



EDITED BY

ANNE

BARNHILL

MARK

BUDOLFSON

TYLER

DOGETT

≡ The Oxford Handbook of
FOOD ETHICS

THE OXFORD HANDBOOK OF

FOOD ETHICS

THE OXFORD HANDBOOK OF

FOOD ETHICS

Edited by

ANNE BARNHILL

MARK BUDOLFSON

and

TYLER DOGGETT

OXFORD
UNIVERSITY PRESS

OXFORD
UNIVERSITY PRESS

Oxford University Press is a department of the University of Oxford. It furthers the University's objective of excellence in research, scholarship, and education by publishing worldwide. Oxford is a registered trade mark of Oxford University Press in the UK and certain other countries.

Published in the United States of America by Oxford University Press
198 Madison Avenue, New York, NY 10016, United States of America.

© Oxford University Press 2018

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, without the prior permission in writing of Oxford University Press, or as expressly permitted by law, by license, or under terms agreed with the appropriate reproduction rights organization. Inquiries concerning reproduction outside the scope of the above should be sent to the Rights Department, Oxford University Press, at the address above.

You must not circulate this work in any other form
and you must impose this same condition on any acquirer.

Library of Congress Cataloging-in-Publication Data

Names: Barnhill, Anne / Budolfson, Mark / Doggett, Tyler, editors.

Title: The Oxford handbook of food ethics / edited by Anne Barnhill, Mark Budolfson, and Tyler Doggett.

Description: New York : Oxford University Press, 2018.

Identifiers: LCCN 2017012921 | ISBN 9780199372263 (hardcover : alk. paper)

Subjects: LCSH: Food—Moral and ethical aspects.

Classification: LCC TX357 .O94 2017 | DDC 641.3002—dc23

LC record available at <https://lcn.loc.gov/2017012921>

1 3 5 7 9 8 6 4 2

Printed by Sheridan Books, Inc., United States of America

CONTENTS

<i>Acknowledgments</i>	ix
<i>List of Contributors</i>	xi

1. Introduction	1
ANNE BARNHILL, MARK BUDOLFSON, AND TYLER DOGGETT	

PART I CONVENTIONAL AGRICULTURE AND ALTERNATIVES

2. Sustainable Agriculture, Environmental Philosophy, and the Ethics of Food	29
CLARK WOLF	
3. Farming, the Virtues, and Agrarian Philosophy	53
PAUL B. THOMPSON	
4. Food, the Environment, and Global Justice	67
MARK BUDOLFSON	
5. Genetically Modified Food	95
RACHEL A. ANKENY AND HEATHER J. BRAY	
6. Local Food Movements: Differing Conceptions of Food, People, and Change	112
SAMANTHA E. NOLL AND IAN WERKHEISER	

PART II ANIMALS

7. Concerning Cattle: Behavioral and Neuroscientific Evidence for Pain, Desire, and Self-Consciousness	139
GARY COMSTOCK	
8. The New Hunter and Local Food	170
CHARLES LIST	

9. Ethics for Fish 189
ELIOT MICHAELSON AND ANDREW REISNER

PART III CONSUMPTION

10. The Ethical Basis for Veganism 209
TRISTRAM MCPHERSON
11. Arguments for Consuming Animal Products 241
BOB FISCHER
12. Consumer Choice and Collective Impact 267
JULIA NEFSKY
13. Religious Dietary Practices and Secular Food Ethics; or,
How to Hope that Your Food Choices Make a Difference
Even When You Reasonably Believe that They Don't 287
ANDREW CHIGNELL
14. The Clean Plate Club? Food Waste and Individual Responsibility 313
JACLYN HATALA MATTHES AND ERICH HATALA MATTHES

PART IV FOOD JUSTICE AND SOCIAL JUSTICE

15. Racial Imperialism and Food Traditions 333
LEE A. McBRIDE III
16. Food Sovereignty, Justice, and Indigenous Peoples:
An Essay on Settler Colonialism and Collective Continuance 345
KYLE POWYS WHYTE
17. Food, Fairness, and Global Markets 367
MADISON POWERS
18. Multi-Issue Food Activism 399
JEFF SEBO

PART V ETHICS AND POLITICS OF FOOD POLICY

19. Public Justification and the Politics of Agriculture 427
DAN C. SHAHAR

20. Paternalism, Food, and Personal Freedom	449
SARAH CONLY	
21. Deceptive Advertising and Taking Responsibility for Others	470
SEANA VALENTINE SHIFFRIN	
22. Food Labor Ethics	494
TYLER DOGGETT AND SETH M. HOLMES	
23. The Moral Burdens of Temporary Farmwork	521
SABINE TSURUDA	

PART VI GENDER, BODY IMAGE, AND “HEALTHY” EATING

24. Eat Y’Self Fitter: Orthorexia, Health, and Gender	553
CHRISTINA VAN DYKE	
25. Food Insecurity: Dieting as Ideology, as Oppression, and as Privilege	572
TRACY ISAACS	
26. Shame, Seduction, and Character in Food Messaging	593
REBECCA KUKLA	
27. Obesity and Responsibility	614
BETH DIXON	

PART VII FOOD AND SOCIAL IDENTITIES, CULTURAL PRACTICES, AND VALUES

28. I Eat, Therefore I Am: Disgust and the Intersection of Food and Identity	637
DANIEL KELLY AND NICOLAE MORAR	
29. Morality and Aesthetics of Food	658
SHEN-YI LIAO AND AARON MESKIN	
30. Food Choices and Moral Character	680
KATE NOLFI	
31. The Etiquette of Eating	700
KAREN STOHR	

32. The Ethics of Being a Foodie 722
SUSAN WOLF

**PART VIII HISTORY OF PHILOSOPHY
AND FOOD ETHICS**

33. Who You Are Is What You Eat: Food in Ancient Thought 741
KATJA MARIA VOGT
34. Food Ethics in the Middle Ages 759
HENRIK LAGERLUND
35. You Are What You Eat, But Should You Eat What You Are?
Modern Philosophical Dietetics 773
JOHN GREY AND AARON GARRETT

- Index* 795

ACKNOWLEDGMENTS

We thank Andy Egan for help in getting this started and Caley Millen-Pigliucci, Isla Ng, Peter Ohlin, Emily Saccharin, and Andrew Ward for help once it was underway.

CONTRIBUTORS

Rachel A. Ankeny is Professor in the School of Humanities at the University of Adelaide.

