defenses of animal ethics in the popular and scholarly literature, most people do not hold a strong position in favor of animal rights. Nevertheless, the case for regulating these industries can still be made to those who do not immediately see this as a basic moral obligation. Economists often frame government action as a response to a particular failure of market institutions. For example, pollution restrictions are justified because air pollution is a common harm that results as a side-effect of market action. Because the harm from air pollution is mostly borne by those who have no input into energy-production decisions, power plants will pollute the air unchecked by the market if the government does not step in.

¹⁰Peter Singer, *Animal Liberation: The Definitive Classic of the Animal Movement* (New York: Harper Perennial, 2009).

¹¹Tom Regan, *Empty Cages: Facing the Challenge of Animal Rights* (Lanham, MD: Rowman & Littlefield, 2005).

¹²Francione, *Introduction to Animal Rights*.

We can think of animal harms in an analogous way: The “normal” transaction between two people in which one person sells a pound of chicken meat to another person will inevitably cause harm to a third party—the chicken—that has no power to alter the transaction. Even if we discount the welfare of the animal from our calculus, however, this transaction still has harmed a third party: any human who is pained by the idea of chickens being mistreated in the agricultural system. If individuals care about animal welfare, they might choose not to purchase chickens or choose not to sell them, but they don’t have the power to prevent others from killing and trading chickens. In short, there is an “external cost” borne by the person who cares about chicken welfare, a cost that is not accounted for in normal market functioning.

Economists have described the problem of animal welfare as a particular type of market failure—a public good.¹³ Public goods have two characteristics: you cannot keep someone from enjoying them, and they don’t get used up. Animal welfare fits both of these criteria since a person can gain well-being from knowing that animals are being treated well without actually being in the presence of the animal and any number of people can care about the same animal. Public goods are a particular problem for market economies. The benefits are diffuse, but the costs are localized. If one person chooses to purchase vegan shortening instead of butter, they bear the entire cost of the purchase, but many others, who are not helping make the purchase, can be “free-riders” enjoying the moral and environmental benefits of the purchase without the cost.

In some cases, if the cost of avoiding animal cruelty is high, an individual might decide it is not worth it to purchase the ethical goods, since the benefit they receive individually is less than the additional cost. This behavior could persist even if the purchase is clearly worthwhile when taking into account the benefits to the entire population. This kind of situation can trap an entire population in a bad equilibrium: everyone would be better off if everyone purchased the ethical goods, but no one is better off, individually, if they personally buy the ethical products. This could

¹³ F. Bailey Norwood and Jayson L. Lusk, *Compassion, by the Pound: The Economics of Farm Animal Welfare* (New York: Oxford University Press, 2011), 315.

result in many people supporting the idea of genuinely free-range chickens and grass-fed beef, but few people pay the extra money for these goods.

As an example, consider the current difference in price between a normal hamburger and one of the better veggie-burgers on the market. While conventional burgers may often sell as cheap as \$4.00 per pound in the USA, some of the better meat-substitutes can be twice this expensive. If a person valued each veggie-burger choice (rather than meat) in their community at as little as \$0.10 per pound, they would be much better off if everyone in the community purchased the veggie burger. They would not, however, have an economic motivation to make the switch themselves. If all the citizens of a community are in a similar situation, valuing the veggie-burger for systemic reasons that extend to other people's purchases, coordination can improve the lot of everyone.

There are many different institutional arrangements through which people provide public goods for communities. For public goods with very widespread impact, it is often most efficient to provide the goods through government action. For example, the government could require that all animals be given space to move and act naturally. Doing so would give all citizens the knowledge that all animals were being treated somewhat better, not just those animals impacted by their own purchases. If everyone has altruistic preferences toward animals, the shared cost would be justified because everyone would be better off as a result. In short, the government can act as the body that facilitates coordination across a large population, eliminating the possibility of free-riders.

The only question, then, is if humans would actually benefit enough from animal welfare-improving regulations to justify the cost. In practice some people care a lot about animals, and many others don't have any preference for animal welfare. The most reliable estimates we have of the amount that humans would be willing to pay for animal welfare improvements come from the auctions run by Norwood and Lusk.¹⁴ In experimental markets, they found that the average person was willing to pay \$0.55 more per dozen eggs if they came from a cage-free barn system, instead of the conventional cage system.¹⁵ This gives us an estimate

¹⁴Norwood and Lusk, *Compassion, by the Pound*.

¹⁵*Ibid.*, 284.

of the value a person places for that one set of eggs. Their total value of switching to a more humane system for all laying hens in the USA could be much higher. To estimate this value, Norwood and Lusk run a series of auctions, and calculate an average willingness-to-pay of \$341.¹⁶ They estimate a similar average bid for moving all sows and offspring from the confinement-crate system to a shelter-pasture system: \$345. These estimates are projected, since a system-wide change cannot be legitimately auctioned off, leaving a significant amount of uncertainty about the true values.

Norwood and Lusk do have reliable auction estimates for moving 1000 chickens to a better system, however. Arguing that this is a good lower-bound for the public good value, they estimate the population-wide benefits to humans, from a move to cage-free system with outdoor access nationwide at a minimum of \$12.6 billion.¹⁷ The costs of such a change would only be \$4.67 billion dollars, however, yielding a clearly net-beneficial move, even with a lower-bound estimate of the benefits. For pork, the switch to a shelter-pasture system, using similar methods was estimated to have benefits that were at least double the costs.¹⁸ This makes a clear case, even within an anthropocentric framework, that significant, system-wide regulations in favor of better farmed animal welfare would be worth doing.

The limitations to these kinds of results are clear: They depend heavily on people's willingness to pay for the well-being of other animals. If the whole population became poorer, they would be willing to pay less. If a successful advertising campaign made people care more about animals, or made people want to appear to care more about animals, these estimates could increase. Moreover, a similar welfare improvement for a more popular species, like cats, would likely garner a much higher estimate, and similar gains for fish would likely be worth far less. In short, these estimates could be highly dependent on circumstances that have little to do with the actual lives of the animals.

¹⁶ *Ibid.*, 298.

¹⁷ *Ibid.*, 323.

¹⁸ *Ibid.*, 325.

One final piece of evidence strengthens the case that these valuations are genuine public goods. In an earlier study, these same researchers polled the US population, and found that the public favors banning inhumane practices, even if they are easily able to find alternative, higher-welfare alternatives in their area.¹⁹ This indicates that people really do get some pleasure from knowing that animals are being well-treated, even if that treatment is not directly connected to their own purchases.

Competition and Virtue Ethics

The animal rights and public goods justifications for animal welfare regulation are often the most prominent. There are, however, other reasons why these kinds of regulations could significantly improve the system. Individuals have more at stake in these questions than just the monetary value they place on animal welfare. Even if we were able to perfectly measure the amount of money people were willing to pay for animal welfare, it would still be difficult to determine the worth of pro-animal regulations. For example, we might place some value on the freedom that consumers and producers have to make ethical decisions. A system that makes it difficult for people to make ethical choices is a problem independent of what choices people actually make. Even those who place little moral weight on the interests of non-human animals may recognize that humans are better off when they have the ability to make these ethical decisions.

For farmers facing decisions about how to raise animals, the competitive market and strong corporate control severely limit their freedom. Farmers are usually free to innovate in cost-neutral ways, and are encouraged to find new sources of efficiency. They are not free to choose to produce at a higher cost, using more ethical methods, since the competitive market makes this a recipe for failure for all but a few producers. The result is a significant amount of homogeneity in production practices,

¹⁹Jayson L. Lusk and F. Bailey Norwood, "A Survey to Determine Public Opinion about the Ethics and Governance of Farm Animal Welfare," *Journal of the American Veterinary Medical Association* 233, no. 7 (October 1, 2008): 1121–26, doi:[10.2460/javma.233.7.1121](https://doi.org/10.2460/javma.233.7.1121); Norwood and Lusk, *Compassion, by the Pound*, 342.

many of which are, overall, extremely harmful to animals. The system prioritizes cost efficiency at the expense of animal interests. Alternatively, it could be said that the market has placed a very low value on animal welfare.

This systemic prioritization of cost efficiency can be clearly detrimental to those engaging in animal use. Farmers who have years or generations of experience in animal husbandry have found that the practices of their guild have been largely undermined by this focus on efficiency. Here it is helpful to think in the categories that Alistair MacIntyre drew from Aristotle's virtue ethics.²⁰ The practices that have defined human animal relations in agriculture for years were developed in a community of practitioners pursuing a variety of ends. Farmers aim to keep animals healthy, both out of genuine care for the animal's well-being, and also because healthy animals will sell for more money. The motivations of farmers can be separated into those pursuing internal goods (care for animals) and external goods (profitability). External goods that define the practices of animal care are not final ends in themselves, but are only desired for other more fundamental ends. External goods, moreover, are not fundamental to the vocation of farming, and can be pursued other ways.

One of the central arguments that emerges from this tradition of virtue ethics is that communities of practice, like agriculture, can only sustain virtue formation when they pursue internal goods that are intrinsic to their vocation. Ideally, farmers are able to, as a community, develop practices that ensure the production of quality food, a healthy community, animals, and land that is well-cared for. Even at their best, farmers have engaged in violence toward animals, but this only mitigates the observation that farms have, at times, been able to pursue genuinely good ends. When this is true, the very practice of farming is virtue forming, since the daily rituals of the farmer are going to be defined by those practices that are worth pursuing for their own sake. The character of farmers is thus wrapped up in their practice of farming.

When, on the other hand, these good ends that are internal to farming get swamped by the pursuit of external ends, like profitability, the

²⁰ Alasdair MacIntyre, *After Virtue: A Study in Moral Theory*, 3rd ed. (Notre Dame, IN: University of Notre Dame Press, 2007).

community of practice breaks down. The daily rituals that farmers engage in are now not, in MacIntyrean terms, genuine practices, and thus they are not virtue-forming. While MacIntyre leaves these arguments largely abstract, the transition in agriculture over the last century is a dramatic case study in the development of farming practices that subject all intrinsically good ends to the external criteria of profitability and efficiency. The results are predictable. Agriculture is dramatically more efficient, and yet agricultural communities are in decline, living standards for farmers are in decline, the environment has been subject to degradation, and most clearly, animals have been subject to significant system-wide harm.

The cause of these changes is clear: A combination of increased competition and technological development made the industrial animal agriculture model a necessity for farmers. Farmers who pursued a broad range of good ends in their vocation have slowly been replaced or disciplined by the necessity of conformity to the industrial model. Only a small percentage of farmers can now operate apart from the industrial practices dictated by large meat distributors.

With this critique in view, it is tempting to use animal agriculture as a case study in the moral failings of capitalism.²¹ It would not be appropriate to make an unqualified critique of market mechanisms in this case, however. This moral decline in agriculture is directly related to the functioning of markets, but so too would be the ideal of virtue-forming agricultural communities. In fact, the sustenance of a community of practitioners that could genuinely pursue internal goods depends, itself, on the specialization and flexibility that market mechanisms allow. If the character of farmers is at stake in the development of agricultural practice, the enemy is best understood to be a particular instance of market economics that has lost any accountability to a larger conception of what is good.

Regulation of animal industries is an imperfect solution to this problem. One cannot form communities of practice that encourage virtue formation through law. We can, however, rein in the competitive pressure that has pushed farmers to embrace practices that are obviously harmful

²¹ Bob Torres, *Making A Killing: The Political Economy of Animal Rights* (Oakland, CA: AK Press, 2007); David Nibert, *Animal Rights/Human Rights* (Lanham, MD: Rowman & Littlefield, 2002).

to animals. Competition between farmers will persist, and should. However, with well-designed regulations in place, farmers will not be faced with the ethical dilemmas that pit the health and well-being of their animals against the survival of the agricultural enterprise. Once these vicious avenues of competition are eliminated by law, farmers would still be free to innovate in other directions that could give them a competitive advantage over other producers. The pressure to use resources efficiently, work diligently, and price competitively will remain.

In the absence of an industrial body that can encourage farmers to self-regulate, there is no institution that can coordinate these global industries and agree on ethical best-practices. Thus, even if farmers were to all individually agree that the most cost-effective methods were unethical, none of the farmers would be free to embrace those methods individually. Government regulators, however, can act as a central coordinating body that enforces the rule on all members, eliminating the economic incentive to act unethically for a short-term cost advantage. In short, governments can create rules that are in the best interests of all producers. This, in turn, can free up farmers to act ethically and innovate in a more virtuous direction.

Consumer Information

It is not just producers that have difficulty making ethical choices in our current market. Unfortunately, as I have already argued, the current system makes it exceedingly difficult to make consumption choices based on ethical criterion. Subsidies, misleading nutrition guidelines, and the chronic information problems that result from long supply chains all severely limit consumer action. In the face of these barriers, simply labeling products better would be a significant step forward. However, while a strong case can be made that better information would allow people to make better choices, it is also difficult to imagine a product labeling program that would be comprehensive enough to cover all ethically relevant information. Moreover, the more information that is revealed, the less useful it is to consumers, since absorbing and comparing across products would become extremely costly. As a result, any labeling or consumer-information program will inevitably focus on a small set of limited animal welfare criteria.

The pernicious nature of the information asymmetry will virtually guarantee unintended consequences in any limited disclosure program. Any part of the production system that is not clearly disclosed in the product labels will provide opportunities for new animal welfare problems. Any welfare improvement that the producer could not credibly reveal in the labeling will be invisible to the customer. Again, there would be little room for costly ethical innovations. This is the difficulty of regulation through disclosure: If all relevant information is disclosed, the result is too complicated, and nothing is effectively communicated. If only a fraction of the relevant information is disclosed, a new race-to-the-bottom can occur along those dimensions not disclosed to consumers.

In the face of these communication difficulties, it is not likely that customers will ever be able to do a good job holding producers accountable for their production practices. In some dramatic cases, the popular press will aid in information gathering, and grassroots movements can form. For most production practices, though, few have the information and expertise to evaluate production practices and make purchasing decisions accordingly. Very few consumers will ever adequately understand animal biology and farming practices well enough to make their own judgments about “humane” treatment.

Because of the complexity of our global food system, truly informed consumer action is probably no longer possible on a wide scale. The number of products that consumers regularly buy, and the complexity of the component and ingredient lists for each one makes it impossible for an individual to trace the products they buy to their “source.” Information limits prevent consumer accountability, and absent good information, consumers are unable to make choices based on real ethical criteria. Thus we are faced with a tragic dilemma: We can either have rich consumers or ethically informed consumers. In our current system, we cannot have well-informed consumers without limiting ourselves to simple limited markets. This is where government regulation can be a significant improvement over market-based accountability.

If regulatory bodies can avoid lobbying pressure and “capture” by the industries that they are designed to regulate, then experts can create very detailed and effective species-specific production rules. These rules can leave the consumer in a much better position to act with ethical freedom

for two reasons: (1) those that choose to can ignore the problem, effectively outsourcing the accountability function entirely to the government; and (2) individuals who prefer more information can have access to publicly available legal standards, and so have clearer information about production practices than would be available otherwise. Here the law can, itself, provide an informed set of ethical criteria, so that uninformed consumers can base their judgments on regulatory efforts. While it is certainly not ideal to outsource ethical decision-making to government regulators, this is, in fact, the norm in complex industries. Complexity requires specialization in regulation just as in production.

Meat producers in the USA will sometimes claim that USDA standards and inspections already serve this function, but this is true in only a trivial sense. The current federal requirements are so lax that most of the interests of animals are ignored entirely by USDA inspections. It is only in the areas of disease prevalence and slaughterhouse requirements that USDA inspections have any significant impact on animal welfare, and even here the bar is low. This need not be the case. These government organizations have, across many countries, proven their ability to rigorously and zealously inspect food production systems for food safety concerns, using scientific standards for production requirements in food service and agriculture. This same zeal, if wedded to the best information from experts about the flourishing of specific animal species, could be used to effectively police agricultural practices. We lack only the political will to bring this about.

Animal Rights vs. Animal Welfare

Piecemeal regulation of animal keeping is, for many animal advocates, an insufficient response to animal exploitation. Even if humans are required to keep chickens in larger cages and administer better care, it would still be common to subject the animals to significant harms: depriving them of freedom, killing them at a young age, and so on. For example, Gary Francione, one of the most prominent advocates of this view, argues that the proper focus should be on particular rights, instead of on animal welfare:

When I refer to animal rights, I am really referring to one right: the right not to be treated as the property of humans. The recognition of this one right would require that we (1) stop our institutionalized exploitation of nonhuman animals; (2) cease bringing domesticated nonhumans into existence; and (3) stop killing non-domesticated animals and destroying their habitat.²²

His concern with welfare-promoting regulations is threefold: that they increase public comfort with the commercial use of animals, that regulations actually increase the efficiency of animal agriculture, and that they fail to achieve any ultimate gains in achieving animal liberation.²³ It is worth considering each of these concerns.

First, Francione argues that changes in industry practice, either voluntary or through regulation, only serve to make individuals more comfortable producing and purchasing animal products.²⁴ The result could be that these industries garner more support, and are able to expand operations. This concern has some economic merit. For consumers that have a significant concern about animal welfare, avoiding animal products might be preferable to conventionally produced meat, leather, or dairy. For these customers, a “humanely raised” label might attract their support, even if the difference in production methods is minimal. Moreover, firms are able to sell their “humane” animal products at significantly higher prices, to attract these conscientious customers with inelastic demand for humane products.

A significant amount of public attention is given to the size of chicken cages and gestation crates. As a result restaurants or retailers looking for positive marketing can commit to selling animal products that avoid these methods. The cost difference between caged and cage-free eggs or between pork produced with and without gestation crates is small, and often well worth the switch for the public relations–minded firm.

²²F. Bailey Norwood and Jayson L. Lusk, *Compassion, by the Pound: The Economics of Farm Animal Welfare* (New York: Oxford University Press, 2011), 324.

Gary L. Francione and Robert Garner, *The Animal Rights Debate: Abolition or Regulation?* (New York: Columbia University Press, 2010), 1.

²³Francione and Garner, *The Animal Rights Debate*.

²⁴*Ibid.*, 26.

Moreover, as the press heralds these “victories” for the animals, it can be easy to miss the fact that the plight of farmed chickens and pigs is still miserable, and that we are daily subjecting millions of animals to short lives and violent death. In short, a focus on these marginal changes can leave the mistaken impression that the real ethical battle is over a few inches of cage space.

Francione’s second charge is that welfare improvements usually improve the efficiency of animal agriculture, making the industry more cost-effective and successful. This argument is an accurate indictment of animal industries, but might fail as a critique of animal welfare advocates. In fact, there are a range of welfare-improving animal agriculture models that have been evaluated, and only the most marginal improvements have seen widespread adoption.²⁵ This is not because regulation is unable to make real gains, but instead because the current record of regulation is so minimal. The fact that many welfare-improving innovations that have seen wide success are also efficiency-enhancing is the result of politics: These are also the reforms that meet the least resistance from producers. If the political will were found to base regulations not on production costs but on strict ethological standards, the possibility remains for significant gains.

Whether welfare-enhancing regulations are a path to animal liberation is a difficult question to evaluate. Francione claims that welfare regulations make little difference for animals, and focuses his attention on abolition of animal ownership. It remains to be seen whether the animal welfare movement will be able to push continually for successively more strict regulations. Francione’s point could be accepted this far: Regulations ought to be justified on their own merits, not as part of a larger amorphous political movement.