Anne Barnhill is Research Scholar at the Berman Institute of Bioethics at Johns Hopkins University.

Heather J. Bray is a Senior Research Associate in the School of Humanities at the University of Adelaide.

Mark Budolfson is Assistant Professor at the University of Vermont.

Andrew Chignell is Professor in Religion and Philosophy, and in the University Center for Human Values, at Princeton University.

Gary Comstock is Professor of Philosophy in the North Carolina State University Philosophy and Religious Studies Department.

Sarah Conly is Associate Professor of Philosophy at Bowdoin College.

Beth Dixon is Professor of Philosophy at S.U.N.Y. College at Plattsburgh.

Tyler Doggett is Associate Professor of Philosophy at the University of Vermont.

Bob Fischer is Assistant Professor in the Department of Philosophy at Texas State University.

Aaron Garrett is Associate Professor of Philosophy at Boston University.

John Grey is Visiting Assistant Professor at Michigan State University Department of Philosophy.

Seth M. Holmes is Associate Professor of Public Health and Medical Anthropology at the University of California, Berkeley.

Tracy Isaacs is Professor of Philosophy and of Women's Studies and Feminist Research at Western University in London, Ontario, Canada.

Daniel Kelly is Associate Professor in the Department of Philosophy at Purdue University.

Rebecca Kukla is Professor of Philosophy at Georgetown University, and a graduate student in the Department of Urban Geography at the City University of New York.

Henrik Lagerlund is Professor of Philosophy at Western University in Canada.

Shen-yi Liao is Assistant Professor of Philosophy at University of Puget Sound.

Charles List is Professor of Philosophy at S.U.N.Y. College at Plattsburgh.

Erich Hatala Matthes is Assistant Professor of Philosophy, and Advisory Faculty for Environmental Studies, at Wellesley College.

Jaclyn Hatala Matthes is Assistant Professor of Biological Sciences, and Advisory Faculty for Environmental Studies, at Wellesley College.

Lee A. McBride III is Associate Professor of Philosophy at The College of Wooster (Wooster, Ohio).

Tristram McPherson is Associate Professor of Philosophy at Ohio State University.

Aaron Meskin is Associate Professor of Philosophy and Director of the Center for Aesthetics at the University of Leeds.

Eliot Michaelson is a Lecturer at King's College London.

Nicolae Morar is Assistant Professor of Philosophy and Environmental Studies and an Associate Member of the Institute of Ecology and Evolution at the University of Oregon.

Julia Nefsky is Assistant Professor in the Department of Philosophy at the University of Toronto.

Kate Nolfi is Assistant Professor at the University of Vermont.

Samantha E. Noll is Assistant Professor in the School of Politics, Philosophy, and Public Affairs at Washington State University.

Madison Powers is Professor of Philosophy, Francis J. McNamara, Jr. Chair in Ethics, and Senior Research Scholar, Kennedy Institute of Ethics, Georgetown University.

Andrew Reisner is Senior Lecturer and Docent in Practical Philosophy at the Uppsala University Department of Philosophy.

Jeff Sebo is Clinical Assistant Professor of Environmental Studies and Director of the Animals Studies M.A. Program at New York University.

Dan C. Shahar is Research Assistant Professor of Philosophy, Politics, and Economics at the University of North Carolina-Chapel Hill.

Seana Valentine Shiffrin is Professor of Philosophy and Pete Kameron Professor of Law and Social Justice at University of California, Los Angeles.

Karen Stohr is Associate Professor of Philosophy at Georgetown University and Senior Research Scholar in Georgetown's Kennedy Institute of Ethics.

Paul B. Thompson holds the W. K. Kellogg Chair in Agricultural, Food and Community Ethics at Michigan State University, where he serves on the faculty in the departments of Philosophy, Community Sustainability and Agricultural, Food and Resource Economics.

Sabine Tsuruda is a Ph.D. candidate in the Department of Philosophy at the University of California, Los Angeles.

Christina Van Dyke is Professor of Philosophy and Director of Gender Studies at Calvin College.

Katja Maria Vogt is Professor of Philosophy at Columbia University, New York.

Ian Werkheiser is Assistant Professor of Philosophy at the University of Texas-El Paso.

Kyle Powys Whyte holds the Timnick Chair in the Humanities at Michigan State University and is Associate Professor of Philosophy and Community Sustainability.

Clark Wolf is Director of Bioethics, and Professor in the departments of Philosophy and Political Science at Iowa State University. He is also a faculty member in the ISU Graduate Program in Sustainable Agriculture.

Susan Wolf is Edna J. Koury Distinguished Professor of Philosophy at the University of North Carolina, Chapel Hill.

CHAPTER 1

INTRODUCTION

ANNE BARNHILL, MARK BUDOLFSON,
AND TYLER DOGETT

THERE are seven billion people. Nearly one billion are estimated to be malnourished. Several million die each year of easily preventable hunger-related conditions. Yet others are living through a culinary golden age: new cuisines, old cuisines brought to new places, cookbook upon cookbook, and TV food shows. Food for a huge price. Food for cheap. But plenty of food for those who can afford it.

Some of the food is produced by raising and killing animals. Worldwide, tens of millions of buffalo are killed for us to eat, hundreds of millions of cattle and sheep, billions of pigs, and tens of billions of chickens.¹

Some of the food is produced by raising and killing plants. Worldwide, over 5 billion tons of crops are produced annually. This includes several billion tons of cereals, over a billion tons of vegetables and melons, and about half a billion tons of other fruit.² Such a large quantity of crop production has negative impacts on biodiversity, on soil and water quality, and on other aspects of the environment.³

Some of the food is produced by the people who eat it. Much of it is produced by others, others who labor in a range of circumstances. In 2007, Barbara Kingsolver published a book about her family's exhausting but idyllic life farming for themselves in Virginia, while John Bowe published one about agricultural slave labor in Florida.

Some of the food is marketed: piled in boxes with handwritten signs at a farmers' market or wrapped in plastic and put in a box with Count Chocula on the cover.

Some of it gets eaten. A lot of it does not. As Erich and Jaclyn Hatala Matthes write in their contribution to this book, up to 30% of rice produced fails to reach consumers.

¹ Böll Foundation, "The Meat Atlas," 2014, <https://www.boell.de/en/2014/01/07/meat-atlas>.

² FAOSTAT, "Crops," 2017, <http://www.fao.org/faostat/en/#data/QC>. USDA, World Agricultural Production Data, 2017, <http://usda.mannlib.cornell.edu/MannUsda/>.

³ Union of Concerned Scientists, "Hidden Costs of Industrial Agriculture," 2017, http://www.ucsusa.org/food_and_agriculture/our-failing-food-system/industrial-agriculture/hidden-costs-of-industrial.html.

Up to 50% of fresh produce fails to do so. Nearly 40% of food the United States produces is wasted. Still other food is not wasted, but is also never even intended for human consumption: it is instead turned into biofuels or used for other industrial purposes.

One might ask various ethical questions about the foregoing: Are the states of affairs good? Bad? Are individual people in them acting wrongly? Are things other than individual people—governments, corporations, collectives, economic orders—acting wrongly? If some of these actions are wrong, why are they wrong? Because they are unjust? Cruel? Oppressive? Or something else? Are agents who perform the wrongful actions blameworthy for doing so? If certain states of affairs (or policies or market structures) are not ethically good states of affairs, should they be replaced? With what?

Food ethics has developed various responses to these questions. It has made ever more careful, nuanced versions of arguments that date back to ancient philosophy. It has made new ones on new topics.

Food ethics, as an academic pursuit, is vast. It incorporates work from philosophy but also anthropology, economics, environmental sciences and other natural sciences, geography, and sociology. Scholars from these fields, including some philosophers, have been producing work for decades on the food system, and on ethical, social, and policy issues connected to the food system. Yet in the last several years, there has been a notable increase in philosophical work on these issues—work that draws on multiple literatures within practical ethics, normative ethics, and political philosophy. This Handbook introduces and adds to that philosophical work across multiple areas of food ethics.

A SHORT HISTORY OF RECENT WORK IN FOOD ETHICS

In a recent essay on the origins of food ethics, Paul Thompson distinguishes between what we here call food ethics—“a deliberative inquiry into the normative dimensions . . . of food”⁴—and the social movement to promote ethical states of affairs in the food system, the constellation of food producers, processors, marketers, transporters, preparers, and eaters that gets food from ground to mouth. This distinction between food ethics as an academic pursuit and its related social movement is a useful one, notwithstanding that some individuals are engaged in both pursuits.

As Thompson discusses, recent popular work on food ethics, fueled by and fueling the social movement he mentions, has followed a somewhat unsteady trajectory.⁵ Some classic books (*Silent Spring*, *Animal Machines*) and a documentary (*Harvest of Shame*)

⁴ Paul Thompson, “The Emergence of Food Ethics,” *Food Ethics* 1 (2016): 64–74.

⁵ Ibid.

appeared in the early 1960s. Two more classics (*Diet for a Small Planet* and *Animal Liberation*) appeared in the early and mid-1970s. Then there was a lull before *Fast Food Nation* and *Omnivore's Dilemma* appeared in the early and mid-2000s along with books and journals (*Food Politics*, *Gastronomica*, pieces in the *Utne Reader*) that were both scholarly and accessible.

And then came not just books and magazine articles but special issues of magazines, popular documentaries, TED talks, regular columns in national newspapers. Chefs now publish ethical arguments in addition to cookbooks. Food columnists now argue the ethics of veganism as well as sharing recipes.

Food ethics as a deliberative, academic inquiry could be traced back hundreds or even thousands of years. As Katja Vogt's, Henrik Lagerlund's, and John Grey and Aaron Garrett's contributions to this book show, ancient, medieval, and modern philosophers concerned themselves with questions of what one may and may not eat, of what consumption said about eaters, and of the ethics of production.

New technologies have always provided good, new subjects for popular food ethics: these technologies enabled the industrial farms that were the subjects of *Animal Machines* and *Harvest of Shame* and that were the background for *Silent Spring* and *Diet for a Small Planet*, as they were the background for *The Jungle* in an earlier era. These technologies are important to deliberative, academic food ethics too. The recent history of deliberative, academic food ethics might be traced to Peter Singer's work on animals and hunger in the early and mid-1970s, notably *Animal Liberation* and "Famine, Affluence and Morality." The journals *Environmental Ethics*, *Agriculture and Human Values*, and *The Journal of Agricultural and Environmental Ethics* were founded in 1979, 1984, and 1988, respectively, as the pace of papers on food ethics picked up. The 1990s saw the publication of books on philosophy and food, including books on food ethics by Deane Curtin and Lisa Heldke,⁶ Ben Mepham,⁷ Elizabeth Telfer,⁸ and Paul B. Thompson.⁹ By the new millennium, there was enough academic work to support three complementary histories of food ethics.¹⁰ More journals came: *Gastronomica* (2001), *The Journal of Animal Ethics* (2011), and *Food Ethics* (2016). Books came faster and faster. Food ethics, as a philosophical endeavor, now includes work on animals and hunger, but much more to boot: collective action, disgust, food justice, food labeling, genetic modification, locavorism, obesity, and the list goes on.

⁶ Deane Curtin and Lisa Heldke, *Cooking, Eating, Thinking* (Bloomington: Indiana University Press, 1992).

⁷ Ben Mepham, ed., *Food Ethics* (New York: Routledge, 1996).

⁸ Elizabeth Telfer, *Food for Thought* (New York: Routledge, 1996).

⁹ Paul Thompson, *The Ethics of Aid and Trade* (New York: Cambridge University Press, 1992); Paul Thompson, *The Spirit of the Soil* (New York: Routledge, 1995).

¹⁰ Hub Zwart, "A Short History of Food Ethics," *Journal of Agricultural and Environmental Ethics* 12 (2000): 113–126; Michiel Korthals, "The Birth of Philosophy and Contempt for Food," *Gastronomica* 8 (2008): 62–69; Thompson, "The Emergence of Food Ethics," 64–74.

OVERVIEW

This book takes in some of that vastness but, as a matter of course, not all. It gives a sample of some philosophical work on food ethics. It is split into eight parts.

Part I: Conventional Agriculture and Alternatives

Part I, “Conventional Agriculture and Alternatives,” surveys the industrial model of farming that dominates in developed countries, looking most closely at industrial crop farming and its environmental effects. Industrial agriculture is typified by large-scale, highly mechanized farms that grow a single crop on large areas of land and use liberal amounts of synthetic fertilizers, synthetic pesticides, synthetic herbicides, and genetically modified seeds. Industrial farms have larger capital inputs of fertilizer, irrigated water, fossil fuels, and so on per unit of land area than alternative forms of agriculture, and are in this way much more intensive than alternatives. These large farms are clustered in areas of natural advantage: the Central Valley of California, the prairies of Saskatchewan, the cerrados of Brazil, and so on.