The Costs of Regulation

While regulating animal keeping is well justified, for all the reasons discussed, there are real costs involved in imposing regulation. Francione’s suspicion of animal regulation as a handmaiden to industry is a well-

²⁵Norwood and Lusk, *Compassion, by the Pound*.

founded concern. In too many cases, regulators represent the interests of the industries that they are tasked with regulating. In the current political environment, animals have few political allies, while food production companies have significant power. It is difficult, therefore, to imagine a significant long-term regulatory agenda that would not be at risk of being co-opted by the political power of well-placed firms. In order to avoid this outcome, I suggest a couple of measures. First, it is important to recognize the human costs of these regulations, and to justify the new laws explicitly in light of these costs. Second, it is essential that regulations leave little latitude to legal or corporate interpretation, with judgment calls being made by independent experts.

First, the human costs associated with animal regulations are real, though likely not very significant in the long run. The most obvious costs are borne by the farmers. Changes in animal keeping regulations will directly impact their costs, manner of doing business, and possibly their ability to stay in business. In industries like broiler chicken production, these costs are often passed from the large firms right to the individual “growers” who may take on considerable debt to finance equipment purchases. Because farmers will often locate their operations and design large facilities based on current practice, any dramatic change of practice could impose a very substantial burden on individuals. This cost is not unique to regulation, however. The process of creative destruction in a modern economy is continuous, and most current animal producers replaced other producers when they adopted the latest methods. The demise of the family farm has been the result of strict competition with the large producers who would now be challenged by significant regulatory changes.

While any transition from one model to another has a significant cost to individual businesses, the cost can be minimized. Costly regulations can be phased in over time, and producers can be given years to adjust their practices or find other investment avenues. A five-year lag between enacting and enforcing a law would not eliminate the cost, but it would be long enough for firms to find the most cost-effective way to meet the new requirements. It would also give farmers an opportunity to convert their land to other uses if they are no longer able to compete under the new requirements.

Regardless of the time frame, however, significant regulations will likely have cost implications for farmers and consumers. Norwood and Lusk document many different animal keeping models for cows, pigs, and chickens.²⁶ In each case, there are increased costs associated with the more humane models. If all farmers were required to adopt the more expensive methods at the same time, no one farmer would have to act unilaterally and sacrifice their competitive position. The increased cost of production would be partially passed on to consumers, who would face higher prices for animal products.

This resulting cost to consumers, in the form of higher prices, would induce some to decrease their consumption of animal products. Simon calculates an average elasticity for animal products in the United States of about 0.65, which indicates that a 10% increase in prices would cause a 6.5% decrease in consumption. Over the long run, this effect would likely be even larger, as people have more time to adjust to the increased prices by changing their habits. If so, then we could expect the increased costs associated with significant animal regulations to cause substantial decreases in the total size of animal industries. This, in turn, means that many farmers would go out of business.

These increased costs would also mean that food prices would be higher. For consumers who already pay a significant portion of their income on food, this higher expense could be substantial. It is easy, however, to overstate the harm caused by higher meat prices. Because consumers will change their behavior in response to the higher prices, the burden of these increased costs will be mitigated. For example, a family that currently spends \$30 a month on chicken could see the cost of a comparable level of chicken consumption increase to \$40 or \$50 a month if broiler chicken production was regulated to dramatically improve the lives of the chickens. If, however, that same family decreased their consumption of chicken roughly at the rate predicted by the elasticity quoted above, then their consumption of chicken could drop by 30% in response to the higher prices. The family might end up eating a larger quantity of plant-based foods.

Moreover, since so much of our agricultural system goes toward supporting animal production, a decline in animal populations would

²⁶ *Ibid.*, Chap. 5.

require less land to go toward growing food for those animals, freeing up more land for the production of other crops. This, in turn, would place downward pressure on the prices of other food products that can be produced with that land. Because animal agriculture uses large amounts of land for growing feed, this offsetting effect could be considerable. The end result would probably be that plant-based diets would actually be cheaper, while animal-based diets would become more expensive. These broad, price-induced shifts from animal to plant-based foods would, moreover, have notable secondary benefits for the population, including diminished environmental harm, decreased resource use, and improvements in human health.

It is also important to remember that the costs of these kinds of shifts in the food system would diminish over longer time periods. Since consumers are more likely to change their behavior slowly over the long run, in response to price changes, and because producers are more likely to change models over the long run, the cost-reducing behavior changes would become more significant over time. In this sense, given the extensive benefits of better animal regulation, these initial transition costs can be considered an investment with a long-term return, both for animals and humans.

The Distribution of Costs

Norwood and Lusk offer a radically different concern about regulating animal welfare, which stems from the costs that such regulation would impose on the population.²⁷ Their argument starts with the observation that the willingness-to-pay for animal welfare improvements varies widely across individuals, in two important ways. First, among individuals who have similar levels of information about agricultural practices, there are still wide differences in people's level of concern and willingness to pay for better alternatives. Some individuals in their experiments were willing to pay very large amounts of money, while many others offered no money at all for animal welfare. In Norwood and Lusk's experiments, the average willingness-to-pay was well above the per-person policy cost,

²⁷Ibid., Chap. 10.

but only 8% of the individuals were willing to pay more money than the per-person cost.

If everyone exhibited very similar preferences, then drawing implications from a cost-benefit analysis would be straightforward. In the presence of widely differing valuations, we have the prospect of 8% of individuals being made much better off by the regulations, while 92% are made a little bit worse off. This also means that a democratic voting mechanism would likely reject many regulatory changes that a cost-benefit analysis would justify. Norwood and Lusk show discomfort with having the strong preferences of a few overrule the weak preferences for the many. If an arrangement could be organized where those with strong pro-animal preferences compensated others for the cost of the policy, then the policy would be clearly pareto-improving. However, since it would be close to impossible to ensure this kind of compensation scheme, the authors withhold their support for acting on this cost-benefit analysis.

Norwood and Lusk also observed a second source of variation in valuations: information. Experimental participants were more likely to pay for animal welfare improvements having been informed about the standard practices of animal agriculture. For these authors, this raised a difficult question: Are we justified in imposing regulations that will make people materially worse off, under the assumption that they would, on average, support said regulations if they were fully informed? Under an anthropocentric cost-benefit analysis, the answer is ambiguous. If we are measuring the perceived benefits and costs, to humans, then a new regulation regime might very well have much higher costs than benefits among an uninformed population, and thus not be justified. This points out one of the grave weaknesses of justifying animal and environmental regulation based on the psychic costs or benefits to humans. We have the counterintuitive situation in which education about bad states of the world actually makes people worse off, and ignorance really is bliss. Humans may only exhibit concern for animal welfare, and thus get pleasure from regulations, if they are first informed about the harm caused by standard industry practices.

Norwood and Lusk express reservations about regulation because it will make uninformed consumers worse off. Even a limited reflection on this dilemma, however, reveals that the conflict is a trivial one. Even

within an anthropocentric framework, we could easily justify making decisions based on people's informed preferences rather than their uninformed preferences. The intuition behind this is that most people do not feel, upon hearing bad news, that the bearer of bad news has done them harm by sharing the information. On the contrary, it is customary to be thankful for the news, even as one is distressed by it. There is a deep, common preference for true beliefs that overrides the pleasure one might gain from being uninformed. Nevertheless, people remain uninformed about a wide array of matters because it is extremely costly to gather information, especially regarding those things that will not have a direct impact on impending decisions.

Given this insight—that humans prefer to be informed of bad events rather than be left in ignorance—we should be able to place greater weight, even in an anthropocentric cost-benefit analysis, on people's informed preferences. This, in turn, means that the public goods justification of regulation is probably more robust than Norwood and Lusk indicated. It also has a further implication: Public opinion polling, which already yields pro-animal results, ought to be discounted as well. Given the poor amount of information available to consumers, if we are going to justify government action, in cost-benefit terms, on poll results, it ought to be the results of polls taken after educating people about the issue in question.

These problems that arise because of the variety of opinions about animals become less important when we consider other justifications for animal protection regulation. Such laws would clearly leave the animals better off, would free up consumers and producers to behave ethically toward animals, and would eliminate numerous external costs that animal industries impose on society. Overall, the economic case for such regulations is quite strong, especially when we take into account the interests of animals.

Effective Regulation

Even if the case for regulation is strong overall, the skeptics of this approach do demonstrate that such regulation must be well-crafted. The ways in which regulation could be made counterproductive or ineffective are numerous. Whenever rules are being rewritten there is the possibility of rent seeking and unintended consequences. For example, the regulatory process can be used to solidify the power of individual firms over and against their competitors or smaller start-ups. If the regulations dramatically increase the standards farmers must meet to sell animals and animal products, this can increase the fixed start-up costs of a farm. The result can be increased returns to scale and more power for the established large producers. Alternatively, a firm could strategically lobby for heavy restrictions on a particular type of production favored by their competitors, or for geographic exceptions, giving themselves a competitive advantage.

A related concern is that the regulatory task could be quickly made inadequate if producers respond to the new rules by finding still-legal but equally inhumane alternative production methods. The race to the bottom would then repeat itself with a new set of practices. The natural response to this kind of process is to regularly update the regulations with successively more complicated sets of rules for farmers to follow. This, however, creates even more numerous opportunities for regulatory capture and rent-seeking through the kind of lobbying just described. The solution to many of these types of concerns is to work to create regulations that are strict regarding animal welfare, easy to comply with, and are based on welfare standards rather than particular technologies. Welfare-based regulations, rather than production method-based regulations, provide a clear biological standard that can be re-interpreted by regulatory bodies and the courts as technologies and practices change. We recognize this principle of good lawmaking regarding laws protecting humans. Laws outlawing murder need not specify every possible method of murder for the law to be enforced well.

A second kind of problem that can arise from regulation stems from the limitations of government jurisdiction. In California, voters approved proposition 2 in 2008, which required that all eggs in the state be cage-free. The immediate concern was that eggs from other states, without

such regulations, would flood the California market, pushing local egg producers out of business. The Humane Society, which promoted the proposition, recognized this problem and supported legislation that would make all eggs produced in other states, but sold in California, subject to the same restriction.²⁸ Any regulation imposed at a small geographic scale will suffer from this kind of problem in an era of trade and transport. Regulations will always suffer from fierce opposition if the law puts local producers at a competitive disadvantage.

It is possible, moreover, that such regulations can end up making animals worse off. Consider a situation in which there are two production regions, and one has more humane production methods than the other. If new regulations are imposed that would improve the humane-producing region even further, but would add to the cost of production, consumers might move to those cheaper eggs produced under the worst conditions. In an economy with multiple sectors of varying quality, regulation in one sector can drive production into another sector. Additional laws that make imported goods meet local production standards can solve this problem, but these rules can also be limited by trade agreements.

It is preferable, instead, to craft regulations that apply to as wide a geographic area as possible, and to work to craft comparable rules across markets. As a rule, the more general the regulation, the less likely it is to lead to perverse consequences. Geographic consistency will prevent a geographic race to the bottom, consistency across species will prevent substitution toward increasing the production of the least protected animals. Consistency across industry and production method will prevent shifting the animal exploitation to different parts of the economy. Consistency across time will make the environment more predictable for producers, and limit stockpiling.

In the absence of the ability to craft comparable rules across markets, there is a serious case for limiting trade to the area within a country or like-minded trade zone. Cobb writes about the tendency for globalization to allow commerce to move beyond the reach of democratic control, which can make the competitive pressure of the market more powerful than the social interests of a whole population.²⁹ If firms can always move

²⁸ *Ibid.*, 56; Francione and Garner, *The Animal Rights Debate*, 47–48.

²⁹ John B. Cobb, “Ethics, Economics, and Free Trade,” *Perspectives* 6, no. 2 (1991): 12–15.

production to the region that will allow them to produce whatever they want, however they want, and trade agreements require that such goods be available in all markets, then states can attract economic investment by having the fewest rules and overlooking the worst abuses of labor and the environment. In this kind of situation, powerful governments and democratic movements have little to no power over the rules of the economy.

In an age of global agriculture markets, however, strict trade limits would be politically difficult and economically costly. If a state desired to make substantial improvements to the lives of animals used in industry, however, these costs cannot be avoided. The wider the gap in animal protection standards between countries, the larger the incentive for producers to flock to the least-regulated areas. Moreover, it is clearly important for consumers to support regulatory changes by supporting producers that do not flee to less-regulated zones. It is unlikely however, that a consumer movement could contain such movement except in extraordinary cases.

The Symbolic Content of Regulation

While it is easy to lump all animal regulations together, especially regarding their economic function, some scholars draw sharp distinctions between different types of regulatory changes. For example, Francione is clearly dismissive of regulations that “make laboratory cages bigger,” which, he argues, only solidifies the place of animals as property to be used for human purposes.³⁰ He is, however, supportive of regulations, even if smaller in scope, that ban certain uses of animals entirely. He argues, for example, that banning a particular kind of experimental use of animals would constitute “recognition that animals have an interest in not being subjected to certain treatment irrespective of the beneficial consequences for human beings.”³¹ Establishing particular animal interests as non-negotiable is an important part of Francione’s argument.

³⁰ Francione, “Animals as Property.”

³¹ *Ibid.*

A similar argument can be made for regulatory solutions rather than fines or taxes. In pure economic terms, excessive animal consumption or experimentation could be regulated by a sufficiently high tax on animal use. As discussed in Chap. 5, this approach has significant practical and ethical limitations. A tax places an additional cost on animal use, but does not create incentives for animal owners to treat their animals better. Francione's argument takes this logic a step further: A tax or regulation that leaves in place the expectation that human ends can justify any animal mistreatment cannot challenge the larger institutions of animal exploitation. A regulatory ban has symbolic content that a tax does not have, if it is designed to provide unqualified protection for some of the basic interests of animals.

In practice, distinctions between regulations that reinforce the current model and those that protect basic interests can be hard to distinguish, except on the extremes. Unless you have a very narrow list of basic interests, most pro-animal regulations can be conceived as fundamental protections. Francione argues that the one primary interest that animals have is legal autonomy: not being owned and used as a means to a human end. One could argue, however, that animals' interest in food, mobility, longevity, and relationship are just as basic as autonomy. If this is the case, then even minimal improvements in animal welfare, like larger cages, seem to promote these basic interests.

The current practice of basing regulations on human institutions rather than animal interests, however, is clearly problematic. Regulations reflect the historical institutional uses of animals to bring about desired ends for humans. Hunting, agriculture, and research are all protected areas of human violence against animals. Regulations that started not with the economic use of the animal but instead with their biology or natural behavior would be a huge step in the right direction. Such an approach would place the legitimate interests of the animals as the subject and basis for building animal law.

Regulation in Context

While there are a number of possible actions that individuals, firms, and governments can take that will improve the lives of animals, regulation must be part of the mix of initiatives. If animals are going to be par-

ticipants in the economy, and not just beings inhabiting separate worlds, entirely apart from human lives, there must be rules that protect animals' basic interests against exploitation. Moreover, while individuals and firms can make choices that have a sizable impact, there is a sense in which the government is the appropriate actor for resolving systemic problems like animal exploitation. While a consumer might rightly have ethical preferences regarding the products they buy, and thus act appropriately as consumers, people also have preferences about the system as a whole. When individuals want to express preferences about the working of the entire economy, it is appropriate to express those preferences through democratic deliberation and government action. Even if individuals are not culpable for distant economic harms when they act as consumers, they are culpable for systemic harms when acting as citizens making choices about the system.³²

For all the reasons discussed thus far, the problem of animal exploitation is systemic, not merely individual. Moreover, the systemic problems are based not just in the particularities of agricultural technology or consumer marketing, they are also rightly traced to one of the root animating concepts of market-based economies: property law. Even the prospect of regulation comes into conflict with legal conceptions of property rights. Scholars have long observed that, in regulating the use of a piece of property, they are also directly impacting the rights of the owner. A regulation of animal ownership diminishes the legally admissible body of actions that an owner can take with their owned animals. This, in turn, diminishes the economic value of the property, and might constitute a "taking" of value from the owner by the government. Whether this "taking" is legally significant or justified is a separate matter, but it is clear that individual property ownership, as the body of law that dictates the assumed position of humans over owned animals, is in direct economic conflict with animal interests. Moreover, the most significant regulatory changes, for broadly consistent animal protections, must happen as a part of property law. Animal advocates have long identified property laws as a key piece of the economic exploitation of animals, and so this will be discussed in detail in coming chapters.

³²Mary Hirschfeld, "How a Thomistic Moral Framework Can Take Social Causality Seriously," in *Distant Markets, Distant Harms: Economic Complicity and Christian Ethics*, ed. Daniel Finn (New York: Oxford University Press, 2014), 146–72.

8

Animal Experimentation

While most of this book emphasizes the plight of animals in the food system, it is worth thinking at length about animals used in experiments as well. By most recent estimates, the number of animals killed each year in or for experiments is high and rising. One study from 2005 puts conservative worldwide estimates at 58.3 million animals used in research and 115.3 million if research-related uses are included.¹ Moreover, since that time, the number of animals used in the UK has rapidly expanded.² While these numbers are small relative to the number of animals killed for food, the use of animals in experiments is a fascinating case study regarding conceptions of progress and anthropocentrism.

Many people believe that using an animal for a scientific experiment, especially when we know that the experiment will cause the animal harm and eventual death, is morally problematic, but not necessarily

¹Katy Taylor et al., “Estimates for Worldwide Laboratory Animal Use in 2005,” *Alternatives to Laboratory Animals: ATLA* 36, no. 3 (July 2008): 327–42. The larger number includes those killed for tissue, those used to maintain genetic lines, and the “surplus” animals not needed in experiments.

²Michelle Hudson-Shore, “Statistics of Scientific Procedures on Living Animals 2011: Another Increase in Experimentation, but Is There a Shift in Emphasis?,” *Alternatives to Laboratory Animals: ATLA* 40, no. 4 (September 2012): 211–19.

unjustified. In fact, public support for animal research is mixed. A recent set of polls in the UK found that 68% of the public agreed that “I can accept the use of animals in scientific research as long as it is for medical research purposes and there is no alternative.” On the other hand, only 37% agreed that “it is acceptable to use animals for all types of research where there is no alternative.”³ In the USA, the population is split evenly between support of the use of animals in research (47%) and those who oppose it (50%).⁴

Historically, research using animals has been subject to considerable scrutiny, but also wide institutional acceptance. Animal protection laws have traditionally made exceptions for scientific research. In fact, the first animal protection law enacted in the USA, passed in 1967 in the state of New York, included this exception:

Nothing in this act contained shall be construed to prohibit or interfere with any properly conducted scientific experiments or investigations, which experiments shall be performed only under the authority of the faculty of some regularly incorporated medical college or university of the state of New York.⁵

Exceptions of this type have remained common. While there are notable restrictions on the use of animals for research purposes, it is still common for researchers to cause harm to animals in ways that would be illegal if done outside of a research setting. For example, if a young man decided, as a hobby, to inject female mice with hormones that caused them to produce eggs more rapidly, collected those eggs, and killed the mice, he would be subject to condemnation and possible legal action. Genetic researchers, however, engage in this practice so routinely that it is an unquestioned practice in many labs.

³Jeffrey Mervis, “How Much Does the Public Support Animal Research? Depends on the Question,” *Science Insider* (September 5, 2014), <http://news.sciencemag.org/biology/2014/09/how-much-does-public-support-animal-research-depends-question>.

⁴Cary Funk and Lee Rainie, “Chapter 7: Opinion About the Use of Animals in Research,” *Pew Research Center: Internet, Science & Tech*, accessed July 2, 2015, <http://www.pewinternet.org/2015/07/01/chapter-7-opinion-about-the-use-of-animals-in-research/>.

⁵David Favre, “Overview of U.S. Animal Welfare Act,” Michigan State University, *Animal Legal & Historical Center*, (2002), <https://www.animallaw.info/article/overview-us-animal-welfare-act>.