Industrial agriculture aims for the production of the greatest quantity of food in the smallest amount of space with the least labor, all for the ultimate goal of maximum profits. Of course, these goals were also more or less pursued by some preindustrial farmers. In order to achieve these goals now, however, farmers must invest large amounts of capital in recent technological advances, which have in turn made possible huge increases in crop yields both overall and per unit of land area, and reductions in the amount of land and labor necessary to achieve those yields. These technological changes and economic forces put the “industry” in “industrial” and explain the transformation in almost every developed nation from agriculturally focused societies to something else.

As a result of this transformation, there has been a large increase in the amount of food produced on agricultural land. This was made possible by nineteenth-century plant and soil science that suggested that what plants need from the soil is just a few nutrients—nutrients that could be given directly to plants in the form of fertilizer—and by selective breeding that produced higher yielding seeds. It was made possible, too, by important subsequent technological advances and investments in machinery, synthetic fertilizers, synthetic herbicides, synthetic fungicides, synthetic pesticides, irrigation (sometimes in the form of large public works projects paid for by taxpayers, such as large dam and water transportation infrastructure, but also including technology such as improved drilling, center pivot irrigation, etc.), and by GMOs that produced more food and promised a reduced need for herbicides and pesticides. Previously, farmers had, of course, worked to fertilize, kill weed, fungi, and pests, and plant high-yielding, hardy plants. But recent technological advances have massively improved that situation

and enabled farmers to work much larger farms without much more work. A US government official described this new form of agriculture as containing “the makings of a new revolution. It is not a violent red revolution like that of the Soviets, nor is it a White Revolution like that of the Shah of Iran. I call it the Green Revolution.”¹¹ His term “Green Revolution” caught on and is now widely used to refer to the large increases in crop yields in the 1950s, 1960s, and 1970s that were associated with the development and deployment of important instances of the technologies we have described, especially as implemented in Asia and Latin America.

Larger farms located in the most advantageous places also enabled farmers to benefit from economies of scale: as farmers produced more, the costs they needed to pay for that production went down proportionately. This was aided by ever larger and more capable machinery. Larger farms reduced the number of farms, freeing up people to do other jobs. And the productivity of those large farms in certain especially agriculturally apt places enabled those farms to produce enough for places near and far. For example, whereas small states on the East Coast used to grow their own wheat, huge wheat producers in the Midwest and Great Plains—possessed of better natural resources than New England for growing wheat—eliminated that need. Whereas some places are unsuitable for growing much given their soil and climate, mega-farms in suitable spots made it possible to grow and then ship widely. But, at the same time, to make the most efficient use of many of these technologies and thus maximize the profitability of their farms, many farmers need to shift almost exclusively to monoculture—that is, planting all the same crop over a large area, and suppressing the growth of absolutely everything else. This is necessary because, for example, the combine harvester can very efficiently harvest many rows of corn, but, it cannot very well harvest a row of corn + strawberries + potatoes.

However, shifting to monocultures, like shifting to industrial agriculture generally, has environmental, social, and economic costs. Clark Wolf’s “Sustainable Agriculture” discusses the environmental costs. The essay considers various accounts of what sustainability is and then evaluates various practices according to whether they satisfy such accounts. Some of these are compatible with the industrial model. Others are alternatives to it.

Mark Budolfson’s “Food, the Environment, and Global Justice” also engages various conceptions of sustainability and argues that none should be the fundamentally important objective in connection with food systems or other societal issues. The bulk of his essay identifies and critically examines a standard form of argument for organic and vegan alternatives to contemporary industrial agriculture. This argument faces objections to its empirical premises, to its presumption that there is a single food system that minimizes harm along every dimension that matters and is best for the

¹¹ William Gaud, “The Green Revolution: Accomplishments and Apprehensions,” 1968, speech to the Society for International Development. Text on-line at <http://www.agbioworld.org/biotech-info/topics/borlaug/borlaug-green.html>.

environment, and to the presumption that the ethically best food system for us to promote is the one that would be either best in ideal theory or best from the perspective of our domestic society. He argues that determining which food system we should actually promote requires a complex global, empirically and ethically integrated assessment that includes a proper accounting for values of global justice in nonideal theory, where that proper accounting arguably recommends a view that is called “sustainable intensification” in the food science literature, which involves more elements of contemporary industrial agriculture than are favored by proponents of organic or vegan alternatives.

One aspect of industrial farming in its current form is the use of genetically modified crops, crops modified to be drought-resistant, to be more nutritious, but also to withstand various synthetic chemicals that can be applied liberally to them. In “Genetically Modified Food,” Rachel A. Ankeny and Heather J. Bray survey ethical arguments for and against the production and consumption of genetically modified food. They argue that there should be more public discussion of these arguments and of genetic modification in general.

In “Local Food Movements: Differing Conceptions of Food, People, and Change,” Samantha E. Noll and Ian Werkheiser discuss the local food movement—a movement that aims to create alternative food systems focused on local production and distribution, a shorter supply chain, and, in some cases, more community control. Localized food systems are seen as “providing an alternative and challenge to the corporate-led, industrialized, global food system by reconnecting food with environmental health and sustainability, social justice concerns, and the importance of place.” Yet the local food movement has been criticized as not accomplishing these goals because it does not mount a significant challenge to the status quo or more fundamentally because localized food systems do not have the aimed-for benefits (e.g., a globalized system can actually be more ecologically sustainable than having localized food systems). Noll and Werkheiser get beneath the surface of these critiques, identifying three distinct sub-movements within the local food movement, which differ in their goals and their conceptions of food. They discuss the strengths and weaknesses of these three sub-movements and which critiques get traction with which sub-movements.

In “Farming, the Virtues, and Agrarian Philosophy,” Paul Thompson considers the philosophical approach to agriculture that is found in *agrarianism*, and contrasts agrarianism with mainstream consequentialist and deontological approaches in ethics. Agrarianism emphasizes the unique nature and significance of farming—from Aristotle, who saw the household farm as a model for the state, to Thomas Jefferson, who saw farmers as the best citizens, to the work of early modern thinkers, to contemporary agrarian thinkers who see farming as having special importance for environmental ethics and sustainability. Thompson contrasts agrarian approaches to farming and agriculture with the dominant approach in food ethics, which assumes that agriculture “can be analyzed and ethically evaluated using the same concepts and norms that would be used to critique any other sector of the economy”—concepts from consequentialist, deontological, and contractualist approaches.

Part II: Animals

The second part of the book, “Animals,” is partly about the industrial model of agriculture—large scale, highly mechanized, concentrated in few locations—applied to animal farming. Many billions of animals are raised for our consumption each year, the vast majority of them at high stocking density in conditions that discomfit them in various ways.

Animals on industrial farms cannot feed themselves. Since they need to be fed, farmers need to get food for them. And once they get fed, they make waste. These simple points about industrial animal agriculture underlie most of their environmental effects.

The food that is grown for these animals—often called *feed* when it is fed to them rather than to humans—is typically derived from industrial plant agriculture and often derived from corn or soy that is grown using the synthetic fertilizers, pesticides, and so on that are crucial to contemporary industrial plant agriculture. Their manufacture and distribution require fossil fuels. Feeding these crops to animals (which are then eaten by humans) uses many times as much food as would be required if humans ate these crops directly. As the number of animals on these farms rises, so too does the amount of food that needs growing. This leads to forest and other lands being turned into farmland, which leads to loss of habitat for wildlife and loss of biodiversity. When forests are clear-cut so the land can be used for agriculture, this is a loss of carbon sinks that remove greenhouse gases (GHGs) from the atmosphere, and the replacement of them with sources of GHGs, since agricultural fields are net emitters.

That is what goes into animals on industrial farms. Another environmental problem is what comes out. Animal feces are a valuable resource in the right quantity because they can be used as fertilizer. Yet too much waste is produced to be useful fertilizer. It collects in “lagoons,” where it threatens to overrun or to leech into water. It gets sprayed on fields where it runs off and becomes a pollutant that renders water undrinkable, unswimmable, and, for aquatic animals, uninhabitable. In too concentrated a form, it renders soil unusable. And animal feces produce GHGs, just like animals’ burps and farts do. It produces stench and respiratory illness for those nearby.

People who will live in the future will deal with environmental problems that are indirect results of industrial farming, traceable in part to the quantities of GHGs produced by industrially farmed animals and to the clear-cutting that is done to grow food for factory-farmed animals. When GHGs from crops that are grown to feed animals are taken into account, and also the associated deforestation in some areas associated with grazing and cultivating this feed, most experts estimate that around 10% to 15% of all global GHG emissions are the result of animal agriculture.¹² By comparison, all of the

¹² For the high end of this range, see P. J. Gerber, H. Steinfeld, B. Henderson, A. Mottet, C. Opio, J. Dijkman, A. Falcucci, and G. Tempio, “Tackling Climate Change through Livestock—A Global Assessment of Emissions and Mitigation Opportunities,” UN FAO, 2013 (hereinafter FAO 2013); note that this study is by many of the same authors as and supersedes the slightly higher earlier estimates of H. Steinfeld, P. Gerber, T. Wassenaar, V. Castel, M. Rosales, and C. de Haan, “Livestock’s Long Shadow,” UN FAO, 2006; for the low end, see USA Environmental Protection Agency, “Non-CO₂

world's commercial airline emissions account for only about 2% of global GHG emissions, and all of the world's road transport emissions (including, but not limited to, automobile emissions) account for about 10%.¹³ So, globally, consuming animal products is a larger contributor to climate change than even driving automobiles.

Industrial animal agriculture also has negative effects on present people, some of which are immediately perceptible and other of which are not. People who live near industrial animal farms suffer from stench and sickness from contaminated water and from gases and parasites. Workers on industrial farms suffer high rates of work-related injuries.

People who live farther away might deal with contamination from seepage due to farm waste. People might deal with contamination due to excess waste being spread on fields and then draining off into the water supply. They might deal with contaminated meat.

People who live farther away might deal, too, with farm-bred viruses and antibiotic-resistant bacteria. Industrial animal farms are, in various ways, good breeding grounds for viruses and bacteria. The stress on the animals weakens their immune system. Their proximity to each other makes passage of viruses easy. The antibiotics they take wipe out some bacteria but, in doing so, clear the field for the "fittest" bacteria.

Most obviously, industrial animal agriculture has effects on animals and raises questions about the ethics of raising animals for food, of hurting them for food, and of killing them very young for food. Yet those questions are also raised, to some extent, by more humane, less industrial methods of farming. In the ideal, these methods of farming involve raising domestic animals (mostly) outdoors in ways that take advantage of their natural tendencies and make them well-off. So for pigs it might involve giving the animals plenty of room outdoors to roam, places to build nests, areas in which to forage, and so on. It might also involve giving them toys to play with and man-made piles of things in which to forage, neither of which is at all natural but both of which take advantage of pigs' natural proclivities.

Is it permissible to raise and kill living things to eat them? Moral vegans typically think so: it is permissible to kill carrots to eat them. Some think it is permissible to kill oysters. But not cattle. It is wrong to kill cattle. So, on their view, that a thing is alive

Global Inventory: Appendix," 2012 (hereinafter EPA 2012). By adding the same proportion of indirect to direct emissions from FAO 2013 to the estimates of direct emissions from animal agriculture that are the focus of EPA 2012, one arrives at approximately 10% of the global GHG emissions. Compare also Intergovernmental Panel on Climate Change (IPCC 2010), WG3 AR5, ch. 11, where the relevant discussion is based on the same sort of estimates as EPA 2012, and compare the claim that "the livestock sector may be responsible for 8–18% of GHGs, a significant share considering their projected growth," in Mario Herrero and Philip Thornton, "Livestock and Global Change: Emerging Issues for Sustainable Food Systems," *Proceedings of the National Academy of Sciences* 110 (2013): 20878–20881; see also Mario Herrero et al., "Biomass Use, Production, Feed Efficiencies, and Greenhouse Gas Emissions from Global Livestock Systems," *Proceedings of the National Academy of Sciences* 110 (2013): 20888–20893.

¹³ IPCC, WG3 AR5, ch. 8, p. 606, where domestic and international aviation are reported to be a little less than 1 GT CO₂eq and road transport emissions 5 GT CO₂eq, out of total global emissions of 49 GT CO₂eq. The bulk of the rest of global GHG emissions are from power plants and industrial sources. (For global totals, see IPCC, WG3 AR5, Technical Summary, p. 42.)

does not make it morally wrong to kill it. What does? A certain sort of mentality. Plants, they think, lack it. Oysters too. Cattle, by contrast, have it. It is because of this mental life that it is not only morally objectionable to kill them but also to hurt them. In “Concerning Cattle: Behavioral and Neuroscientific Evidence for Pain, Desire, and Self-Consciousness,” Gary Comstock surveys the extant psychological literature on the mental lives of cattle, arguing that while they lack self-consciousness, they are sentient and have desires, including desires for the (near) future. Because of this package of cognitive capacities, he argues, it is wrong to deprive them of life (and, derivatively, to consume their dead bodies).