The Animal Welfare Act (1966), which is the primary source of legal nationwide protection for animals in research in the USA, does place limits on the use of animals in scientific research. These limits fall into a few broad categories:

- (1) Housing and feeding: Animals are given housing, food, and exercise to maintain physical health.
- (2) Psychological protection: The law recognizes that for primates, housing conditions must take into account not just physical health, but also psychological well-being.
- (3) Minimization of pain and distress: Animals must be given some veterinary care, anesthetics must be given when appropriate, and animals should not, normally, be subject to multiple operative experiments.

These protections are wide in scope but still severely limited. Two particular limitations are worth discussing. First, researchers attempt to use less complex species when possible. Moreover, the protections afforded in the Animal Welfare Act do not apply to birds, rats, or mice, which together account for 95 % of all animal research subjects.⁶ This has created a strong incentive to use these animals instead of rabbits, dogs, or the other species that are protected by the Animal Welfare Act. While there are still professional and institutional standards that address the use of rodents and birds, there is little nationwide accountability for the treatment of these animals.

The second significant limitation of the Animal Welfare Act is that it leaves important prioritization in the hands of individual labs, providing little legal guidance. While pain must be minimized, it need not be eliminated, and it is unclear whether a \$10, \$100, or \$1000 expense associated with pain reduction is justified under these criteria. The result is that economic trade-offs, when they inevitably occur, are not adjudicated by

⁶Allyson J. Bennett, "Animal Research: The Bigger Picture and Why We Need Psychologists to Speak Out," *Psychological Science Agenda*, April 2012, <http://www.apa.org/science/about/psa/2012/04/animal-research.aspx>; James Rachels, "Drawing Lines," in *Animal Rights: Current Debates and New Directions*, ed. Cass R. Sunstein and Nussbaum (New York: Oxford University Press, 2006), 162–74.

independent bodies, but internal committees (with at least one external representative) and appointed individuals whose primary incentives are aligned with the success of the organization, not the welfare of the animals. One study of these committees found that there was great variety between the decisions of different committees, and that committees not connected to an institution were less likely to quickly approve research projects.⁷

Even the nature of these protections is subject to the instrumental justification of animal experimentation. When developing the latest changes to the AWA it was proposed that dogs should get 30 minutes of exercise each day. This change was opposed by researchers, however, but not because they disputed that this was a legitimate and vital interest for dogs held in captivity. Their argument, instead, was that this level of care was beyond what was needed to get good consistent experimental results from the animals.⁸ In response regulators reduced the specificity of the wording, allowing instead that local veterinarians could determine appropriate care for the animals. This line of argument illustrates two important points. First, animal protection decisions, even in the relatively progressive Animal Welfare Act, are not based on animal ethology, but on the instrumental use of animals. Second, when researchers argue that animals have to be well-cared for in order to get good experimental results, it is clear that the standard of care that they refer to is different than the ordinary understanding of that term.

In addition to legal protections, animal research is also guided by professional and institutional codes, many of which embody the laudable goals of **replacement** (using non-animal models whenever possible), **reduction** (keeping the numbers of animals used to a minimum), and **refinement** (improving experimental design to get more information from fewer animal experiments). With these goals in mind, animal researchers have reduced the number of great apes used in research, and have started to develop simulations that would achieve similar testing results without harming live animals. While there have been some notable successes, especially by lowering the number of animals used per

⁷ Scott Plous and Harold Herzog, "Reliability of Protocol Reviews for Animal Research," *Science* 293, no. 5530 (July 27, 2001): 608–9, doi:[10.1126/science.1061621](https://doi.org/10.1126/science.1061621).

⁸ Gary L. Francione, *Introduction to Animal Rights: Your Child or the Dog?* (Philadelphia: Temple University Press, 2001), 74.

experiment, there are still significant areas of concern. Animal safety testing, which accounts for less than a fifth of all experiments, is often quite painful for the animals. Toxicology testing, in particular, is often performed without any pain relief, in order to avoid drug interactions.

Overall, protections and standards notwithstanding, the normal practice of animal research is still stark: every year millions of animals are bred and distributed in industrial settings, contained in laboratory environments, subjected to harmful and often painful experiments, sometimes with limited pain management, and killed when their usefulness has expired. The raw fact of such a broad and ethically problematic norm raises questions about the institutions, practices, and ethical justifications for the current state of biomedical science and consumer safety regulation.

Justifying Animal Research

While it is widely acknowledged that common research practices cause harm to animals, such practices are not widely condemned by the scientific community. The justification for the harm done to animals usually includes two claims. First, scientific progress, especially in the biological and psychological sciences, requires animal research subjects. Second, the scientific progress that results from animal experiments provides important benefits for humans and other animals.⁹ While both of these claims have been challenged¹⁰ and should be subject to continual scrutiny, it is beyond the scope of this book to try to evaluate either claim. The justification that results from these two claims, however, must always be consequentialist in nature. It is not usually argued that it is intrinsically right to experiment on animals, but that the good that results will outweigh the harm.

This argument has taken a number of forms. One form relies on human exceptionalism or anthropocentrism to argue that benefits to humans must be given priority over harms to animals. In its strong form,

⁹Bennett, "Animal Research."

¹⁰See, for example, David M. Haugen, ed., *Animal Experimentation* (Detroit: Greenhaven Press, 2006).

this argument could posit that any benefits to humans outweigh harms to other animals, or, in a weaker form, that harm to animals must be “discounted,” or given lower weight, relative to human benefits. By this logic, using non-human animals as experimental subjects is justified because harm to these animals does not outweigh the possible benefits to humans. These arguments have the benefit of broad popular appeal, since most people share moral intuitions that prioritize the well-being of humans over that of other animals.¹¹ As an explicitly anthropocentric consequentialist argument, there are strong similarities between the logic scientists use to defend animal research and the logic of economic modeling. In both cases, arguments about rights, dignity, or inherent worth are difficult to include in the framework.

In other cases, the prioritization of human benefits over harm to animal experimental subjects is justified using the language of evolutionary biology. Morrison¹² and Schiffer¹³ argue that humans, like other animals, have a biological incentive to preserve themselves and the species at the expense of other animals. Schiffer writes that “the theory of biological evolution would place few restrictions on the use of animals as long as the intent is somehow to better the human condition and improve our chances to survive and reproduce.” For these writers, their anthropocentric ethic is based on conceptions of “natural” behavior that they observe in other animals. It is not always clear in these accounts how the descriptive fact of competitive relations in natural environments counters explicitly moral arguments in favor of animal well-being and autonomy.

If we are going to justify animal research on the basis of benefits for humans, we must acknowledge the difficulty of that task. The harm to the animals used is easy to observe, even if there are difficulties in knowing how non-human experiences of pain differ from our own. On the other side, despite the common assumption that humans benefit greatly from

¹¹Baruch A. Brody, “Defending Animal Research: An International Perspective,” in *The Ethics of Animal Research: Exploring the Controversy*, ed. Jeremy R. Garrett (Cambridge, MA: MIT Press, 2012).

¹²Adrian R. Morrison, “Ethical Principles Guiding the Use of Animals in Research,” *American Biology Teacher* 65, no. 2 (2003): 105–8.

¹³Stephen P. Schiffer, “The Evolutionary Basis for Animal Research,” in *The Ethics of Animal Research: Exploring the Controversy*, ed. Jeremy R. Garrett (Cambridge, MA: MIT Press, 2012).

animal research, there are many who have argued that few benefits actually exist.¹⁴ This disagreement is surprisingly difficult to resolve.¹⁵ What is clear is that we can either posit that *any* human benefit will outweigh non-human harm, or else we have to do the hard work of weighing the benefits against the costs.

To do this, we must recognize some important characteristics of the kind of benefits we are considering. First, because the benefits of scientific knowledge are shared and permanent, they accumulate as a stream of services rendered by the new knowledge. The discovery of a cure for a disease benefits all future humans who might be treated. This does not make the benefits infinite, however. We must only count those benefits that occur from having this new knowledge earlier than would be possible through other means.¹⁶ A second complication in counting these benefits is that, to be accurate, we must subtract the harms to humans that result from animal experimentation when researchers are led down the wrong path, either by false positives or false negatives that result from differences between the animal models and humans. If cancer cells develop differently in rats than humans, and scientists have not yet discovered all of the differences, then cancer treatment experimentation may well be led astray by the ubiquitous use of rodents for these kinds of experiments.¹⁷ Finally, the benefits must be weighed not just against the harms to humans and animals, but also weighed against the good that could have been done with other uses of the same resources. Unfortunately, we have almost none of the information necessary to make comparisons of this type.

What is immediately clear is that, while we can point to isolated cases of clear demonstrable benefit, usually the outcome of research is highly uncertain. It is the nature of the trial-and-error process of research that

¹⁴Kathy Archibald, "Animal Testing: Science or Fiction?," *Ecologist* 35, no. 4 (May 2005): 14–16; Christopher Anderregg et al., "A Critical Look at Animal Experimentation" (Medical Research Modernization Committee, 2006), <http://www.mrmcmcd.org/critcv.html>; Neil Barnard and Stephen Kaufman, "Animal Research Is Wasteful and Misleading," *Scientific American*, February 1997, <http://www.scientificamerican.com/article/animal-research-is-wastef/>.

¹⁵Robert Bass, "Lives in the Balance: Utilitarianism and Animal Research," in *The Ethics of Animal Research: Exploring the Controversy*, ed. Jeremy R. Garrett (Cambridge, MA: MIT Press, 2012).

¹⁶Ibid.

¹⁷Ibid.

many experiments, even if well-conceived, will lead to few tangible benefits. Moreover, this kind of benefits counting requires us to evaluate not just the probability of material benefit to humans, but the probability of realizing that benefit through other means. The accumulative nature of scientific progress makes it almost impossible to know which discoveries will lead to other discoveries, moreover, and which will be successful curiosities that are ultimately of limited usefulness. In short, justifying animal research efforts on a case-by-case basis is probably impossible using this kind of cost-benefit analysis.

As an alternative, researchers may try to justify the practice as a whole, rather than using this kind of analysis to make case-by-case judgments. While we can observe inspiring rates of advancement in medicine and biological sciences over the last century, we cannot easily weigh these advances against the suffering of the millions of animals that were used in experiments. Doing so would require that we also know what kind of advances would have occurred if we had used those resources differently. Again, the calculation is foiled by a radical epistemological barrier.

In the face of this kind of uncertainty, the status quo proceeds with the default assumption that animal research is justified as a general practice and researchers focus on minimizing pain caused to legally protected animals in their experiments. Unless there is a clear cost difference, experiments that can proceed without using animals are not clearly privileged in grant awards, institutional support, or education. In short, the cost to animals is given little institutional consideration once the required standards are met.

How Did We Get Here?

Given the controversy surrounding vivisection and animal research, it is worth asking why the practice is ubiquitous. As with other cases of institutional animal exploitation, the answer lies not with the reasoned deliberations of individual scientists. Instead, we must look to the history of government action, cultural fears, institutional path dependence, and the structure of an increasingly complex economy.

Animal experimentation began as an unregulated, overtly unethical, and largely unpopular practice in the late 1800s.¹⁸ Over the course of following decades, however, the biomedical sciences enjoyed the prestige of increased trust in the physical sciences as a vehicle for progress. The need to establish medicine as a science required the adoption of experimental methods, and thus experimental subjects. At the time, animal and human subjects were both common.¹⁹ It was only in the early twentieth century that the need for widespread codes of conduct was accepted, which created a large increase in the use of animals. The most notable change occurred in response to the Nazi programs of human experimentation. The resulting Nuremberg Code required animal testing prior to human testing as a basic tenant of research ethics.

At the same time, the rapid expansion of consumer goods produced at a large scale created the need for consumer safety regulation. These regulations, which were enacted in the USA in the 1930s, required animal testing of new food, medicines, and medical devices. To this day, animal tests are a standard part of medical research, drug development, as well as the development of new food components and cosmetics. While biomedical animal research is the subject of the most passionate and articulate defenses, it is worth remembering that a large portion of the animal research that is conducted is for non-medical consumer goods.

As markets for consumer goods became more sophisticated, individuals became less able to discern the safety of a product based on their immediate knowledge. Food items that were once relatively transparent are now sold with additives and preservatives that add value to the products, but are impossible for the average consumer to evaluate. Moreover, production methods have become less transparent for a wide variety of goods, and suffer from the numerous information problems described in Chap. 4. The need for basic safety regulation has only increased with more specialization and technological advancement. In our current model, however, safety evaluation of consumer goods is inextricably tied up with harmful animal experimentation.

¹⁸Roberta Kalechofsky, *Autobiography of a Revolutionary: Essays on Animal and Human Rights* (Marblehead, MA: Micah Publications, 1991).

¹⁹Ibid., Chap. 10.

As a result of these institutional pressures toward animal experimentation, generations of biological scientists are trained to imagine biological research in terms of animal research. Methodological diversity is extremely costly to researchers and to institutions that need to invest in the appropriate equipment. As a result, it is difficult for a biologist to even conceive of bucking the established norms of the discipline by avoiding animal research. As with other forms of institutionally embedded exploitation, individual action to counter the dominant culture is difficult.

Finally, in addition to these institutional pressures, the culture of the biological scientific community is not well equipped to counter this exploitation of animals. Rollin describes how scientists are socialized to separate the practice of science from the practice of ethics.²⁰ Steeped in the positivist philosophy that is popular in the hard sciences, the ethical concerns of even the most articulate animal advocates have little traction in a biology laboratory. Moreover, people who fit well in this ideological environment are more likely to choose careers in experimental biological sciences. The result is an ideological divide between different parts of the academy. Even in popular polls about animal research those who report having more knowledge of science, and who studied in science disciplines, are far more likely to support animal research than similarly educated people from the humanities.²¹

The similarity between the value-neutral approach that is dominant in the discipline of economics and the value-neutral ideology of the hard sciences is striking.²² In both cases, the goal of producing objective results that are free from the biases of ideology has been successful in maintaining the prestige and coherence of the disciplines. Also, in both disciplines this approach has created predictable ethical blind spots when it comes to critically evaluating the place of animals in their work.

²⁰ Bernard E. Rollin, "Ethics and Animal Research," in *The Ethics of Animal Research: Exploring the Controversy*, ed. Jeremy R. Garrett (Cambridge, MA: MIT Press, 2012).

²¹ Funk and Rainie, "Chapter 7."

²² For example, compare Rollin, "Ethics and Animal Research." To the discussion in Chap. 3 of this volume.

Consumer Complicity

Compared to markets for animal-based food and clothing, individual consumers and producers have far less power to impact the practice of animal research. Even if a strong consumer movement demanded products that had not been tested on animals, firms would, in many cases, be constrained by government regulations requiring animal testing. Similarly, firms have little freedom to adopt research practices that are free of animal experimentation in the face of strict government and disciplinary standards. Even firms that see little use for animal testing may embrace the standard animal tests out of fear of legal liability should they adopt unconventional testing models.

In addition to these institutional barriers, the information problems facing a concerned consumer are significant. Because safety tests happen at the product development stage, not in manufacturing, they are even more difficult to trace than production techniques. A consumer that wanted to purchase products that were not tested on animals would find it impossible to participate in mainstream product markets, where the information about testing is extremely difficult to find for most products and product components.

Further, if a consumer did find out that animal testing was used to develop a product, it would be difficult for non-experts to discover what kinds of tests were done or to evaluate the relative cruelty of the practices. Only a few experts in veterinary research can obtain the best knowledge about these tests, and the information is not easily translated for consumers. Finally, only the workers in specific labs, at specific times, will know any details about the treatment of animals in the lab, or whether any kind of pain relief was administered during painful tests. The ubiquity of the practice, combined with the almost complete absence of relevant information makes informed ethical consumption near impossible in the realm of product testing. This means that firms face little to no accountability from consumers regarding safety research practices.

Outside of mainstream products markets, dedicated consumers can find networks of producers that have avoided animal testing. Complex goods with many components and long supply chains still elude the dedicated vegan, but cosmetics, clothes, and household chemicals are all

available. Pharmaceutical and some over-the-counter medications, however, have become an area of special concern. These products are relatively simple, in that they have a known list of components and are usually produced in one centralized location. Moreover, the pharmaceutical industry has been one of the centers of harmful animal experimentation, largely because of consumer safety concerns.

The pharmaceutical industry is particularly resistant to consumer activism, however, for three reasons. First, almost all drugs have been tested on animals, so the choice facing consumers is either to go medicine-free, or accept some experimentation. Second, there is limited competition. When new drugs are introduced, patent protection can give the company legal protection from competitors for 20 years in the USA. The result is that most drug companies don't have to worry about customers seeking out alternative medications for their most profitable drugs—there simply are not many alternatives. This limits customers' ability to advocate for different research practices, since they have less power over firms. Finally, customers rarely are in a position to make critical judgments about pharmaceutical drugs. When a medicine is prescribed by a doctor, the customer is at a severe informational disadvantage. They are often facing severe illness, and have little information about recovery with and without the prescribed medicine. Even if they did decide to commit to serious research prior to taking a drug, decisions about medication often have to be made quickly, and few doctors and pharmacists will indulge long pre-medication research projects.

Some animal advocates have argued, furthermore, that committed vegans need not avoid prescription drugs, or products that have been tested on animals. Regan, in particular considers a number of arguments surrounding the ethical use of prescription drugs. He concludes that a consumer can use a medicine tested on animals without violating the rights of animals because it is not the animal testing that is benefiting the medicine user.²³ Citing the ineffectiveness of animal drug testing, Regan argues that the real reliability of drugs is discovered when they are tested

²³Tom Regan, "Animal Rights Advocacy and Modern Medicine: The Charge of Hypocrisy," in *The Ethics of Animal Research: Exploring the Controversy*, ed. Jeremy R. Garrett (Cambridge, MA: MIT Press, 2012).

on humans, and through continued human use. The testing on animals is indeed an unethical act for which regulators are largely responsible, but consumers are not to blame when they use a drug that was, in another time and place, also administered to an animal.²⁴ This argument has some merit. There is a qualitative difference between eating a steak, which necessarily involves the death of an animal, and taking a medication that is historically tied to animal deaths. Nevertheless, the economics of the pharmaceutical industry slightly complicates this argument, considering this industry in particular can shed light on the place of consumers in the markets that support animal research.

From a pragmatic standpoint, consumer activists will often aim to use their consumer dollars to support animal-friendly products. Pharmaceutical products are clearly a mixed case. When a customer buys a new drug, on the margin, they are not causing any animals to be subject to experimentation. In fact, after a medication finishes testing, the difference, in terms of animal lives, between selling one dose and selling 100 million doses of a drug is minimal. The drug companies do not need to complete new experiments for additional customers. So, unlike the market for meat or leather, an increase in demand for a particular drug does not necessarily create higher demand for animal research.

On the other hand, it is clear that strong consumer demand for pharmaceutical medications drives the industry to explore more and more possible medications, even if their impact on patients is no better than currently available medicines. In this way, by adding their dollars to the pharmaceutical industry's profit margins, they are increasing the monetary incentive for this firm, and other firms, to do research on more animals. Since almost all of the animal research happens at the early stages of drug development, increasing investment into marginally promising drugs brings significant harm to animals, and brings minimal benefit to humans.