Charles List, by contrast, argues in “The New Hunter and Local Food,” that killing and eating large mammals is permissible and, in particular, hunting and consuming hunted animals is. He argues for this on environmental grounds but also on the basis of locavore considerations and anti-industrial agricultural considerations, some of which are described in Noll and Werkheiser’s essay. He argues, too, for the importance of producing meat oneself and for the moral importance of gratitude and respect toward animals.

List’s essay has clear applications to the case of fishing, one focus of Eliot Michaelson and Andrew Reisner’s “Ethics for Fish.” Like Comstock’s, the essay is partly about extant psychological evidence about the mental lives of animals—in Comstock’s essay cattle; in Michaelson and Reisner’s fish—and partly about ethical conclusions that that evidence supports. It considers both the permissibility of large-scale fishing that makes possible Fishwiches and elementary school cafeteria fish sticks and also small-scale subsistence fishing, the sort that List’s arguments can be extended to support. Whereas some think there are plain ethical dissimilarities between, say, fish and cattle that render killing the latter ethically problematic but killing the former unproblematic, Michaelson and Reisner think the two stand or fall together.

Part III: Consumption

Although the essays in Part II have some discussion of consumption, they are primarily about the ethics of food production, especially whether it is permissible to treat animals in various ways to get food from them and whether it is permissible to kill animals for food. Part III, “Consumption,” is primarily about whether it is permissible to consume various products (and, in one case, whether it is permissible, instead, to waste them).

Of course, these issues about production and consumption might be very closely connected. Indeed, it might seem that consumer ethics is straightforward and does not raise any difficult issues, and that the correct theory of consumer ethics is easy to identify: namely, that *if something is produced in a way that is wrong, then it is always wrong to be a consumer of it*. Call this the “Simple Principle” about consumer ethics. If the Simple Principle is true, then anytime some product is wrongfully produced, it immediately follows that it is wrong to be a consumer of it. If sweatshop labor is wrong, it is wrong to wear sweatshop-produced clothes. If cosmetics are made by wrongfully hurting

animals, it is wrong to buy them. If it is wrong to kill animals for food, it is wrong to eat their dead bodies.

Against this, someone who proposes that there is nothing wrong with watching NCAA sports on television, even though NCAA athletes are exploited in a way that makes it the case that the product being consumed—namely, NCAA sports on television—is wrongfully produced. Similarly, such a person might claim that there is nothing wrong with using electricity to watch a movie in one's home even if it is produced by a coal power plant and even though coal-generated electricity is produced in a way that is wrong because it generates a lot of pollutants as well as GHGs that do serious harm to people when better ways of producing electricity are available. Finally, such a person might expect us to agree that, at the very least, a dumpster diver who eats factory-farmed meat from the garbage has done nothing wrong, even if we think that factory-farmed meat is wrongfully produced.

These seem like counterexamples to the Simple Principle. There are other putative problems with it. Consider the *inefficacy objection* to it, an objection discussed in this section by Andrew Chignell, Bob Fischer, Tristram McPherson, and Julia Nefsky. The inefficacy objection is, roughly, that even if it is true that a large number of additional consumers of an objectionable product would make the world worse, nonetheless it makes no difference whether there is one more or one less single individual consumer of such a product because the addition or deletion of a single consumer would not make any difference to the quantity produced in the sort of large marketplaces that are the norm in the developed world. For example, if you buy a pork chop from a store every day, this will probably make no difference to how much pork the store orders, and thus will make no difference to how much pork the wholesaler that supplies the store orders, and so on—and thus will ultimately make no difference to how many pigs are raised for meat. If so, then it is permissible to consume such things even if they are wrongly produced. If so, the Simple Principle is false. The question is: What to replace it with?

In “The Ethical Basis for Veganism,” Tristram McPherson argues the case for veganism, first arguing that it is wrong to raise and kill animals for food and then arguing from that to the conclusion that it is wrong to consume animal products because doing so is variously, objectionably related to the wrongness of producing food. Yet McPherson's veganism is “modest,” allowing for the consumption of bivalves, of roadkill, and of eggs that are produced under certain conditions (but not the conditions that produce eggs for grocery stores).

Bob Fischer's “Arguments for Consuming Animal Products” goes over arguments for more catholic eating habits, providing some support for the consumption of bivalves and roadkill but also bugs, in vitro meat, meat that will otherwise go to waste, and also animals that have been raised for food but given good (and long-ish) lives.

These essays partly address the difficult issue of connecting the wrongness of the production of certain products to the wrongness of consumption of those products. It is not, in general, true that it is wrong to benefit from wrongdoing. Perhaps it is

wrong to “support” wrongdoing? But in what way is giving \$5 to McDonald’s for a Happy Meal supporting McDonald’s? Five dollars is not even a rounding error in their books. And if you do not buy that Happy Meal, the next person in line will. In “Consumer Choice and Collective Impact,” Julia Nefsky notes that of course it is true that if everyone stopped buying some wrongfully produced product, the product would stop being produced, but it is far from clear what that shows about whether an individual consumer should stop buying that product. It is even less clear what to do when the consumer knows that if she does not buy that product, someone else will. May she buy? If not, why not? Nefsky surveys a range of answers to these questions.

In “Religious Dietary Practices and Secular Food Ethics; or, How to Hope That Your Food Choices Make a Difference Even When You Believe That They Don’t,” Andrew Chignell motivates what he calls a “broadly religious way of thinking” about food choices that helps to motivate people in the face of what seems like individual inefficacy. Dietary restrictions—Muslims and Jews are forbidden pork, Catholics are forbidden meat on Fridays, some Buddhist monks are required to eat all and only what is given to them—constitute an important part of religions. And while motivations vary, an important thread is that the effects of adhering to these restrictions are not limited to what we perceive and are valuable even in the absence of effects on anyone other than the eater. Confronted with one’s apparent inefficacy to change the food system, someone—religious or not—might “seriously believe, or at least tenaciously hope, that the significance of her individual food choices goes well beyond what is immediately observed or empirically measurable” and because of this persist in the face of real or apparent inefficacy.