The menu of prescription drugs is not uniform, however. Once patent protection expires, producers of generic brand drugs are able to copy the

²⁴Tom Regan, "Animal Rights Advocacy and Modern Medicine: The Charge of Hypocrisy," in *The Ethics of Animal Research: Exploring the Controversy*, ed. Jeremy R. Garrett (Cambridge, MA: MIT Press, 2012), 287–89.

chemical formula for drugs and sell them at lower prices. Thus, for older medications, there is some real competition, and consumers have options. These options are not all equivalent, moreover, since the generic medications need not go through the same long animal-testing regimen that drugs face prior to government approval. Since purchasing these generic drugs does not increase the profitability of new drug development, moreover, these purchases do little to incentivize further experimentation.

It is difficult to generalize this point about generic drugs to a larger consumer movement, however. While vegans could actively support generic drugs and shorter patent lengths in order to decrease animal experimentation, they cannot help but participate, at some level, in a system that very explicitly sacrifices animals in order to achieve material progress. Nevertheless, consumer complicity in these markets is difficult to assess. Certainly, consumer purchases of drugs, cleaning supplies, and cosmetics fund the industries that experiment on animals, but it is not clear that consumers have any realistic options that would allow them to opt out of the majority of these purchases. In the absence of any consumer options, progress for animals, in this area, must come from another source.

Changes in Policy

In order to make progress for animals in the economy, the institutions that encourage, require, and depend on animal research must change. Years of dependence on animal research in the biological sciences and consumer goods production has created a dilemma for animal advocates and consumer activists. For all the reasons discussed in the last section, the prospects for consumer-led change are not good. Even though a large portion of the population believes animal experimentation should be reduced, there is little opportunity for consumer action. This state of affairs alone—a population of consumers who desire to act ethically but are unable to do so—ought to justify government action.

The justification for government regulation in this case is very similar to the case made in other parts of this book. Normally, we expect market competition to result in institutions that are responsive to consumer

preferences. When markets do not produce results that are responsive to the needs of the population, or create an efficient outcome, it is deemed a failure of markets as a mechanism for allocating resources. In this case, markets are unable to acknowledge or respond to consumer preferences regarding animal experimentation because of government supported monopoly power (patents) and government regulations.

There are other reasons, however, that make it clear that government action should take the lead. There is no ideological reason why firms use millions of mice for consumer safety testing; this is simply the path that has been set for firms that would like to participate in these markets. Just as we cannot assume that the current state of affairs reflects consumer desires, so too, we cannot know if current practices would be considered best practice by firms absent government requirements. These norms could just as easily be reversed by new policy. Changes that required better treatment of animals in labs and more restricted use of animal models would quickly be adopted by laboratories, and become a new status quo.

We also know that institutions and practices have been built up around the requirements that are in place. It is difficult to assess how large the cost would be of limiting animal testing, in part, because we are only beginning to develop testing procedures that could replace animals in the research and development process. If substantial government support was put behind the development and implementation of new models, it is possible that we could replace animals in many experimental processes with little cost to the biomedical research fields.

The first and most obvious change that governments can take is to eliminate the requirement that products be tested on animals. This ought to be done by searching first for cases in which there are reliable alternative testing methods, and making these legally permissible options. Then the government can actively encourage firms and laboratories to demonstrate new animal-friendly testing procedures that can be adopted as a part of the regulatory structure. Taking these steps would allow the worldwide scientific community to seek alternatives on a level playing field. One could even imagine firms actively seeking out animal-friendly alternatives for marketing purposes and because animal testing is limited in reliability and is expensive.

This kind of move is unlikely to be successful unless it is designed as part of a larger effort to improve or at least maintain the quality of safety testing. Unless the goal of public safety is placed at the forefront of the reform effort, it will be too easy to lose support for pro-animal policies. Moreover, in our current legal environment, firms and the government will both be risk averse regarding changes to safety testing. Collecting solid evidence that new methods that replace animal testing are superior to animal models will be an important step. There is reason to believe that safety testing could be significantly improved if the methodological field was opened up, given the poor record of some types of animal tests.²⁵

This process is already taking place in Europe, where toxicology tests are being phased out.²⁶ The EU has invested in testing methods that focus on reliability and decreased the experimental use of animals at the same time. Given the progress that they have made, it is now possible to imagine eliminating most animal safety testing over the next decade without any compromises in consumer safety. Toxicology testing is only a fraction of total experimental animal use, but it can be among the most harmful to animals, and is an important place to look for improvement.

A second easy change that could be made in the USA is to require that all vertebrates receive protection under the Animal Welfare Act. The exclusion of mice, rats, and birds means that those legal protections apply to only a small fraction of animals in research labs. While these animals are often subject to additional standards imposed by granting agencies or institutional codes, the oversight is telling. A change of this type was considered in 2000 and 2002, but was eventually ruled out by congressional action. For the currently excluded animals this protection could mean improvements in housing and pain relief. Most importantly, expanding the scope of the AWA would ensure reporting and accountability for the use of these animals.

When this change was debated in the past, the National Association for Biomedical Research (NABR), an advocacy organization that supports animal research, argued both that the change was unnecessary, and that expanding the Animal Welfare Act would cost laboratories \$80

²⁵ Alison Abbott, "Animal Testing: More than a Cosmetic Change," *Nature* 438, no. 7065 (November 10, 2005): 144–46, doi:[10.1038/438144a](https://doi.org/10.1038/438144a).

²⁶ *Ibid.*

million to \$280 million.²⁷ It is unlikely that both of these claims can be true, since implementing the very minimal standards of the AWA would only have a high cost if actual changes needed to be made to the way laboratories operated. Even if the cost was as high as they expect, this would amount to only 1 % of the annual research budget of the National Institutes of Health.²⁸

It is possible that the stricter rules and documentation requirements that could accompany AWA expansion would increase the cost of doing research enough to crowd out some experiments. While opponents of increased regulation may oppose limitations on principle,²⁹ most scientists are concerned that increased requirements could make the process more expensive, causing those participants who are on the margin to limit their activity. The loss then, is the value of the knowledge that would be gained through the marginal experiments. If we assume that funding goes most readily to the most promising and important experiments, however, losing these marginal experiments is probably not going to noticeably impede scientific progress.

Conclusions

A large portion of animal experiments are used in medical and basic biological research, for which the institutions and funding mechanisms are very different than those breeding and killing animals for food. Nevertheless, there are remarkable similarities between animals used for research and those killed for food. In both cases, the animal's body is valued for human purposes independent of the animal's individual well-being. In this sense, both are what O'Sullivan called "economically productive" animals.³⁰ In both cases, there is a direct conflict between animal and human interests.

²⁷ Favre, "Overview of U.S. Animal Welfare Act."

²⁸ National Institutes of Health, "NIH Budget," *National Institutes of Health*, accessed July 8, 2015, <http://www.nih.gov/about/budget.htm>. The website currently advertises a \$30.3 billion budget, and states that 80 % of their budget supports external research through grants, and 10 % supports internal research. Assuming then that 90 % of their annual budget supports research, the high end cost estimate of \$280 million amounts to 1.02 % of the annual NIH research budget.

²⁹ Rollin, "Ethics and Animal Research."

³⁰ Siobhan O'Sullivan, *Animals, Equality and Democracy* (London: Palgrave Macmillan, 2011), Chap. 2.

Both types of animals are hidden from the view of those outside of the practices involved. Finally, both of these practices have legal protection for animal treatment that would, in other circumstances, be widely condemned and illegal.

There are two elements of animal experimentation that make this a particularly difficult ethical problem. First, scientific progress is accorded such trust and prestige that any impediment to basic scientific research, on ethical grounds, is viewed with suspicion. Moreover, in biomedical research, there is a moral urgency that makes the trade-offs especially difficult to navigate. With deadly diseases killing people worldwide, and great uncertainty about possible benefits, it is extremely difficult to prioritize the possible goods at stake, and difficult to weigh costs and benefits.

The second difficulty with animal experimentation, relative to other animal uses, is that many animals used in experiments are plausibly better off than animals killed for food. While the most painful experiments are unique, many animals are subject to manipulation that is non-invasive, or are treated with extensive pain relief prior to and during the experiment. Such treatment would be a luxury in animal agriculture where castration, tail-docking, and de-beaking are still common practices, universally performed without any pain relief. While the harms inflicted on these animals are still real, the case made for improving their lot must be more nuanced.

As a part of a larger system, however, the fact that these animals are routinely subjected to severe harm by our most prestigious institutions, funded by the government, ought to cause some concern. Even without agreement on the difficult ethical trade-offs, we should be able to agree to make the elimination of animal research a system-wide priority. However, the system has been designed to support the practice with such ubiquity that it goes unquestioned in most quarters. Therefore, substantial change will require a commitment by government, by consumers, and institutional efforts within the scientific community.

9

Property Rights and Animal Rights

One economic institution that defines the place of animals in the economy is property law. Animal activists have long identified animals' status as property as one of the most important barriers to recognizing animals' interests, welfare, or rights. For example, Gary Francione is famous for arguing that the most important "right" that animals can claim is the right not to be the property of humans.¹ Joan Dunayer writes that "By defining nonhuman animals as property, the law sanctions their enslavement and murder."² Because property law gives a significant amount of discretionary power to humans over and against their owned animals, the practice of animal ownership has received considerable attention among animal advocates.

Economists, in contrast, often have very favorable conceptions of property law, especially when connected to care for the environment. In one of the earliest economic arguments regarding property, Aristotle observed that there are advantages to private rather than common ownership, stating

¹ Gary L. Francione and Robert Garner, *The Animal Rights Debate: Abolition or Regulation?* (New York: Columbia University Press, 2010).

² Joan Dunayer, *Animal Equality: Language and Liberation* (Derwood, MD: Ryce Publishing, 2001), 170.

“when everyone has a distinct interest, men will not complain of one another, and they will make more progress, because everyone will be attending to his own business.”³ In this vein of thought, economics scholars have often conceived of environmental problems in terms of misaligned interests, and property rights as a legal mechanism for aligning the interests of an individual with the common good.⁴

While these two perspectives on property are clearly in conflict, each has important lessons. Economists and legal scholars have documented well the advantages of designing legal institutions so that the incentives of citizens are aligned with wider social goals. Property law achieves this alignment in some very important cases. The animal rights theorists are also correct, however, that property law explicitly protects owners of animals in cases where they are exploiting animals and causing them great harm. I argue that close examination of these perspectives can inform significant changes to animal law while still maintaining some kind of human ownership of some other animals. The next three chapters will examine property law in detail, starting with an examination of the place of property rights in economic thought in this chapter. Chapter 10 will examine the arguments about animal ownership found in the animal rights literature, and Chap. 11 will argue for a particular set of legal changes to property law.

The Nature of Property Rights

The dominant property concept in the USA and the UK conceives of ownership as one of the primary ways in which humans relate to the non-human natural world. To say that a person “owns” an animal is to assert that they have a set of closely related rights related to the possession of the animal. These rights, in turn, correspond to a set of duties that

³Aristotle, *Politics*, trans. Benjamin Jowett (Adelaide, South Australia: University of Adelaide, 2002), bk. II.5, <http://ebooks.adelaide.edu.au/a/aristotle/a8po/>.

⁴Nathaniel O. Keohane and Sheila M. Olmstead, *Foundations of Contemporary Environmental Markets and the Environment* (Washington, DC: Island Press, 2007), <http://site.ebrary.com/lib/alltitles/docDetail.action?docID=10729951>.

other people have toward the owner.⁵ The set of rights that fall under the category of “property rights” are often referred to using the “bundle of rights” metaphor. Ownership, in this view, implies the right to keep, alter, separate, dispose of, profit from, or sell the animal and anything the animal produces.⁶ This set of rights is fundamentally political, because it defines the sphere of individual control over the world, but it is also foundational for economic relations. Property law defines what can be traded, what uses are legal, and by extension, influences the market value of the traded goods. The result is that different regimes of property law can result in very different economic behaviors.

Perhaps the most influential property theorist in the Western tradition is John Locke, whose views on human ownership of the natural world are ubiquitous in both common law and statutory law. Locke was influential because he defined ownership as a natural individual right, instead of as a delegation of power from a monarch or government.⁷ In this view, property rights do not just define the duties that others have to respect the property of an individual, they also bind governments. If a government changes property law, or confiscates an item, the government should justly compensate the owner. Other views of property have challenged this dominant conception. For example, Meyer argues that property law reflects a social consensus defined by democratic government, and as such should reflect the priorities of society rather than individual will.⁸ This and other “social consensus” views of property give governments more freedom to justly alter property laws.

⁵ Wesley Newcomb Hohfeld, “Fundamental Legal Conceptions as Applied in Judicial Reasoning,” *Yale Law Journal* 26, no. 8 (June 1, 1917): 710–70, doi:[10.2307/786270](https://doi.org/10.2307/786270); Wesley Newcomb Hohfeld, “Some Fundamental Legal Conceptions as Applied in Judicial Reasoning,” *Yale Law Journal* 23, no. 1 (November 1, 1913): 16–59, doi:[10.2307/785533](https://doi.org/10.2307/785533).

⁶ This list of “rights” is not exhaustive. Consider the following examinations related to this metaphor: Thomas W. Merrill and Henry E. Smith, “Making Coasean Property More Coasean,” *SSRN eLibrary*, February 9, 2011, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1758846; Robert Goldstein, “Green Wood in the Bundle of Sticks: Fitting Environmental Ethics and Ecology into Real Property Law,” *Boston College Environmental Affairs Law Review* 25, no. 2 (December 1, 1998): 347; Stephen R. Munzer, “A Bundle Theorist Holds on to His Collection of Sticks,” *Econ Journal Watch* 8, no. 3 (2011): 265–73.

⁷ John Locke, *Second Treatise of Government*, ed. C. B. Macpherson (Indianapolis, IN: Hackett Publishing, 1980).

⁸ John M. Meyer, “The Concept of Private Property and the Limits of the Environmental Imagination,” *Political Theory* 37, no. 1 (February 1, 2009): 99–127, doi:[10.1177/0090591708326644](https://doi.org/10.1177/0090591708326644).

In practice, property law has been the focal point for some of the most bitter disagreements about animals and the environment. In some cases, there are both large amounts of money and fundamental ideological commitments at stake, as when the government seeks to regulate mining practices. If property rights are properly thought of as natural rights located in the individual owner, then government regulations to protect the environment, or limit the use of animals, are taking something of value from the owner. Some scholars have argued that, in these cases, the government should compensate the owners for the lost market value of their property.⁹ If, on the other hand, property rights are institutions that we design to serve the common good, and are properly granted to individuals by government, then a regulation is not an example of the government “taking” anything from the owner. Instead, regulation is a refinement of the privileges that the owner enjoys as an agent of the common good.

The cultural understanding of property, especially in the classical liberal tradition that holds sway in the USA, is much closer to that of the Lockean individual natural right. Garner argues that this tradition prioritizes individual political and economic liberty, and constitutes a significant barrier to legally recognizing animal interests.¹⁰ Judges that are tasked with balancing the interests of animals against the interests of owners have a long rich set of precedents to draw upon that prioritize and privilege the autonomy of owners in determining the right use of their own property. It is only when a significant public interest is identified that the presumption is not granted to owners when adjudicating the use of animals that they own.

Property Rights and the Environment in Economic Thought

Economists view private property as one of the central elements of a successful large-scale economic system. When individuals have control over property, they are able to use that property to invest in productive

⁹Richard A. Epstein, “Holdouts, Externalities, and the Single Owner: One More Salute to Ronald Coase,” *Journal of Law and Economics* 36, no. 1 (April 1, 1993): 553–86; Meyer, “The Concept of Private Property and the Limits of the Environmental Imagination.”

¹⁰Robert Garner, “Political Ideology and the Legal Status of Animals,” *Animal Law* 8 (2002): 77–91.

enterprises and care for their material interests. Property law protects people from theft and arbitrary changes in political power, so that people can engage in long-term planning, invest for the future, and take informed risks. Most centrally, property rights align the incentives of individuals with the broad goals of society. If individuals expect to be able to sell their property at some point in the future, they have an incentive to care for and improve the things they own. All of the local information and creative power that individuals possess can be marshaled to the goal of getting the most value out of the property that they control. In this way, private property is consistent with the social goals of economic productivity and innovation.

Friedrich Hayek was the scholar who most persuasively articulated the way that private ownership, rather than collective ownership, makes good use of the information in the economy.¹¹ He argued that unregulated market prices send important information about resource scarcity and abundance, as well as demand, to all the interested parties in the economy. Given the information in prices, then, owners of property could use their local information about their immediate situation to make the best use of their property. Demand and relative scarcity encompass the information about needs across the society, incentivizing owners to use their property to meet the needs of other people across the economy. In this way, market prices and private ownership align the individual incentive to gain wealth with the social goal of allocating scarce resources to those with the greatest demand. In the case of a drought, for example, the shortage of water in one area could, with the right institutions, result in a higher local price, providing an incentive for those with an abundance of water in other regions to store and deliver that water to the area with the shortage. In this way an essential need is met efficiently by individuals using their property to respond to the information in price signals. Importantly, Hayek compares this allocation mechanism with the alternative of central planning and common ownership.¹² Centralized communal economies lack both the incentives and the information necessary to manage a complex economy, because prices and individual choices are

¹¹ F. A. Hayek, "The Use of Knowledge in Society," *American Economic Review* 35, no. 4 (September 1, 1945): 519–30.

¹² *Ibid.*

less flexible. The result is that communal economies or planned economies are usually only successful on a small scale, when good non-market information is available.

Economists have long recognized that there are times in which unregulated markets and private property do not result in the alignment of private incentives and social goals. “Market failures” result when there are conflicts between interests, so that the actions of one person impose significant costs or benefits on another. Market failures are especially important for the way economists understand environmental protection. The problem of over-fishing is a common-resource problem: individuals will catch more fish than is optimal because the cost of fishing is shared by other people also trying to catch the same fish. Similarly, air pollution is negative externality: Individuals will pollute more than is optimal because the cost is shared by everyone who depends on clean air. Animal welfare, as discussed in Chap. 7, is a public good: Farmers will invest little in animal well-being since the benefits are realized by people that have no economic stake in the animal. While other market failures exist, these examples—common resources, externalities, and public goods—provide the basic vocabulary for many issues in environmental economics.

Ronald Coase is famous for defining some of these market failures in a way that points to a possible solution.¹³ Assigning property rights in situations where they are not well-defined can align individual and societal goals, eliminating the conflict. In the most famous example, Hardin explains how commonly held resources can often be over-used.¹⁴ Fresh water, clean air, fish populations, and commonly held green space are all places where people might over-use a resource that is held in common by many, since no one person has an individual incentive to save the common resource for future use. Common resource problems are thus situations in which there are negative externalities: One person’s use of the common resource imposes a cost on other users. Hardin, following Coase, suggested that assigning individual ownership to a common resource would give individuals the incentive to preserve the resource,

¹³R. H. Coase, “The Problem of Social Cost,” *Journal of Law and Economics* 3 (October 1, 1960): 1–44.

¹⁴Garrett Hardin, “The Tragedy of the Commons,” *Science* 162, no. 3859 (December 13, 1968): 1243–48, doi:[10.1126/science.162.3859.1243](https://doi.org/10.1126/science.162.3859.1243).

and prevent over-use. For a traditional “commons” that meant dividing up grazing land. With their own land at stake, no owner would place too many animals on the field, wanting to preserve the grass for future use. Economists call this the “internalization” of an externality, since the full costs of use are borne internally rather than partially imposed on an external party.

Property rights are not a universal solution to externality problems. In some cases externalities can be serious, but assigning property rights will not internalize the externality because the number of parties impacted is too broad. Consider the case of air pollution. If the right to pollute the air was sold to an energy company, this would not successfully internalize the externality unless the company had the incentive to preserve the market value of the air. But since it is impossible to keep people from benefiting from clean air, the market cannot adequately trade and value this good. The energy company, in turn would have little incentive to limit their pollution.

In traditional economic thought, these cases of externalities that are not easily resolved in markets are places where government regulation or taxation is an obvious solution. In order to pursue the common welfare, energy companies would be regulated to limit pollution, or the pollution would be taxed, so that the clean air would be preserved for all. Some economists, however, push the property rights paradigm even further, arguing for government intervention of this type only in very rare circumstances. These free market environmentalists argue that we can infer something about the seriousness of a market failure by the presence, or lack, of property rights. This argument builds on the work of Harold Demsetz, who extended the standard theory of market failures and property law. He argued that this theory could explain why some areas of life are subject to strict ownership definitions while other things are held in common. Externalities, positive and negative, are abundant. In many cases, however, internalizing an externality by defining property rights would yield fewer benefits than it would cost. As a result, political capital is spent defining property rights in those areas where the externalities are most serious.¹⁵

¹⁵Harold Demsetz, “Toward a Theory of Property Rights,” *American Economic Review* 57, no. 2 (May 1, 1967): 347–59.

For scholars working in this tradition, if they operate with a dim view of the effectiveness of government action, it is possible to view the definition and enforcement of property rights as the most important of pro-environment government actions.¹⁶ There is notable evidence in favor of this view. It is worth considering in detail the kinds of success that have been realized, in animal and environmental protection, by applying these ideas. What will become clear is that for some types of environmental protection, property rights and markets will work well, but other types of animal and environmental goods will be systematically ignored by these types of solutions.¹⁷

Property Rights and Species Protection

Some most obvious successes of property rights-based innovations in environmental policy have been in the protection of endangered animal populations. Consider first the problem of endangered fish populations. There has been recent evidence that large scale fishing worldwide has, in many cases, pushed the total fish take well beyond what is sustainable. Myers and Worm estimate that large predatory fish populations are at about 10% of what they were prior to the advent of industrial fishing methods.¹⁸ Others have used long historical records to show that many current fish populations are an order of magnitude smaller than what the ecosystems could support prior to human over-fishing.¹⁹ In the face of

¹⁶Terry L. Anderson, “If Hayek and Coase Were Environmentalists: Linking Economics and Ecology” (Working Paper, Hoover Institution, February 2015), http://www.hoover.org/sites/default/files/15102_-_anderson_-_if_hayek_and_coase_were_environmentalists.pdf; Louis De Alessi, “Property Rights as the Basis for Free-Market Environmentalism,” in *Who Owns the Environment?*, ed. Peter J. Hill and Roger E. Meiners (Lanham, MD: Rowman & Littlefield, 1998).

¹⁷Steven McMullen and Daniel Molling, “Environmental Ethics, Economics, and Property Law,” in *Law and Social Economics: Essays in Ethical Values for Theory, Practice, and Policy*, ed. Mark D. White (New York: Palgrave Macmillan, 2015).

¹⁸Ransom A. Myers and Boris Worm, “Rapid Worldwide Depletion of Predatory Fish Communities,” *Nature* 423, no. 6937 (May 15, 2003): 280–83, doi:[10.1038/nature01610](https://doi.org/10.1038/nature01610).

¹⁹Jeremy B.C. Jackson et al., “Historical Overfishing and the Recent Collapse of Coastal Ecosystems,” *Science* 293, no. 5530 (July 27, 2001): 629–37, doi:[10.1126/science.1059199](https://doi.org/10.1126/science.1059199).

these declines, simple fishing quotas seem to be relatively ineffective.²⁰ One of the most promising recent innovations has been the distribution of fishing rights, for a share of a particular species in a particular water area, to individuals and firms. These rights are often tradable, giving firms an incentive to maintain a healthy fish population, so that the future value of their fishing rights remains high. Empirical investigations have shown that these arrangements are effective ways to increase the value of fisheries.²¹ It also appears, however, that these tradable fishing permits create the incentives to improve the ecosystem and increase the stable population of fish.²²

It thus appears that fisheries exhibit the standard problems associated with open access commonly held resources. The adverse incentives are two-fold. First, fishing companies have an incentive to take fish as fast as possible, in order to catch the fish before their competitors do. Second, there is no incentive for the fishing companies to preserve the ecosystem supporting the fish, since acting alone would be ineffective. Both of these problems are reversed when individuals are given a legal stake in the future of the fishery. We see companies reducing their catch, and investing in the population and ecosystem to maintain the future value of their investment.²³

Another example of species preservation lies in the recent history of the American bison. These animals numbered in the tens of millions in the early 1800s, and were nearly eradicated over a short period in the 1880s. The motivations for the massive slaughter were numerous. Many native peoples depended on the bison population for sustenance, and so the US army supported the killing of the animals as a tactic of war.

²⁰R. Quentin Grafton et al., "Incentive-Based Approaches to Sustainable Fisheries," *Canadian Journal of Fisheries and Aquatic Sciences* 63, no. 3 (March 1, 2006): 699–710, doi:[10.1139/f05-247](https://doi.org/10.1139/f05-247); Christopher Costello, Steven D. Gaines, and John Lynham, "Can Catch Shares Prevent Fisheries Collapse?," *Science* 321, no. 5896 (September 19, 2008): 1678–81, doi:[10.1126/science.1159478](https://doi.org/10.1126/science.1159478).

²¹Richard G. Newell, James N. Sanchirico, and Suzi Kerr, "Fishing Quota Markets," *Journal of Environmental Economics and Management* 49, no. 3 (May 2005): 437–62, doi:[10.1016/j.jeem.2004.06.005](https://doi.org/10.1016/j.jeem.2004.06.005).

²²Costello, Gaines, and Lynham, "Can Catch Shares Prevent Fisheries Collapse?"

²³Jonathan Adler, "Property Rights and Fishery Conservation," *The Atlantic*, May 24, 2012, <http://www.theatlantic.com/business/archive/2012/05/property-rights-and-fishery-conservation/257604/>.

This, combined with the interests of the new railroads and a booming demand for buffalo hides, led to an unprecedented rate of killing.²⁴ It was not, in the end, the efforts of the national parks or environmental activists that saved the American bison; it was, instead, some well-timed entrepreneurship. A group of ranchers started capturing and breeding bison just as the herds were collapsing. While the public efforts to save the bison floundered, private investment in these animals resulted in larger herds and a growing population.²⁵

The success of private property management for fish populations and for the American bison can be contrasted with similar successes attributed to the passage of the Endangered Species Act in the USA. While government regulation has also resulted in rebounded populations of some animals, such as the peregrine falcon,²⁶ the traditional regulatory approach has had some notable drawbacks. When regulators limit the use of habitat that is home to an endangered species, the result can be a marked decrease in the value of that land. In the absence of compensation for that loss, owners have an incentive to keep their land free of regulated habitats.²⁷ The contrast in owner incentives between those approaches that assign property rights and those that diminish property rights could not be more stark: when property rights are assigned, owners act to preserve the ecosystem, and when property rights are limited, owners have the perverse incentive to eliminate valued ecosystems.

Ownership of animals also provides individual animals, in some cases, with benefits that are not available to free-living animals. Epstein points to the sometimes short and painful existence of free-living animals in

²⁴M. Scott Taylor, "Buffalo Hunt: International Trade and the Virtual Extinction of the North American Bison," *American Economic Review* 101, no. 7 (2011): 3162–95, doi:[10.1257/aer.101.7.3162](https://doi.org/10.1257/aer.101.7.3162).

²⁵Brian Yablonski, "Bisonomics," *PERC Report* 25, no. 3 (2007), <http://www.perc.org/articles/bisonomics>.

²⁶US Fish and Wildlife Service, "The Role of the Endangered Species Act and U.S. Fish and Wildlife Service in the Recovery of the Peregrine Falcon," *U.S. Fish and Wildlife Service—The Mountain-Prairie Region*, accessed July 16, 2015, <http://www.fws.gov/mountain-prairie/pressrel/peregrine.htm>.

²⁷Jonathan Adler, "Money or Nothing: The Adverse Environmental Consequences of Uncompensated Land Use Control," *Boston College Law Review* 49, no. 2 (March 1, 2008): 301; Jonathan Adler, "Back to the Future of Conservation: Changing Perceptions of Property Rights & Environmental Protection," *NYU Journal of Law & Liberty* 1, no. 3 (2005): 987–1022.

a natural habitat, compared to the relatively placid existence of a well-treated companion animal.²⁸ Even death, he argues, is less violent in a slaughterhouse than in the natural world of predation. These comparisons point to a limited underlying complementarity of interests between animals and owners. While animals lose much when subjected to human ownership, they also gain in some ways. While these comparisons can be contested, they also point to a possible way forward. If the interests of individual animals can be aligned systematically with the interests of owners, there is the possibility of mutually beneficial human-animal economic relationships.

The Limitations of Economic Incentives

While there are clearly some important lessons regarding environmental management and property law in these arguments, there are also notable limitations to this approach. The first limitation in the above examples is obvious: In many cases, the incentive to preserve animal populations is subsumed under a larger interest in killing and eating these animals over the long run. Fisheries are preserved for the express purpose of killing more fish, and bison were owned and preserved for the express purpose of using their bodies for food and leather. Since property rights for those animals currently being exploited in our economy are strong, it is apparent that property rights can discourage some economic problems, but not systematic exploitation.

Moreover, upon further examination, it is clear that the alignment of incentives that results from property ownership is quite limited. Anderson and Hill argue that bison in North America were not ultimately doomed by politics or common ownership, but by the market superiority of cows.²⁹ They calculate that, despite the market demand for the bodies of bison, the cost of shipping to market was 18 times higher for bison than

²⁸Richard A. Epstein, "Animals as Objects, or Subjects, of Rights," in *Animal Rights: Current Debates and New Directions*, ed. Cass Sunstein and Nussbaum (New York: Oxford University Press, 2006), 143–61.

²⁹Terry L. Anderson and Peter J. Hill, *The Not So Wild, Wild West: Property Rights on the Frontier* (Stanford, CA: Stanford Economics and Finance, 2004).

for cows.³⁰ It is likely then that bison would have been replaced by cows even if the market for their skin was not well developed, and even if the political goal of displacing native people was not present. Similarly, with fisheries, the incentive to protect ecosystems is limited to those attributes that are essential for the specific species that are marketable.

The problem with aligning market incentives by assigning ownership is that the sort of care for the non-human world that the market encourages is limited to those things that have market value. In the absence of a market value, whole species and ecosystems will be quickly replaced by others that have greater value. The incentives of owners, thus, are not aligned with the long-term interests of the creatures that they own, they are aligned with the long-term interests of the customers they serve. Only when these interests happen to coincide are the outcomes positive for animals. In extreme cases, the interests of owners are at odds with those of animals, and so property rights can become the impetus for the destruction of animals.

A few examples are worth considering.³¹ First, in Anderson's defense of environmentally motivated property law, he argues that the market value of bees is highly arbitrary.³² In some markets, the pollination services of local bees are essential, and make agricultural land far more productive. In the case of seedless varieties of some fruits, however, pollination is a problem, and bees become a liability. According to McCauley, in one location bees were providing \$60,000 in services to coffee producers at one point in time, but after the land was converted to other uses, the same bees were, in market terms, without value.³³ In another case, Wilson argues that stocking fish in Lake Victoria has been commercially successful, but devastating for native species of fish.³⁴

If we adopt an anthropocentric theory of value, in which the value of animals and the environment is defined by their economic valuations,

³⁰ P.J. Hill, "The Non-Tragedy of the Bison Commons," *The PERCOLATOR*, January 2, 2012, <http://www.perc.org/blog/non-tragedy-bison-commons>.

³¹ See also McMullen and Molling, "Environmental Ethics, Economics, and Property Law," 28.

³² Anderson, "If Hayek and Coase Were Environmentalists: Linking Economics and Ecology."

³³ Douglas J. McCauley, "Selling out on Nature," *Nature* 443, no. 7107 (September 6, 2006): 27–28, doi:10.1038/443027a.

³⁴ Edward O. Wilson, *The Diversity of Life* (Belknap Press of Harvard University Press, 2010).

these examples of markets replacing one species with another are unremarkable, even laudable. If, however, we take seriously the contention of environmental and animal ethicists that these animals and ecosystems have value in their own right, then these same examples are tragic. Market valuations, even when property rights are clearly defined, will not take into account the non-anthropocentric intrinsic value of animals. Because market valuations are often the only applicable values in a court of law, moreover, cases of blatant animal cruelty have often received insignificant penalty because the animals hurt or killed had little value.³⁵

In some cases, the expectation that property rights will properly align incentives has been a tool used to limit animal protection. Representatives of animal agriculture industries have, along with defenders of animal research, long argued that animal welfare will be adequately protected by the self-interest of owners/researchers. Farmers, it is argued, will not do anything to sacrifice the productivity of their animals, and researchers, similarly, would not want to compromise their research results by mistreating animals. Furthermore, in legal disputes about animal cruelty, the courts have often given owners the benefit of the doubt, arguing that their investment in the animals provides sufficient incentive to treat the animals well.³⁶ Francione argues that this assumption explains why the de-horning of cattle is common in the USA and not in the UK. In the UK, the de-horning of cattle is much less commonly practiced, and so the courts have seen no reason to deem it “humane.” In the USA, however, the practice is more common, and so courts have deemed it necessary.

Only a brief review of the standard practices of animal agriculture demonstrates that commercial incentives will do little to protect the welfare of animals whose bodies are marketable. Instead, a culture that has a taste for a particular kind of meat will usually doom the associated animal to a short and painful life. Norwood and Lusk demonstrate that animal agriculture is not even designed to maximize animal productivity. Doing

³⁵Gary L. Francione, *Introduction to Animal Rights: Your Child or the Dog?*, (Philadelphia: Temple University Press, 2001); Thomas Kelch, “Toward a Non-Property Status for Animals,” *NYU Environmental Law Journal* 6 (1998): 531.

³⁶Francione, *Introduction to Animal Rights*, 66.

so, for example, would result in larger cages for hens.³⁷ Instead, farms are designed to maximize profit. Indeed, the economic forces described in Chap. 6 dictate market incentives that are often at odds with animal interests.

Market-Based, Pro-Animal Solutions?

The underlying approach of using property rights to aid animals seems unlikely to provide a widespread solution if animals are conceived, by the market, as objects to be consumed. This does not eliminate the possibility of market-based solutions to some animal problems, even beyond the species-saving examples offered above. One of the hallmarks of the work of Coase is that it highlights the place of the entrepreneur as one who can alleviate transaction costs and capture the gains from resolving an externality. This framework gives us a way to think about the contributions that for-profit enterprises can make in resolving some of the ethical conflicts described in this book.

For example, there is a clear external cost imposed on people, animals, and the environment when firms engage in the current standard agricultural practices. While animals and ecosystems have no money to provide market-demand, people do. Moreover, Norwood and Lusk's experiments demonstrate that there are likely many individuals willing to pay for better farm animal welfare. Markets for these goods, however, are underdeveloped, for all of the historical and institutional reasons described in previous chapters. This means that there is room for innovative people to meet the demands of ethically minded customers within our current system.

One set of entrepreneurs trying to fill this niche are those trying to engineer meat alternatives. Recent growth and investment in some of these companies has led to a flurry of popular press speculating about the "end of meat."³⁸ Some of these companies are trying to make more

³⁷ F. Bailey Norwood and Jayson L. Lusk, *Compassion, by the Pound: The Economics of Farm Animal Welfare* (New York: Oxford University Press, 2011), 102.

³⁸ See, for example, Alton Brown, "Alton Brown on the End of Meat as We Know It," *WIRED*, September 17, 2013, <http://www.wired.com/2013/09/fakemeat/>; Kate Burt, "Is This the End of

convincing “meat-like” veggie burgers. Others are working to grow “real” meat in the laboratory apart from animals.³⁹ All such offerings share some advantages in the marketplace. First, unlike some of the more “humane” farming methods, these new firms can take full advantage of scale and industrialization. Once the recipe for the ultimate veggie burger is set, it can be produced in a factory and delivered worldwide. Where small local farms cannot compete with the low prices of conventionally produced animal products, a mass-produced plant-based alternative, in theory, could.

A second advantage that these meat-alternatives enjoy is clear information channels. A small farm will always suffer from the information asymmetries that plague long supply chains, leaving their customers ignorant of their production practices. While plant-based meats might have customers worried about where they source their soybeans, they will never have to defend their treatment of animals. In this sense, the label “vegan” can be counted as a credible signal to concerned customers where the label “humane” usually cannot. In fact, these meat-alternatives can capitalize on a number of food-related concerns simultaneously. A veggie burger that manages to be vegan, gluten-free, GMO-free, low-fat, and organic can appeal to a wide variety of niche food markets all at once, increasing their room for growth in the market.

Other firms can fix the information problems that plague animal agriculture by better connecting consumers with producers. Companies like Whole Foods have used their connections to suppliers to create in-house labeling schemes to better inform customers about production techniques and sustainability. By providing this service to consumers and producers, they can attract new customers, capture some of the value that consumers are willing to pay for that knowledge, and charge higher prices. It seems likely that technological improvements could make connections along

Meat?,” *The Independent*, May 19, 2012, <http://www.independent.co.uk/life-style/food-and-drink/features/is-this-the-end-of-meat-7765871.html>; Rahim Kanani, “The Future of Meat Is Meatless, Just as Tasty, and About to Change the World,” *Forbes: Leadership*, March 6, 2014, <http://www.forbes.com/sites/rahimkanani/2014/03/06/the-future-of-meat-is-meatless-just-as-tasty-and-about-to-change-the-world/>.

³⁹“Silicon Valley Gets a Taste for Food,” *The Economist*, March 7, 2015, <http://www.economist.com/news/technology-quarterly/21645497-tech-startups-are-moving-food-business-make-sustainable-versions-meat>.

supply chains even easier in the near future, allowing consumers to make decisions on ethical criteria and support ethical producers.

Property Rights and Markets for Animals?

Each discipline has something different to offer. While economists have contributed substantially to our understanding of common resource problems, they have done relatively little work incorporating the interests of animals. Given this, there seem to be a couple of important lessons regarding animal ownership to be gleaned from this literature. First, human interaction with free-living animals can fall prey to the well-understood problems with the management of common resources. In too many cases, these problems have resulted in species extinction. If we want more cases like the American bison and fewer cases like the passenger pigeon, it behooves us to consider the ways we organize human-animal interaction, and how we assign responsibility for care.

The clear advantage that property rights in animals create is that they assign the care of a particular animal to an individual. For free living animals who have little interaction with humans, this is unimportant, but for animals who are in constant contact with humans, responsibility for care must be assigned. This approach is clearly problematic, however, when the animal is owned in order to be slaughtered at a young age, or contained for a research experiment. If human-animal relationships are going to involve ownership, the control of the human should be predicated on a legal responsibility to protect the real interests of the animal. Currently, this is almost never the case.

This literature on property rights and environmental protection also provides some reason for optimism about progress for animals located solely in private sector entrepreneurship. The recent rise of companies that are creating ever more creative plant-based alternatives to animal products is a good sign. While these endeavors are able to proceed today through private venture capital, they are at a disadvantage, relative to conventional meat producers, because they do not receive the same

government support.⁴⁰ If we wanted to spur further innovation and level the playing field for meat alternatives, the government could either eliminate current farm subsidies, or equalize them across food types.

The arguments in this chapter are unlikely to convince animal advocates that property law can be an ally. There are numerous ways that animals' status as property presents a major barrier to the pursuing progress in the economy for animals. The next two chapters will consider the arguments for the abolition of animal ownership, and then propose a property law reform.