Worries about inefficacy and the importance of collective action arise not only with regard to consumption of food but with its non-consumption: food left on the vine, food left to rot in stockpiles or thrown in a dumpster, food we do not eat and throw away. Your parent tells you not to waste food because somewhere people are starving. Your personal food waste, your parent thinks, is a moral concern; you should eat up. In “The Clean Plate Club? Food Waste and Individual Responsibility,” Jaclyn Hatala Matthes and Erich Hatala Matthes question whether an emphasis on individual action is appropriate, specifically in the context of food waste. In the United States, 40% of the food that is grown or produced is wasted—for example, it is left in the fields because it looks funny, it spoils in transport, or it is thrown out by processors, retailers, or consumers, much of it ending up as methane-producing waste in landfills. Waste in the food system extends beyond the waste of food, including also the inefficient use of water and other resources in agriculture. After describing the nature and scope of the waste problem, Matthes and Matthes argue that food waste should be seen as a political and institutional problem—and thus that “discharging our moral duty with respect to reducing food waste will be largely a matter of political advocacy and activism rather than a matter of making substantial changes to our individual food behaviors.”

Part IV: Food Justice and Social Justice

Part IV, “Food Justice and Social Justice,” concerns a set of issues related to justice—including racial, social, and economic justice—in the food system. Just as we might distinguish the academic study of food ethics from the movement to make the food system more ethical, we might distinguish the food justice movement from the academic study of food justice. The *food justice movement* is a social justice movement that aims to transform the food system by addressing a range of problems, including:

- Low wages and poor working conditions for agricultural workers, fast food workers, and other food service workers
- Hunger, malnutrition, and food insecurity (not being able to reliably afford enough food)
- Inadequate access to high-quality food, which includes issues like the higher price of many healthier foods and the existence of food deserts, areas where a significant percentage of people have low access to healthier food because they live far from a grocery store or another source of healthy food and do not have access to a car
- Racism, classism, sexism, and exclusionary practices in the food system and in other food movements
- Lack of equal participation in decision-making about food
- Indigenous peoples losing access to foods that were traditionally central to their identity, culture, and economy (what are called first foods)
- The environmental unsustainability of many contemporary forms of industrial agriculture

Different food justice organizations may understand food justice somewhat differently, and have different priorities with regard to it. But they typically reflect an understanding of food justice as requiring more equitable access to resources and more decision-making power for communities, with an explicit focus on racial equality. This is how some proponents describe food justice:

A socially just food system is one in which power and material resources are shared equitably so that people and communities can meet their needs, and live with security and dignity, now and into the future.¹⁴

Food justice is the right of communities everywhere to produce, process, distribute, access, and eat good food regardless of race, class, gender, ethnicity, citizenship, ability, religion, or community.¹⁵

¹⁴ Patricia Allen, “Realizing Justice in Local Food Systems,” *Cambridge Journal of Regions, Economy and Society* 3 (2010): 295–308, 297.

¹⁵ Institute for Agriculture and Trade Policy, “Draft Principles of Food Justice,” <http://www.iatp.org/documents/draft-principles-of-food-justice#sthash.Q4XHqUQm.dpuf>.

Food Justice is communities exercising their right to grow, sell, and eat healthy food. Healthy food is fresh, nutritious, affordable, culturally-appropriate, and grown locally with care for the well-being of the land, workers, and animals. People practicing food justice leads to a strong local food system, self-reliant communities, and a healthy environment.¹⁶

Philosophers typically understand justice as, most basically, about fair relations between people and about people getting what they are owed. It is about fair relations between existing people but also about fair relations between existing people and future people, and future people getting what they are owed, which is known as intergenerational justice. Some theorists claim that animals fall under the purview of justice, and so justice is also about fair relations between people and animals, and animals getting what they are owed. Some theorists claim justice applies only within a society; others claim that justice can cross social and national borders.

Justice requires, at a minimum, that people have basic liberties and political rights. It requires, too, distributive justice, which is concerned with the fair distribution throughout society of important things. Theorists disagree about what must be distributed fairly: goods and services (such as income and health care), well-being, opportunities (such as educational opportunities), capabilities, or something else? Theorists also disagree about what counts as a just or fair distribution. They disagree about which laws and institutions—for example, educational policies or tax policies or food assistance policies—will achieve this distribution. However, it is not only the actions of governments, the distribution of goods, or the structure of public institutions that can be unjust. Social attitudes, social norms, and social practices can also constrain people's options and life chances in ways that seem unfair, and thus seem like instances of injustice. Thus, some theorists argue that justice requires, in addition to a fair distribution of important goods, opportunities, and so on, equal social standing or equal social status of other sorts.

Now return to the list of problems identified by the food justice movement. We can map this list onto forms of injustice identified by philosophers. Hunger and malnutrition, food insecurity, lack of access to healthy food in food deserts, and the high cost of healthier foods are all distributive justice issues—that is, issues of fair distribution throughout society of important things. Food deserts are also seen as a racial justice issue because they are caused in part by housing policies that are racist and are unjust for that reason. Low wages and poor working conditions for workers raise concerns of exploitation as well as being a distributive justice issue. Racism in the food system (e.g., discrimination against African Americans farmers by the US Department of Agriculture) is an issue of procedural justice, an issue of fair procedures for making decisions, as well as an instance of what Iris Marion Young holds is the injustice of *marginalization*, in which some groups are cut off from work opportunities.¹⁷ The environmental unsustainability

¹⁶ Just Food, “What Is Food Justice?” <http://justfood.org/advocacy/what-is-food-justice>.

¹⁷ Iris Marion Young, *Justice and the Politics of Difference* (Princeton, NJ: Princeton University Press, 2011).

of industrial agriculture is an issue of intergenerational justice—future generations are given less than their share of certain environmental goods. Some critics of the alternative food movement say that it is exclusionary, reflecting the experience and values of middle-class white people and not reflecting the perspectives of low-income people and people of color. The criticism, in other words, is that the alternative food movement is characterized by a form of cultural imperialism, in which a dominant group establishes its culture as the norm.

There is an additional form of justice at play in the food justice movement, as Kyle Powys Whyte explains in his contribution to this volume, “Food Sovereignty, Justice, and Indigenous Peoples: An Essay on Settler Colonialism and Collective Continuance.” Food justice arguably also requires that groups have those experiences and social relations involving food that are central to their way of life, free from certain kinds of interference by others. In other words, food justice requires collective self-determination with regards to food and the food-related aspects of a way of life—often called *food sovereignty*. The underlying ethical idea is that justice requires collective self-determination.