⁴⁰While much farm support goes to plant agriculture, as noted earlier, Simon notes that 63% of farm subsidies directly or indirectly support animal products. Only a small part of these subsidized products can be used to make plant-based meats. David Robinson Simon, *Meatonomics: How the Rigged Economics of Meat and Dairy Make You Consume Too Much—and How to Eat Better, Live Longer, and Spend Smarter* (Newburyport, MA: Conari Press, 2013).

10

Ownership and Animal Oppression

In contrast to the largely favorable view of property rights among economists, animal advocates have often espoused strong criticism of human ownership of other animals. This position is not universal in the animal rights literature, however, and the disagreements between animal ethicists can be enlightening. This chapter will examine the case for the abolition of human ownership of animals, sometimes referred to as “animal liberation.” Some of the most prominent animal advocates have placed this goal at the very center of their philosophy.¹ I will argue, however, that animal liberation is a laudable goal, but not ideal, since retaining some kind of ownership—albeit reformed—could play an important role in maintaining peaceful human-animal relations.

¹Tom Regan, *Defending Animal Rights*, repr. ed. (Urbana: University of Illinois Press, 2006); Tom Regan, *Empty Cages: Facing the Challenge of Animal Rights* (Lanham, MD: Rowman & Littlefield, 2005); Gary L. Francione, “Animals—Property or Persons?,” in *Animal Rights: Current Debates and New Directions*, ed. Cass R. Sunstein and Martha C. Nussbaum (New York: Oxford University Press, 2006), 108–42; Gary L. Francione and Robert Garner, *The Animal Rights Debate: Abolition or Regulation?* (New York: Columbia University Press, 2010).

Animals as Property

The property status of animals clearly places them on one side of a legal dualism. There are “persons” and there are “things.” Non-human animals, in the eyes of the law, are usually viewed as “things.” This means that animals cannot have, in the legal realm, rights or duties, nor can they enter into contracts.² Any harm done to an owned animal is, in legal terms, only recognized as a loss to the animal’s owner. As noted earlier, this makes it very difficult to find that an owner is “guilty” of harming their owned animal, unless they blatantly disregard animal welfare regulations.

Much Western property law regarding animals is decidedly anthropocentric. When animals are protected, those protections are defined not by animal interests, but by human interests. Human-centric institutions of oppression always get exempted from laws that protect animals from humans.³ Humans grant legal protection to animals on human terms, to animals that humans prefer, in ways that will not upset human practices of animal use. The result is that the suffering of animals often only becomes a legal issue when the suffering has some economic implications for the owner, and that the vast majority of human-imposed animal suffering is exempted from any kind of protection under the law. Even when the law protects against “unnecessary” suffering, the standard regarding what is “necessary” is based on human, not animal, interests. Moreover, the human interests can be trivial. Francione argues that those protections that animals do have are largely oriented toward the human use for that animal.⁴ He maintains, for example, that the limited protections that research subjects enjoy are in place to serve the purposes of the validity of the experiments, and farmed animal protections are in place to ensure that the food is high quality.⁵

²Gary L. Francione, *Introduction to Animal Rights: Your Child or the Dog?*, (Philadelphia: Temple University Press, 2001); Thomas Kelch, “Toward a Non-Property Status for Animals,” *NYU Environmental Law Journal* 6 (1998): 531.

³Francione, “Animals—Property or Persons?”

⁴Gary Francione, “Reflections on Animals, Property, and the Law and Rain Without Thunder,” *Law and Contemporary Problems* 70, no. 1 (January 1, 2007): 9–58.

⁵There has been some disagreement about this point, but, in Francione’s defense, most animal protections can be justified in multiple ways, and there are few protections that cannot be justified instrumentally as means to human-oriented ends.

One of the primary ways that current property law makes animal advocacy difficult, is in the legal standing of animals and their owners. The “standing” of a person in the law defines which kinds of complaints they can bring before the court. If you witness a person saying something that is libelous against a second person, you would not have standing to sue the first person for libel; only the person damaged would have that right. Because harm to animals is conceived, in the law, as harm to the owner, only the owner has the standing to go to court on behalf of an animal. Animal protection law limits the actions of owners towards their property, but the only entity that has standing to bring a suit against a property owner for their treatment of their property is the state.⁶ The implication is that animals are only protected against the interests of their owners if the state is zealous in upholding animal protection law. Often it is not.

Do Animals Have a Right to Liberty?

Some animal advocates favor abolition of animal ownership on pragmatic grounds, arguing that this legal status for animals is the primary barrier to recognizing the interests of animals in the legal, political, and economic realms. Most abolitionists, however, oppose ownership because they view some form of legal liberty to be one of the essential rights that humans should respect for at least some animals. Much of the disagreement about animal ownership in the animal ethics literature is based on disagreements about the specific rights that animals deserve to have recognized, not necessarily the fact of animal rights.

Two of the most prominent recent advocates for abolition have been Gary Francione⁷ and Tom Regan.⁸ Francione argues for abolishing ownership for pragmatic and principled reasons. For example, he holds that there cannot be meaningful protection for animals in the economy as long as they are legally treated as means to some human end. In this sense, the property status is a barrier to other important rights. Francione also

⁶ Kelch, “Toward a Non-Property Status for Animals.”

⁷ Gary L. Francione, *Animals, Property, and the Law* (Philadelphia: Temple University Press, 1995).

⁸ Regan, *Empty Cages*.

argues that animals' status as property inevitably places them in the realm of "mere things," making it impossible to give them the equal consideration that is his minimal ethical requirement.⁹ These arguments impel Francione to the position that the right to not be property is the most important right that can be recognized.

Similarly, Tom Regan has been a long proponent of a strong "animal rights" position rather than a proponent of "animal welfare." He argues that, as "subjects of a life," many animals are subject to basic moral consideration by humans, and certain basic rights. His case for rights rests on the capabilities of many animals, of which, he argues, resemble the capabilities of humans:

"Some non-human animals resemble normal humans in that, like us, they bring the mystery of a unified psychological presence to the world. Like us, they possess a variety of sensory, cognitive, conative, and volitional capacities. They see and hear, believe and desire, remember and anticipate, and plan and intend. Moreover, as is true in our case, what happens to them matters to them. Physical pleasure and pain—these they share with us. But they also share fear and contentment, anger and loneliness, frustration and satisfaction and cunning and imprudence; these and host of other psychological states and dispositions collectively help define the mental lives and relative well-being of those humans and animals who (in my terminology) are "subjects of a life."¹⁰

Based on this qualitative similarity of experience between humans and other animals, he follows Kant¹¹ in advocating a universal duty to treat such beings as ends rather than as means. In particular, this position rules out the kind of utilitarian cost-benefit analysis that makes up so much of economic thinking, and is also common in animal ethics.¹² Also, Regan points out that this rights theory rules out any pragmatic argument that animals' legal status as property might be warranted on the basis of the

⁹ Francione, "Reflections on Animals, Property, and the Law and Rain Without Thunder."

¹⁰ Regan, *Defending Animal Rights*, 42–43.

¹¹ Regan is careful to note that his theory is very similar to that of Kant, but differs substantially from Kant on the point of which beings should be subject to such respect, and on what basis.

¹² Most notably, see Peter Singer, *Animal Liberation: The Definitive Classic of the Animal Movement* (New York: Harper Perennial, 2009).

animals' own welfare, since this legal status is, by itself, an injustice. In short, Regan argues that abolition of animal ownership is a moral prerogative that naturally results from recognition of these rights.¹³ For most animals, Regan defines some of these rights to be life, liberty, and bodily integrity.¹⁴ These rights, as he conceives of them, rule out not just ownership, but most human uses of animals. In his view, the use of animals as food, fashion, entertainment, and research are all inconsistent with a consistent recognition of these basic rights.

In the legal literature, Kelch's view is similar, arguing that animals should be considered legal persons, and that humans have certain duties toward animals. These duties constitute "rights" which are best understood as each animals' right to fulfill its "telos" or to act in a way that is consistent with its nature.¹⁵ Kelch identifies three basic rights: (a) animals should be free from human inflicted pain except when it benefits the animal, (b) animals should be free from restraint except when protecting the animal, and (c) animals should be free from human interference with the physical conditions, including habitat, required for the fulfillment of the animal's telos. Kelch's argument is similar to Francione's and Regan's in that he places the autonomous liberty of individual animals at the center of their rights, and ascribes a volitional freedom to animals in pursuing their own interests.

One centerpiece of the arguments that these authors make is that humans and other animals are morally similar. Few of these authors make strong statements of moral equality between species, but all make a case that animal interests should receive a similar kind of consideration, even if human interests might, other things equal, outweigh the interests of animals. For example, Dunayer argues that "The boundary for rights belongs between beings and things, not between human and non-human animals. In all ways relevant to moral consideration, gorillas and shrimps resemble humans rather than trees or cars."¹⁶ Similarly, Regan and Francione make a number of comparisons between human

¹³ Regan, *Defending Animal Rights*.

¹⁴ *Ibid.*, 37.

¹⁵ Kelch, "Toward a Non-Property Status for Animals."

¹⁶ Joan Dunayer, *Animal Equality: Language and Liberation* (Derwood, MD: Ryce Publishing, 2001), 171.

slavery and holding animals as property.¹⁷ These authors argue that the principles and intuitions that justified the emancipation of human slaves and the recognition of the rights of women should also apply to animals in a similar, or at least analogous, fashion.

Arguments Against Abolition

The degree to which humans and animals can be said to have a similar interest in freedom is important. Those that argue for human ownership to continue in some form often differ from the abolitionist authors about what vital interests animals have. While it is accepted that humans are harmed when they are not being able to make some autonomous choices, or by not having some control over their future, some do not believe this is true of many animals. Cochrane, for example, argues that animals have no intrinsic interest in liberty.¹⁸ Following the American political philosopher John Rawls, he argues that to have an interest in liberty, an animal would have to be able to frame, revise, and pursue a conception of the good.¹⁹ Lacking this, most sentient creatures will not be harmed by living under the benevolent power of an agent that acts in their interest.

Sunstein, too, argues that the interests of animals could be preserved with ownership intact.²⁰ There are numerous ways that ownership can be limited so that owned animals do not become solely means to human ends. In many places, he argues, owners are under strict obligation to provide companion animals with food, shelter, and some minimal medical care. It seems plausible that this list of obligations could be expanded until these animals had most, if not all, of their basic interests fulfilled. Doing so would involve substantial regulation, and progress would

¹⁷ See, for example, Francione, *Introduction to Animal Rights*, 86–90; Regan, *Defending Animal Rights*, 37; Francione, “Reflections on Animals, Property, and the Law and Rain Without Thunder.”

¹⁸ Alasdair Cochrane, *Animal Rights Without Liberation: Applied Ethics and Human Obligations* (New York: Columbia University Press, 2012).

¹⁹ *Ibid.*, 11.

²⁰ Cass R. Sunstein, “Slaughterhouse Jive,” *New Republic*, January 29, 2001, <http://www.newrepublic.com/article/books-and-arts/slaughterhouse-jive>.

include expanding these obligations to the owners of other animals as well. Nevertheless, Sunstein argues, the oppression associated with ownership that scholars decry, seems not to be a necessary element of property law. What might be difficult to avoid, in Sunstein's view, is the set of cultural attitudes that come along with the language of "property" and "ownership."²¹ A case could be made that a change in language should accompany any change in property law, if humans retain legal control of animals.

Francione and Regan make the case that the culture of animal oppression is tied up with human ownership of animals, but they do not demonstrate that abolishing ownership would eliminate that oppression. Garner argues that property law is one piece of the larger social structure that places humans in positions of power over animals.²² He argues that at least two other factors are more central: ideology and economic interests. The ideologies that he points to include the classical liberal views common in the USA and UK, which emphasize human control over the natural world and human liberty. Even in the presence of major legal reform, these ideologies would still make animal exploitation acceptable in many places. Additionally, laws can significantly impact market opportunities, but many people will, even after a change in property law, still have a strong economic interest in animal use. Absent a cultural change, he argues, these economic incentives will continue to drive oppression.

Even the issue of legal standing seems to be an ideological, rather than legal, problem. The state already has standing to prosecute animal abuses in the courts, but few resources are allocated to this purpose. Granting standing to more individuals to sue on the behalf of animals will only have a moderate impact without broader cultural changes. In fact, without prior change in ideology and market demand, Garner argues, even dramatic property reform might have a minimal effect. The possibility of political ideology swamping the effect of legal change is a real one, but is difficult to evaluate. It is possible that legal changes could help usher in

²¹Ibid.

²²Robert Garner, "Political Ideology and the Legal Status of Animals," *Animal Law* 8 (2002): 77–91.

cultural and ideological changes that limit the practice of oppression and exploitation.

There are other scholars, who also oppose abolition, whose arguments are less important in this context. Some have argued, for example, that animals cannot be holders of rights.²³ Pragmatically, Cupp argues that eliminating the property status for animals, or even giving them standing in the courts, would likely overwhelm the courts with new litigation.²⁴ Because the essential interests might vary by species, and are an area of significant uncertainty, he worries that activists would be able to continually sue owners for any number of animal uses in order to push the standard for animal protection. He also worries about the “social upheaval” and economic cost of a widespread move.²⁵ Strangely, he does not take into account the role of the legislature and higher courts in setting standards for lower court actions, nor does he consider the standard ways that social upheaval and economic transitions can be managed.

While property law remains a central concern of animal advocates, the question of whether to abolish ownership or reform it is a contentious topic. In many ways, this topic divides animal advocates between those who advocate a “rights” based approach and those who favor a “welfare” approach. While there are plenty of people who inhabit a middle ground philosophically, the question of human use of animals pretty neatly divides these groups. Thinking in terms of animal rights can point toward important changes, both gradual and abrupt, personal and political.²⁶ Rights-based approaches that favor large-scale institutional changes, however, are also subject to all of the difficulties of large-scale social engineering: the consequences are widespread and complex.

²³ Carl Cohen, “A Critique of the Alleged Moral Basis for Vegetarianism,” in *Food for Thought: The Debate over Eating Meat*, ed. Steve F. Sapontzis (Amherst, NY: Prometheus Books, 2004), 152–66.

²⁴ Richard L. Cupp, “A Dubious Grail: Seeking Tort Law Expansion and Limited Personhood as Stepping Stones Toward Abolishing Animals’ Property Status,” *Southern Methodist University Law Review* 60 (2007): 3–54.

²⁵ *Ibid.*, 46.

²⁶ Francione, “Reflections on Animals, Property, and the Law and Rain Without Thunder.”

Rethinking the Goal of Abolition

While abolitionists make a strong case that property law is one of the central institutions of animal exploitation, abolishing animal ownership may not be necessary or wise. The dualism that rights scholars assert between “property” and “person” does exist in the law, but the way interests are protected is more complicated. As Sunstein argues,²⁷ there is a long continuum between the rights that a person enjoys and the legal status of inanimate objects. Significant progress can be made by moving animals along that continuum, setting high standards for animal protection and giving owners additional obligations to seek animals’ interests. Retaining animals’ property status is not merely possible, however, it may also be the best option for retaining peaceful human-animal relationships.

First, consider again Kelch’s proposed legal reforms, which were described earlier.²⁸ While most animal advocates would agree with his proposal to restrict human use of animals for food and experimentations, the freedom from human interference clause is more problematic. While it is true that humans do great harm to animals by limiting their freedom and destroying their habitat, it is also true that conflicts between natural animal behaviors and human life abound. Even loosely applied, a restriction on altering animal habitat for human purposes would require eliminating most human development and most plant-based agriculture.²⁹ If exceptions for agriculture are granted, and agricultural practices continue to include the death of countless rodents, birds, and other small animals, the restriction becomes almost devoid of meaning.

This conflict between basic protections for wild animals and human life illustrates the need for a way to manage human and animal interests in a world where humans and other animals will inevitably be sharing physical space. If all animals are free-living, and animals are in competition with humans for space and food, conflict is inevitable. In a world where all animals were free-living, and those animals were also granted

²⁷ Sunstein, “Slaughterhouse Jive.”

²⁸ Kelch, “Toward a Non-Property Status for Animals.”

²⁹ Richard Epstein, “The Next Rights Revolution?” *National Review*, November 8, 1999.

basic legal protections, many humans would, in the face of a conflict, have an incentive to drive the animals away. Currently, human owners are liable for damages caused by their animals. Their duty to care for the animal, and right to profit from the animal, is tied to their duty to minimize conflict with others. For free-living animals, there is no human representative with comparable duties, outside the state.

Human interests are pursued, economically and politically, by the humans themselves. Conflicts between humans can be adjudicated through private negotiation, by the institution of rules, or through the courts. Other animals, however, are unable to pursue their own interests in political and economic institutions. They cannot negotiate for themselves. This leaves three options for resolving human-animal conflicts: (1) there can be strict rules that automatically favor animal interests or human interests; (2) animal interests can be pursued by a human representative; or (3) animals and humans can be partitioned into different spaces to minimize interaction and conflict.

The first option represents two extremes, and the status quo is one such extreme, where most conflicts are resolved in favor of humans. Kelch's proposal could easily result in the opposite extreme, with animals given the legal preference. By most standards, this could quickly become legally, politically, and ethically problematic, since there are real vital human interests that could conflict with the interests of animals. Putting strong rules in place and then letting the courts adjudicate exceptions is a highly uncertain strategy. The third option is equally extreme, and represents the environmental ethic of minimal intervention. In practical terms, given human population, there would be little space on the planet for animals to thrive if not intermixed with humans.

The moderate but complicated option is the second, in which humans are given the responsibility of representing animal interests in the legal, political, and economic world. In current law, it is traditional to assign this "representative" function to owners, who have the strongest interest in, and knowledge of, individual animals. If humans and animals are going to have mutually beneficial relationships of any kind, moreover, it makes sense to tie those relationships to the function of legal representative, so that the incentives are aligned for those who stand the most to gain from an animal's flourishing are also the ones seeking the animal's interests in

the political realm. This is the main contribution of the economics literature on property rights and conservation—that ownership can sometimes work to align the incentives of private citizens toward public goals.

In current practice, human owners rarely pursue animals' interests in the legal system, in part because their economic incentives run counter to the interests of those animals. Only through a combination of radically new regulation of human-animal relations will that practice change. In addition to granting animals legal protections, moreover, it is vital that the state and other organizations be designated the power and obligation of checking the power of owners, pursuing the interests of animals over and against unjust owners' actions. This is the function currently held by the state, in upholding animal protection statutes and as the legal representative of all free-living animals.

The Limitations of State Ownership

The alternative to having individual owners tasked with representing animals and giving the oversight power to the state is to reverse the arrangement. The government could be the *de facto* owner for animals, with private groups given the power to sue the government for improper protection. This is, in effect, what abolitionists propose, since all free-living animals are currently considered the property of the state. This immediately raises the specter of human conflicts with free-living animals being decided in the courts. For some critics of animal rights, the power that such an arrangement grants to the state, ostensibly on the behalf of non-enfranchised constituents, is a source of concern.³⁰ The question of which interests get recognized, for which animals, and at what cost, is a dilemma for all animal law, and would need to be worked through with care, to prevent the co-option of animal protection for the pursuit of other goals. This, however, is just one of a number of reasons why the prospect of the state being the ultimate representative of animals in the political realm is problematic.

³⁰David R. Schmahmann and Lori J. Polacheck, "The Case Against Animal Rights," *Boston College Environmental Affairs Law Review* 22, no. 4 (1995): 747–81.

First, the history of state management of animals is as dark as is private ownership. Because governments have always been under the control of humans, acting in the interests of certain humans, their record of protecting animals is weak. In animal agriculture, the state has long subsidized animal products and animal food. As outlined in Chap. 4, consumer preferences for animal products are partially artificial, buoyed by government-supported advertising and artificially low prices. The state has also been a large funder and driver of animal research in many countries. In the USA, the National Institutes of Health and the National Science Foundation fund much basic biological research. As noted in Chap. 8, it is FDA requirements that drive the vast majority of animal research in the private sector. Many of the worst animal agricultural practices moreover, have come out of agricultural research facilities that are also government funded.

The record of the US government is not much better with free-living animals. Many of the worst human-inflicted atrocities on other animals have been aided or encouraged by the state, if not the direct result of state action. The massive destruction of the free-living North American bison was brought about through cooperation between the military and private interests. Wolves too, were considered a threat to agricultural interests, and so were killed off in many areas, with hunters given a government bounty. Current practice is somewhat better, as the Endangered Species Act provides some legitimate protection to those animals in danger of extinction. Governments are also more likely to recognize the value of animals as part of a large ecosystem than was the case 100 years ago.

Those animals that are not in danger of extinction, however, are subject to the power of a government engaged primarily in “natural resource management.” The populations of many wild animals are controlled through government-supported hunting and fishing. While there are ecological reasons for supporting population control of some species, like deer, in the absence of their natural predators, it is not clear that the interests of the deer, bird, or fish populations are well-represented by the government. The economy of hunting and fishing, and the interests of those who participate in these activities, drive the stocking of lakes with fish, and the management of wild, often non-native game birds. While their lives are likely more pleasant than those animals housed in intensive

confinement agricultural facilities, these animals, too, are kept and managed for the purpose of human consumption.

It is clear, then, that government ownership of free-living animals, has been thoroughly anthropocentric, just as private ownership often is. The logic of natural resource management depends on the same anthropocentric cost-benefit analysis that drives the private use of animals. Those animal populations that provide important services to humans are carefully preserved, those that provide no services are considered “pests.” The relevant government agencies are actually more constrained than are private owners. The law tasks them with managing the free-living animal populations for current and future human use and enjoyment, whereas private owners are free to pursue other priorities.

The fact that governments tend to be anthropocentric is unsurprising given that humans have exclusive control over government power, and given entrenched anthropocentric ideological interests. If traditionally exploited human populations have struggled to gain a voice in government, it is unsurprising that animals, as of yet, have little influence in the government. As Garner notes, the deep ideological sources of anthropocentrism will likely need to be addressed in conjunction with pro-animal legal reform, or there is little hope for real progress.³¹ Only when government priorities are officially rewritten, and responsible humans are given the ability to check the power of the government, can we expect government actions that are reliably benevolent toward non-human animals.

Conclusion

Property law is one of the primary ways we delegate political control across the population of humans. As a result, animal advocates are quick to point to human ownership of other animals as one of the key institutions of animal exploitation. Unfortunately, we cannot remove the control of human owners without coming to terms with the underlying politics and economics. Human-animal interactions will continue to be the location of conflicting interests, and so it is important that institutions are

³¹ Garner, “Political Ideology and the Legal Status of Animals.”

designed to manage those conflicts so that peaceful relationships between humans and other animals are possible. Reshaping institutions is difficult work, in part because the system has been built over time, with a long complementarity between different elements of the political, economic, and legal system. Dramatic changes will require simultaneous action on all fronts.

The following chapter will start to describe how these changes could be made, starting with property law. While the more radical solutions proposed by prominent advocates are tempting, given the scale and history of animal oppression, I will argue that moderate changes may be able to cumulatively do more good. One important intuition that guides this analysis comes from the last two chapters. Human interaction with the non-human world has often been violent and excessive. The only successful way to achieve something that approximates progress is to respect the power of local interests, both human and non-human, and set the stage for genuinely mutually beneficial relationships.

11

A New Kind of Ownership

Once you accept that animals have ethically and socially relevant interests that humans have a duty to respect, the need for property reform becomes clear. Current law gives owners a free reign to disregard the interests of the animals under their control. Owners are even encouraged, in some cases, to manipulate animals in destructive ways, in order to increase the market value of the animals' bodies. Rejecting the market for animals entirely would have a certain ethical purity to it, but could be a practical disaster for both animals and humans. Instead, some scholars have explored ways to make substantial changes to the way animals are viewed in the legal system, by redefining the legal relationship between owner and animal.

The study of animal ownership in the last two chapters points to four necessary elements of a new property status for non-human animals. First, the law should recognize the intrinsic value of animal interests, as defined by knowledge of biology and natural behavior. This recognition need not take the form of absolute positive rights that the state must provide. Noting that animals have an interest in adequate nutrition does not necessarily require that individuals or the state ensure that no free-living animal goes hungry. Recognition of these interests would, however,

allow a balancing of human and animal interests by the law, so that trivial human preferences cannot result in animal exploitation. Most importantly, though, this kind of recognition would be the basis for consistent legal status for animals despite arbitrarily differing human preferences and historical relationships. Dogs and pigs should warrant similar consideration of interests, despite different histories.

A second goal of legal reform should be the regulation of animal use sufficient to limit conflicts of interest between owners and animals. As long as it is legal to starve chickens in order to increase their egg production, or selectively breed turkeys until natural behaviors are painful, there will be an economic incentive to engage in such behaviors. Strict legal limits on animal use will eliminate the most egregious destructive economic incentives. Economically, such regulations operate similarly to labor market regulations on wages, benefits, and worker safety rules. In the absence of such rules, competition can make unethical behavior necessary in the marketplace. In the presence of adequate regulation, employers are freed from the most destructive competitive incentives.

A third element of legal reform should be an element of individual responsibility. Public or common ownership, or complete abolition, will leave animals with no legal and political representatives that have a stake in their individual well-being. Currently, ownership grants privileges to owners, but also assigns them duties to avoid the worst mistreatment and negligence, and makes them liable for damages that their animals cause. The owner becomes a legal and political representative for the animal. Absent this individual responsibility, we would be faced with the prospect of either a very large state bureaucracy managing human-animal conflicts, or physical separation between humans and other animals.

The final element of this new understanding of ownership should be a clear legal infrastructure of oversight for preventing the abuse of animals by owners. This would have to include legal standing for animals to sue owners (through a human agent) and the legal ability to collect damages for harms. If properly enforced, with public and private empowerment, the state could play its proper role, not as steward of animals for human ends, but protector of last resort for animals in situations of conflict.

Equitable Self-Ownership

The most promising proposal for legal reform comes from David Favre, who has argued for a new form of self-ownership for animals.¹ His proposal is to convert the ownership of animals into a guardianship by separating the legal and equitable components of current property law. There is ample historical precedent for equitable ownership to be granted to an individual that does not have legal control of a piece of property. This is done in a trust, when one person manages property for another person's benefit. In this case, the property rights are split between at least two people, each with different kinds of ownership claims. While this is not sufficiently similar to provide compelling legal precedent for animal self-ownership, only small changes would have to be made in the law that, once completed, would allow animal law to inhabit a space that is legally well-defined.

Favre's central innovation is to note that if equitable ownership can be granted to a person who does not have other claims to property, then equitable ownership could also be granted to animals. This would give animals a limited "self-ownership" in that the owner would be legally obligated to make choices in their interests. Some of the rights of the owner would instead belong to the animal, even if legal control and decision-making was solely granted to the human owner. This self-ownership would thus be far more limited than that of a free-living animal, since owned animals would not have the same level of autonomy. Such an arrangement would change the legal status of animals, however, in some important ways.

First, equitable self-ownership would change the position of an owner into a "trustee" or "guardian." Because the ownership of the animal would be tied to the interests of the animal, the prudential decisions of the owner would have to be justified by a certain guarantee of animal well-being. The relationship would thus be analogous to that of a parent, where control is maintained, but there is a long legal tradition of obligations. Moreover, legal disputes would have to consider the interests of the

¹ David Favre, "Equitable Self-Ownership for Animals," *Duke Law Journal* 50, no. 2 (November 1, 2000): 473–502; David Favre, "A New Property Status for Animals: Equitable Self-Ownership," in *Animal Rights: Current Debates and New Directions*, ed. Cass R. Sunstein and Martha C. Nussbaum (New York: Oxford University Press, 2006), 234–50.

animal. The owner of an animal would be responsible for a broader set of interests than a mere trustee, moreover, since a trust is usually limited to financial management. While it might be plausible for an owner to act in the financial interest of an animal, the owner would also have to consider their social and biological interests.

The specific interests that would be legally recognized for animals would necessarily be species-specific—even basic biological interests differ widely between fish and horses. The basic infrastructure for the recognition of these interests would come from anti-cruelty laws.² An important change, however, would be that such interests would have to be based in a knowledge of the animals' natural inclinations and biology. Current anthropocentric laws base protections, instead, on human use. Vast differences in protection between dogs kept as companion animals and those used in research would be untenable if the basis for animal protection was the species, not the anthropocentric economic function. These species-interests that would have to be respected by owners are not unlike the kinds of rights proposed by other animal advocates.³

The complexity of the resulting animal protections would be manageable. Consider, for comparison, that there are already numerous species-specific codes of animal treatment created by private organizations for agriculture, animals used in research, and care of companion animals. The prospect of coming up with similar minimum standards for animals kept as human property would be manageable for veterinary and ethological experts, and adjudicated through legal precedent. It would be easy to imagine the creation of national regulatory agencies tasked with issuing guidelines and pursuing legal action against the worst instances of animal abuse.

This kind of legal change could have real advantages over the status quo, especially in terms of the requirements for reform outlined earlier. Importantly, regulation would be sufficient to establish the intrinsic ethical importance of animal interests. In the normal course of law, when the intrinsic value of human life is protected, it is done primarily by

² Favre, "Equitable Self-Ownership for Animals," 498.

³ Thomas Kelch, "Toward a Non-Property Status for Animals," *NYU Environmental Law Journal* 6 (1998): 531.

banning the kinds of relationships and actions that are inconsistent with human dignity. Similarly, animal dignity can be recognized by eliminating certain human uses and codifying recognition of animal interests. If the duties of animal owners were specified on the basis of animal biology, and truly respected the core interests of each species, many of our worst instances of exploitation would be eliminated. Moreover, these kinds of regulations would create the basis for consistent treatment across species.

In terms of economic institutions, it is important to note that this kind of regulation can also eliminate the perverse incentives that pit owners' interests against those of animals. If pigs are valued in the marketplace primarily as meat-producing biological machines, then their value is determined by their ability to produce meat, either by growing or breeding. If, on the other hand, it is illegal to kill an animal at a young age for food, since this violates one of the most basic interests of the pig (life), then this source of market value will disappear. If animals are eaten, it would likely be after a suitably long natural lifespan. When this market is radically changed, the incentives facing the owner of a pig are changed as well. There is no longer an incentive to unnaturally fatten the pig or confine pigs to small sterile spaces, because the motivation for owning pigs would change. Far fewer domesticated pigs would exist and those that did would likely serve some function on a farm or as a companion animal.

Legal Standing and Oversight

One of the primary benefits of this new property status is the change in legal standing that would be created. Animals, as beings with legally recognized interests, would have standing in court to sue their owner or a third party that has caused harm. This remedies one of the most serious critiques of the current property status of animals. Because animals do not have standing in court, harm to animals, in some cases, can only be remedied if and when the market value of the animal, as property, is harmed. Damages are often limited to the harm done to the market value of the animal. Imagine, for example, that a person harms a cow by poisoning the animal, and that the poison is remediable but is more

expensive than the market value of the cow. Under current law, it is plausible to claim that the person at fault would not be liable for the amount of money it would cost to treat the cow. Instead, the owner could only bring suit for the market value of the cow.⁴ If the law recognized the cow's interest in life and health, the owner and cow could sue, and the court could consistently hold the poisoner liable for, at minimum, the cost of treatment for the cow, plus damages to the cow's well-being while sick.

Even more importantly, animals mistreated by their owners could, through a human representative, bring suit against their owner. It would not only be the state that has the ability to enforce anti-cruelty laws, since private parties could be empowered to represent animals in those cases where substantial evidence could be collected. The obligation would not just be between the individual owner and the state, but between the individual owner and the animal. This could dramatically change the enforcement problems endemic in animal protection laws since, in practice, governments rarely devote enough resources to animal protection to ensure widespread compliance.

Legal standing for animals would face some complications. Under normal circumstances, legal standing rests on three criteria: (1) the demonstration of injury, (2) a causal connection between the injury and the conduct of the defendant, and (3) demonstration that some part of the injury can be redressed by the judicial remedy.⁵ Favre argues that recognizing animal interests would require adding some additional criteria: (4) the interest thwarted by the action is of fundamental importance to the animal, (5) the interests of the animal plaintiff outweighs the interests of the human defendant.⁶ In short, while animals would have the ability to bring suit, the courts would have to evaluate the suit on the basis of the type of interests violated and the possible competing interests of the defendant. As Favre argues, considering animal interests in legal decisions

⁴ Gary Francione, "Reflections on Animals, Property, and the Law and Rain Without Thunder," *Law and Contemporary Problems* 70, no. 1 (January 1, 2007): 9–58; Gary L. Francione, *Animals, Property, and the Law* (Philadelphia: Temple University Press, 1995); Joan Dunayer, *Animal Equality: Language and Liberation* (Derwood, MD: Ryce Publishing, 2001); Kelch, "Toward a Non-Property Status for Animals"; David S. Favre, "Judicial Recognition of the Interest of Animals—A New Tort," *Michigan State Law Review* 2005 (2005): 333–67.

⁵ Kelch, "Toward a Non-Property Status for Animals."

⁶ Favre, "Judicial Recognition of the Interest of Animals—A New Tort."

does not mean that human interests are disregarded, but that balancing should occur, and occur in a consistent fashion.

The legal doctrine of “standing” serves the court by limiting the types of suits that the court needs to consider. Only those cases where there is real harm and substantial conflicts receive the costly attention of the legal system.⁷ In an anthropocentric legal system, however, the kinds of harms and conflicts that are considered worthy of the court’s time only include harms to people and conflicts between people. And yet, we see morally significant conflicts occurring on a massive scale throughout the economy, in part because there is little legal recourse for the animal victims. The danger, in opening up the courts to animals, is that a flood of litigation would limit the courts ability to do their job. This kind of problem could be easily managed, however, by political action. It is only in the absence of clear law and well-designed regulation that the courts will need to adjudicate massive numbers of human-animal conflicts.

One of the most important elements of this kind of proposal is practical enforcement. It is one thing to give owners legal duties toward their animals. In the absence of consistent enforcement and oversight, however, such laws would become arbitrary tools of power, inconsistent for both the humans and the animals. It is for this reason that intermittent government prosecution of egregious “abuse” cases is not sufficient. The regulations will only serve to change the nature of the economy in favor of animals if the enforcement is clear, consistent, and transparent. It is for this reason that a bureaucratic solution is often preferable to litigation. We have a whole body of institutions, including licensing and reporting requirements that would serve to make minimally ethical animal ownership routine.

Bringing About Change

The path from our current property regime to the proposed system is not legally or democratically simple. That said, there are multiple avenues for change that could be pursued simultaneously. Changes in the

⁷ David R. Schmahmann and Lori J. Polacheck, “The Case Against Animal Rights,” *Boston College Environmental Affairs Law Review* 22, no. 4 (1995): 747–81.

courts could start with complementary legal reforms, which can contribute to the precedent for more expansive court rulings in the future. For example, Favre points to small recognitions of animal interests that could be included in divorce law, such as a precedent that animal ownership should be, in cases of dispute, decided on the interests of the animal. Alternatively there could be legal recognition of trusts designed to care for the needs of particular animals.⁸ Expanding the recognition of standing for animals in the court system would also pave the way for the kinds of reforms discussed here. More broadly, Favre makes the case that harm to animals should be recognized beyond the monetary losses to owners.⁹

Fundamental changes in common law are, by design, difficult. Nevertheless, there are many cases in which the courts have made expansive rulings that have a large impact. Kelch documents three different justifications for such a change, and makes the case that the recognition of animal interests can be justified using each criteria.¹⁰ First, there can be a change in circumstances that warrants a change in law. The courts could recognize that the direction that technology and markets have taken over the last 100 years have left us unable to protect the dignity of animals in the ways that previous institutions allowed. Alternatively, the courts can recognize a growing moral or social enlightenment. Over the course of recent history, the courts have recognized a social consensus regarding some fundamental moral wrongs that were previously contested or ignored. This can be the basis for sweeping court decisions. Finally, justices could argue that previous precedent was wrong, on the basis of fundamental philosophic concerns with anthropocentric law, or by citing the social costs of our current treatment of animals.

Sweeping legal decisions require more justification than can be provided in this space, however, and it is likely that the time is not yet right for such a move. The changes required to implement these reforms of property law would require more than court actions, even if the courts can provide the impetus for wider change. The regulatory institutions

⁸David S. Favre, "Integrating Animal Interests into Our Legal System," *Animal Law Review* 10 (2004): 87–97.

⁹Favre, "Judicial Recognition of the Interest of Animals—A New Tort."

¹⁰Kelch, "Toward a Non-Property Status for Animals," 547.

necessary for this modified animal ownership require significant legislative action. This means that our current anthropocentric democratic institutions will have to be directed toward the interests of animals through a grassroots movement among concerned citizens. There are positive signs that such a movement has made some progress in recent years, as the number of self-identified vegans and vegetarians are on the rise.¹¹ However, democratic support for the kind of reforms proposed here is likely still years away.

What Are Property Rights?

Reforming property law, even in the measured way proposed here, confronts larger questions about the nature of property rights and their moral basis. Locke's conception of property grounds ownership in the individual, and not in the state. In this common view, it could be said that the individual has a moral claim to property that comes prior to the state. When a state restricts property use, or imposes a tax, then, it requires some substantial justification and/or compensation. In the realm of environmental policy, however, the individual's claim to property is often in conflict with larger social goals. This conflict is deeply ideological because it pits two fundamental political assumptions against each other. On the one hand those who believe that the property claims of the individual come prior to the interests of the environment seek less state intervention. On the other side, those who believe that social obligations to the environment have moral priority relative to property claims will favor wider state restrictions on property use. This ideological divide similarly separates the normal assumptions of economists from those who work in environmental ethics.¹²

¹¹Vanessa Barford, "The Rise of the Part-Time Vegans," *BBC News Magazine*, February 17, 2014, <http://www.bbc.com/news/magazine-25644903>; Anjali Sareen, "Interest In Vegan Diets On The Rise: Google Trends Notes Public's Increased Curiosity In Veganism," *Huffington Post*, April 3, 2013, http://www.huffingtonpost.com/2013/04/02/interest-in-vegan-diets-on-the-rise_n_3003221.html.

¹²Steven McMullen and Daniel Molling, "Environmental Ethics, Economics, and Property Law," in *Law and Social Economics: Essays in Ethical Values for Theory, Practice, and Policy*, ed. Mark D. White (New York: Palgrave Macmillan, 2015).

Those animal and environmental ethicists that favor a new legal status for animals or ecosystems will usually do so from one of two ideological positions. They may argue that the state has the privilege of regulating property, and rightly does so, on behalf of humans and the non-human world. Alternatively, they may argue that individual property claims come prior to the power of the state, but that animals, or ecosystems, also have a prior claim to self-autonomy that must be adjudicated. While distinctions between these positions are rarely articulated in the literature, they have a direct impact on the kind of property reforms that seem appropriate.

First, let us consider the position that the state has a claim over the non-human world, living and non-living, which comes prior to property claims by individuals. If this is the case, then regulations that alter the use of land or animals require no compensation. The state has the power to change the rules, and the moral authority to do so. This view is sometimes articulated by claiming that property ownership is an “office” that the owner holds as part of the governing work of the state.¹³ Changes in regulation are merely changes in the job description. The advantage of this view is that it is relatively easy to conceive of ownership including not just rights that other humans must respect and duties to other humans, but also duties to the property itself. The standing of the environment or of non-human animals, before the law, is not subject to the threat of the potentially destructive preferences of owners. This position is consistent with extensive regulation of ownership and commercial life.

The classical liberal political tradition, which is especially influential in the USA and UK, however, cautions against this ordering of ownership claims. The rights of property ownership have long been conceived of as a bulwark of individual liberty against the state. The rights of owners to make decisions about the use of property and commerce are at the heart of economic and political freedom. A position that places the state’s claims to property over those of an individual will come into stark conflict, then, with the Lockean

¹³ Christopher Essert, “The Office of Ownership,” *University of Toronto Law Journal*, forthcoming (August 28, 2012), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2137777; Larissa Katz, “The Regulative Function of Property Rights,” *Econ Journal Watch* 8, no. 3 (2011): 236–46.

political movements that have significant influence on the right. These political movements are especially suspicious of government regulation because it represents a tangible decrease in the power of individuals over and against the state.

An ideological position that raises the status of animals to be similar, or analogous, to that of humans could be consistent with the classical liberal tradition inasmuch as it locates the rights in individual animals, and demands that the state respect those rights. The advantage to this approach is that it does not assume a benevolent state that recognizes animal interests. Instead, the state is one more entity to be held accountable to the morally significant interests of non-human animals. This position will be more naturally consistent with abolition of animal ownership, rather than regulation, combined with changes in the legal status of free-living animals.

This ideological approach may be on even more tenuous political ground. The political movements and traditions that define democratic institutions in the USA and UK are built on anthropocentric assumptions. Adding more rights claims into the legal system, by recognizing non-human animals as legal persons, diminishes the powers granted to individual humans. The role of the state, in this approach, is to adjudicate between the rights of non-human animals and the rights of humans. Managing those conflicts would require significant changes in law, but also changes in democratic institutions, so that animal interests are recognized in a consistent fashion.

The reforms proposed here do not fit neatly into either of these ideological positions. The prospect of continued human ownership of some animals, combined with substantial legal recognition of animal interests, is a compromise. It places primary responsibility and discernment in the hands of the individual human owner, giving them a strong legal claim over and against the state regarding their social arrangements and way of life. In doing so, it allows both humans and animals to hold the state accountable for pursuing their respective interests. These proposed property reforms also imbue ownership with significant duties, however, outlined by substantial regulation. For this reason, in policy, it resonates with the first position. As a compromise, however, for ideological reasons it may be highly unsatisfactory to all camps.

Markets for Animals

One of the biggest philosophical barriers to human ownership, even in this restricted form, is concern about the existence of commercial trade in animals. If owners retain legal claim to an animal, even if that claim is now limited, would they be able to buy and sell animals at their whim? This particular element of property law could be retained, or eliminated. If it is eliminated, then human ownership could take on the institutional character of human adoption. Humans that desire guardianship of an animal have to go through a legally recognized agency and demonstrate their ability to care for the animal. This system has the advantage of limiting animal movements and facilitating examination of potential owners. It could also have severe consequences for the animals. If new owners are charged the cost associated with running such a system, it is quite possible that there would be far more animals seeking guardians than humans seeking animals. Given the number of dogs and cats that are killed each year in shelters, this seems like a likely outcome. Such a system would put up even more barriers to beneficial human-animal matches.

On the other side, a market for animals has some real advantages. More animals would be matched efficiently with human guardians, if the price of such animals was flexible. Most importantly, though, market prices send signals to animal breeders about demand for particular animals. Because the animal ownership regulations proposed here could have a large effect on practice, the market price for many animals would likely drop substantially. This would immediately send a signal to current owners to limit their animals' offspring, since there would be fewer buyers looking for animals after the regulation. In cases where many people desire a particular animal, however, the price would increase, incentivizing animal procreation.

The populations of human-owned animals are highly dependent on their use for food or research, which will change dramatically as these proposed regulations take effect. Even if the requirements are phased in to ease the transition, there will need to be a large shift of resources out of some industries and into others. The best way to manage that transition is for markets to assign prices to animals well in advance of the change.

This would send reliable signals to producers about the demand for their animals and the anticipated effect of the new regulation. The more reliable that the price information is as the implementation is phased in, the easier the transition will be.

It is important to note that the population-flexibility that markets allow is not just important during periods of transition. Well-functioning markets will be important for getting animal populations balanced in the long term. Permanent surpluses of unwanted animals, without a natural ecosystem to support them, will either put a significant financial burden on the state, or will result in animal killing to manage the population. In a system where individuals are given the primary responsibility for representing individual animals, shortages or surpluses of animals will undermine the functioning of the system. Finally, population management will help retain public support for the new animal legal status. The new set of institutions must be self-managing to a degree that animals are visibly better off under the new arrangement, or the system will not be politically sustainable.

Even with economic exchange of animals, there could still be some oversight of ownership, perhaps through animal owner licensing. Licensing for vehicle operation and some professional practices is widely accepted. These types of institutional arrangements could be a means for limiting animal ownership to those well-equipped to be good guardians. More importantly, a person's animal ownership license could be revoked upon repeated mistreatment or negligence. This would facilitate government oversight of the private responsibilities that attend animal ownership.

These pragmatic concerns, however, are only part of the concern that attends market exchange in animals. There is a long tradition of concern about markets undermining the value of the goods being exchanged. In particular, it is worth noting that markets can assign an exchange value to an animal, but that this exchange value need not communicate anything ethically relevant about the inherent value or dignity of the animal. The animal does not become less worthy of respect if the market price falls, nor more worthy of respect when it is in high demand. Recognition of the inherent dignity of animals is important, moreover, for human animal relationships. If people ignore the inherent value of an animal, and

pay attention only to the exchange value, then the purpose of ownership can quickly be oriented only toward the exchange value.

This is no minor concern. The modern practice of animal agriculture has often sacrificed those genetic characteristics that allow animals to flourish individually, in favor of characteristics that increase the market value of the animal's body. Decision-making based solely on the exchange value has effectively crowded out the possibility of decisions based on inherent value. Some scholars have argued that market mechanisms should be limited precisely because these material concerns will crowd out moral decision-making.¹⁴ Given the current economic exploitation of animals, it makes sense that animal advocates would be leery of markets.

This concern deserves some scrutiny. Elizabeth Anderson notes that this kind of market corruption can take two forms: constitutive and instrumental. Constitutive corruption occurs when the market exchange actually eliminates or replaces the value of the good. She cites gift giving and merit-awards as two examples of goods that, if purchased, become something different. Instrumental corruption, on the other hand, can occur when the value of a good is independent of the means of exchange, and where market values can create incentives to compromise the quality or value of the good. In the case of constitutive corruption, market exchange must be ruled out, but in the case of instrumental corruption, the problematic side-effects of market exchange could, in theory, be mitigated.

The case of animal exchange does not perfectly fit into this constitutive-instrumental distinction. It is clear that many of the worst cases of animal exploitation constitute instrumental corruption. Much of the early chapters in this book outlined the ways in which this occurs. These problems can be managed, however, through regulation, as they are with any number of production-quality issues across the economy. It is not clear, however, that the concern that animal advocates express regarding animal ownership can be limited to issues of instrumental corruption. In addition to this, there is also a concern that ownership of animals would

¹⁴Michael J. Sandel, *What Money Can't Buy: The Moral Limits of Markets*, repr. ed. (New York: Farrar, Straus and Giroux, 2013); Michael Sandel, "How Markets Crowd Out Morals," *Boston Review*, May 1, 2012, <http://www.bostonreview.net/forum-sandel-markets-morals>.

imply a kind of wrong that is analogous to that of slavery.¹⁵ The power relationship itself could be immoral.

This argument, that ownership of animals is like slavery, seems to push animal ownership closer to a kind of constitutive corruption. This argument works only if you accept that animals have an interest in autonomy or liberty that is similar to that of humans. Cochrane's argument,¹⁶ that animals have many ethically binding interests, but that liberty is not one of them, would rule out constitutive corruption. This difference within the animal-ethics literature, between those who advocate reformed ownership and those who advocate the abolition of ownership, hinges on this question of the nature of non-human animals. For animals that do not have an interest in liberty, ownership of the type outlined here could be an ideal arrangement, and human-animal relationships, even if commercial in nature, could be mutually beneficial. For animals that have an intrinsic interest in liberty, then the limitations to their liberty associated with being property, even with the proposed reforms, would be ethically unacceptable.

The proposal outlined here, and championed in a very similar form by Favre, can only be supported in one of two ways. First, it could be argued that this is a pragmatic productive path that would point modern economies in the right direction, perhaps leading to more radical reforms in the future. Second, it could be argued, on the basis of arguments similar to Cochrane's, that this new property status would be an approximation of a truly just social system. I am not equipped to adjudicate the philosophic disagreement between those who, like Sunstein and Cochrane, support limited ownership and those who, like Francione and Regan, oppose it. The bent of this volume leans toward the former, but I would accept the critique that ultimately society should move toward the views of the latter.

¹⁵As noted before, it is common to make arguments about animal ownership that draw parallels with human slavery. See, for example, Francione, "Reflections on Animals, Property, and the Law and Rain Without Thunder"; Gary L. Francione, *Introduction to Animal Rights: Your Child or the Dog?* (Philadelphia: Temple University Press, 2001); Tom Regan, *Defending Animal Rights*, repr. ed. (Urbana: University of Illinois Press, 2006).

¹⁶Alasdair Cochrane, *Animal Rights Without Liberation: Applied Ethics and Human Obligations* (New York: Columbia University Press, 2012).

12

Conclusion

The normal experience for animals under human control is a short unnaturally deprived life ending in mass slaughter. This is especially true for those who are raised and killed under modern industrial conditions for human use. While it is sometimes tempting to attribute poor animal treatment to the evil actions of a few unthinking or uncaring individuals, this attribution would be a mistake. Even normal practices in agriculture, research, pet breeding, and animal entertainment fit this description. The ubiquity of practices that are destructive to animals, even in the wealthiest countries of the world, constitutes an economy-wide systemic problem. While individuals can make small changes, no one person can change the rules of the system, which are consistently stacked against animals.

At the root of our economic system of exploitation is a way of thinking about the economy that is fundamentally anthropocentric. The interests of animals are not just marginalized in most economic thought, they are ignored entirely. Those few economists that have worked to integrate non-human sources of value into the economics discipline have made some progress in environmental thought, as in the ecological economics framework, but most have done little to consider explicitly the interests

of animals.¹ The result of this omission is that the discipline of economics is unable to consider, with any nuance, situations in which the interests of humans conflict with the interests of other animals. While much work needs to be done in the discipline to expand our thinking, I suggest a few starting principles. First, animals should be modeled as agents, instead of as resources. Explicitly considering, together, the preferences of humans and other animals, will create much more balanced and insightful studies of human-animal relationships and interactions. Second, we must recognize the ecological opportunity cost of raising animals in artificial conditions. Each of these animals likely replaces at least as many free-living animals in natural ecosystems. Our agricultural system, therefore, comes at a high cost.

Starting to think about the interests of animals in the system is only the start. It is also important to recognize that traditional ideological conceptions of property place humans in a position of ultimate power, without any corresponding duties to the natural world. This should be remedied by changing what it means to own an animal. We can reap some of the political and economic benefits of ownership while still recognizing that owners have the first duty to pursue the interests of the animal. While broad changes in property law would be politically contentious, even small changes can be made to establish the legal recognition of the interests of animals.

These conceptual problems—anthropocentrism and ownership—are significant, but the exploitation of animals in the economy is also legal and institutional. The normal practices of consumers and firms occur in the context of legal incentives, strict rules, competition, and limited information. Even those individuals who would like to shape an animal-friendly corner of the economy find the task daunting. Too often, ethical action on the part of individuals is difficult precisely because these actions run counter to the norms of the system. Individual consumers are faced with limited options, and little information about the options that they face. Given the difficulty of observing production practices, and given the

¹As noted before, the exceptions to this rule are Charles Blackorby and David Donaldson, "Pigs and Guinea Pigs: A Note on the Ethics of Animal Exploitation," *Economic Journal* 102, no. 415 (1992): 1345–69; and F. Bailey Norwood and Jayson L. Lusk, *Compassion, by the Pound: The Economics of Farm Animal Welfare* (New York: Oxford University Press, 2011).

cost savings associated with inhumane methods, customers rarely have easy access to products that are produced using less destructive methods. Similarly, firms face the twin constraints of technology and competition, making it impossible for most to raise animals profitably without adopting the confinement systems and slaughter practices that do so much damage. Meanwhile, government subsidies, state-sponsored marketing efforts, and minimal state standards for meat production push the system toward the current unsustainable and inhumane model.

In the midst of this system, it is easy for consumers and producers to take the path of least resistance. We have created a consumer culture that focuses on product attributes, price, and quality, but is largely blind to systemic consequences. Our corporate culture is defined by commercial institutions that are designed to pursue material profit. These institutions constrain individual participants to pursue these same goals in their vocation. While citizens may vote for environmental causes, or give their money to the local humane society, our most powerful economic choices are often sidelined from the ethics that could harmonize humans and other animals. This culture is an artifact of historical animal marginalization, and years of supporting tradition, but it is also a symptom of the way our economic system is built.

Many consumers have decided to change, on their own, in order to live a life that does not support animal exploitation. But consider the systemic walls placed between these consumers and their laudable ethical goals. In order to find food that they know is respectful to animals, a vegan diet is often the only choice. With great effort they may be able to find eggs from chickens living genuinely fulfilling lives, and possibly a few sources of meat. The vast majority of our food system, however, is closed to them. If the consumer would like to avoid products tested on animals, then most consumer chemicals are eliminated, as are important prescription drugs. Moreover, choosing to buy specialized goods is only part of the problem. If the person purchases a veggie burger from a company that, 99% of the time, sells industrially produced meat, they are still supporting, indirectly, the business model they aim to protest.

A farmer who decides to change their business model is similarly constrained. Only a very few farmers are able to connect with the customers willing to pay extra for animals raised using the less efficient, but more

humane methods. Most animal farmers work on contract for large corporations. Sometimes these firms dictate the entire production process to the farmer. Other times, the farmer has a free reign, but the going price requires using industrial confinement methods. Once a farmer buys into the modern model, they have little choice regarding many of the most harmful practices. Animal genetics are set by breeders. Castration, de-beaking, and de-horning are required by the confined quarters. Allowing pigs or chickens to live outdoors would require far more land and labor. The only real choice left to these farmers is to either follow standard practices or leave the industry.

Similar constraints exist throughout the economy. Medical researchers face few options in the hierarchical and heavily scripted world of biomedical research. Consumer goods manufacturers face government regulations requiring animal testing of their products. Pet breeders often have to choose between having a sustainable business and giving their animals a high quality of life. These constraints are not absolute, since we see innovative people finding alternatives every day, but they are powerful. Changes that will really alter the place of animals in the economy will require individual action, but grassroots passion will not be enough. Only when many actors coordinate and change the rules of the game can new sustainable systems be developed.

Creating a Better System

The best way for this type of coordination to happen in a complex economy is through government action. Public policy can be a powerful tool for aligning the actions of many toward social goals. Many policies have been examined throughout this book, and no one change will be sufficient in isolation. Taken together, however, the change could be dramatic. Consumers can be freed to act more ethically by giving them better information about ethical practices. A simple labeling system that communicates high standards would close the distance between consumers and producers immensely. Taxes and subsidies, now used to benefit industrial producers, could instead be used to incentivize the healthiest,

most sustainable, and most humane products. Finally, regulations should eliminate the worst industries and methods, so that consumers don't have to do extensive research to know whether chickens were tortured to produce their food. Without these government measures, producers and consumers will not be able to overcome the significant information costs that limit communication on all these dimensions.

For producers, acting alone is a recipe for disaster. Government regulation can eliminate the worst practices, however, and thus free up firms to pursue other models. If competition is pushing firms toward unethical practices, eliminating those practices does not stifle competition, it merely directs the competitive efforts in new directions. Firms can eliminate costs on many dimensions. The government can, through carefully crafted laws, make sure that firms do not cut costs by imposing them on animals. If, as a result of regulations, a firm or industry is no longer able to stay in business, then their model is not sustainable, and the resources should be used elsewhere. If regulations and subsidies were used to pursue a better system for animals, instead of ignoring them, the commercial world would respond quickly.

Finally, regulation of animal industries should be a part of larger legal recognition of the interests of animals. Even if animal and human interests are not given parity, the law could be easily changed for the better. In particular, property law should be reformulated to assign owners the duty to pursue the basic interests of the animals that they own. If this kind of change were supported by broadly consistent regulations about animal use, much animal exploitation would be eliminated. At the same time, animals would be given a status before the law that would provide an avenue for enforcement and oversight.

Moving in the direction of these changes would require a major political movement, and significant legislation. Even if this is not likely to occur in the immediate future, the practicality of the options before us is worth considering. Eliminating government regulations that encourage animal oppression is straightforward. Crafting consistent pro-animal regulations is no more ambitious a task than those routinely embraced by national and local legislative bodies. In the face of a world that assumes that animal exploitation is a necessary evil, it is important to note the ease

with which we could start to eliminate this evil. Our current way of life is neither necessary nor sustainable, and a more peaceful alternative would be available to us if our public priorities were to shift.

An Ethical Capitalism?

It is clear that a large part of the problem identified here lies in the very shape of our economic system. In this sense, then, it is reasonable to argue that our modern iteration of capitalism, oriented toward mass-production, trade, and consumption, is the problem. In another sense, however, capitalism is not the problem, inasmuch as a more ethical capitalist system is easily envisioned. Progressive voices too quickly condemn the economic and political system as a whole, largely because they fail to imagine the wide flexibility of the system we inhabit. With the advent of new laws, we have seen economy-shaking institutional changes that fundamentally alter the ethical orientation of the capitalist system. The American slave economy was a moral abomination that should have ended sooner, but its end did not doom American agriculture. Indeed, the system adapted quickly. In fact, flexibility is one of the strengths that can be consistently attributed to market systems. Similarly, laws eliminating child labor doomed entire business models to failure, but manufacturing adapted quickly, and schooling became the new norm for children.

Conservative voices, too, exhibit a startling lack of imagination if they assume that traditional human behavior drives the system, and not the other way around. It is too easy to extrapolate from past injustice, and assume that a better world is not possible, or not desirable. It is incorrect to assume that the moral character of the economy is based only on the preferences of the participants. It is true that human desires drive the economy, and that the preferences of individuals still bend toward animal oppression. The economy does not, however, consistently deliver whatever humans desire. Our system is set up to meet particular preferences, and to ignore others. Crafting an ethical capitalism must start with an acknowledgment of unethical human desires, but that acknowledgment need not be a surrender to the status quo. We have too much evidence that changing laws, changing incentives, and changing cultural narratives

can result in radical economic changes as well. Moral progress regarding animals is an economic goal that we can strive for.

If we start with the recognition that animals have inherent moral value, and then craft laws that reflect that, our economic system will easily conform. In the near future, human consumption patterns could be radically different, with plants and plant-based meat alternatives making up the bulk of our diet. We could eliminate the use of leather products and much animal testing almost without most people noticing. Animals abused in entertainment will likely become a historical oddity in the face of new technologies. None of these changes would require either the end of capitalism or radical social upheaval. They present us, instead with a set of achievable and pragmatic goals for our economic life together. All that remains is for us to embrace these goals and act accordingly.

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