Food sovereignty raises a number of interesting and deep questions. What moral reasons do we have not to interfere with groups’ collective relations? Are there moral reasons not to interfere with groups’ collective relations in addition to our moral reasons not to harm individuals, or violate their autonomy, or interfere with their self-determination? What kinds of interference with collective food relations are morally acceptable and consistent with justice?

The essays in Part IV of this book concern issues that fall under the broad heading of food justice and social justice.

Lee A. McBride III’s essay “Racial Imperialism and Food Traditions” begins by noting that “one topic that is seldom broached in food ethics is race.” Part of the explanation is disagreement about what whether race is a useful thing to talk about at all or, instead, is a “harmful fiction.” And then there is disagreement about whether race is a useful thing to talk about with regard to food ethics in particular. Are racial categories not necessary to get a handle on ethical issues related to food? Or are racial categories necessary in order to articulate certain ethical concerns, for example, ethical concerns with the cultural appropriation of foodways by outgroups?

McBride argues that we should adopt Alain Locke’s account of race. “Race, on this account, names inherited or preferred traits and values passed from generation to generation; it operates as tradition. Cultivated and maintained styles, techniques, and cultural products are the characteristic features of racial groupings.”¹⁸ McBride argues that this view allows us to recognize cultural contributions to cultural products, for example, the contributions of South Asians to curries and the contributions of black Americans to rock and roll; these cultural contributions have sometimes been discredited by socially dominant groups. At the same time, Locke’s account of race does not require us

¹⁸ Alain Locke, *The Philosophy of Alain Locke*, ed. Leonard Harris (Philadelphia: Temple University Press, 1989).

to advocate “proprietary ownership of cultural products.” Indeed, McBride argues that cultural products typically result from cultural exchange, and the exchanges that have created current foodways are complex. McBride argues furthermore that “vested interest in the ownership of cultural goods lies at the heart of racial imperialism” and thus should be rejected.

In his essay, Kyle Powys Whyte outlines a theory of indigenous food systems that describes the type of value food has in relation to the concept of indigenous *collective continuance*. His essay first articulates the nature of the relationships that make up collective continuance, focusing on trustworthiness and redundancy in particular. He then argues that US settler colonialism can be seen as a form of injustice that directly undermines these relationships that make up collective continuance. According to Whyte, an “injustice occurs, under settler colonial domination, when at least one society, the settler society, interferes with the qualities of relationships constitutive of collective continuance, which imposes social and environmental changes on indigenous peoples in a way that is nonconsensual and at a rate so rapid that the indigenous communities suffer harms that would have been preventable before settlement.” This kind of injustice can furthermore be understood as a violation of food sovereignty; Whyte suggests that one dimension of food sovereignty, as some indigenous people understand food sovereignty, includes maintaining these food-related aspects of collective continuance, free from domination by other groups.

In his essay “Food, Fairness, and Global Markets,” Madison Powers argues that the organization of global agricultural markets is unfair in multiple ways. The global food supply needs to increase in coming decades in order to feed a rapidly growing world population, yet there is fundamental disagreement about how to increase agricultural output while satisfying norms of fairness. “Market fundamentalists” support pro-market, pro-globalization approaches, seeing them as both the most efficient option and capable of being fair. Critics, including Powers, argue that markets can fall short, failing to achieve efficiency or failing to satisfy norms of fairness. Powers argues, in particular, against trade subsidies and protectionist restrictions, contract agriculture, large-scale farmland acquisition, and promoting shifts in agricultural production from crops intended for local consumption to commodities intended for export.

The perception of unfairness in global agricultural markets has helped to produce some of the most visible food activism. Yet other complaints have contributed, too: complaints about racism or imperialism, complaints about a lack of autonomy, complaints about unjust distribution of food, and so on. Indeed, as Jeff Sebo notes in “Multi-Issue Food Activism,” food activism not only responds to a variety of food-ethical complaints, in particular, but to ethical complaints more generally. The movement comprises small bore activists (people looking for a few extra hours for their farmers’ market) and large bore activists (people working to abolish factory farming). It comprises people narrowly focused on, say, chickens and people focused on dismantling neoliberalism. Sebo argues in favor of multi-issue activism and provides some guidance in how to get it done.

Part V: Ethics and Politics of Food Policy

Part V, “Ethics and Politics of Food Policy,” includes some further discussion of two topics that are taken up by food justice advocates: food and autonomy and the treatment of food workers. It discusses some ethical and legal issues with specific kinds of food policies, including healthy eating policies, food labeling, and agricultural guest worker programs. The first essay in this part, “Public Justification and the Politics of Agriculture” by Dan C. Shahar, discusses the meta issue of how controversial policies—policies about which there is deep disagreement and ethical controversy—can be acceptable to citizens, even though many citizens object to them. Shahar discusses disagreement about industrialized agriculture—seen by proponents as necessary to feed the world and seen by opponents as environmentally disastrous, unjust, and objectionable in other ways. Shahar asks whether we can expect agricultural policies to be acceptable to citizens, and acceptable in what way, given that any conceivable set of policies will likely be seen as deeply problematic by some citizens. He reaches the sobering conclusion that we should not expect any set of policies and rules to earn wholehearted support or even to be embraced as morally authoritative by all. Perhaps the best we can hope for is a Hobbesian form of public justification, in which each side accepts policies as “justified”—in the sense of being willing to acquiesce to these policies—because they recognize these policies as better than nothing, even if they also find the policies abhorrent.

In “Paternalism, Food, and Personal Freedom,” Sarah Conly argues in favor of (some) coercive policies that promote healthy eating, for example, policies limiting the portion size of junk foods. Insofar as these policies are meant to make individuals eat more healthfully in order to make those individuals better off, they are subject to ethical objections to government paternalism, for example, that these policies fail to respect individual autonomy, that they are demeaning, or that they will fail to make individuals better off because individuals are better placed than the government to know and to promote their own good (an assumption that behavioral economics has called into question, with evidence that humans have bounded rationality and do not reliably make welfare-enhancing choices).¹⁹ Conly argues for policies that are paternalistic and coercive by arguing that they are relevantly similar to food safety measures that we generally accept, such as inspections for salmonella. “In each case government tries to protect people from choices that do not advance their ends,” Conly argues.

The government is also coercive about food labeling. As Seana Valentine Shiffrin discusses in “Deceptive Advertising and Taking Responsibility for Others,” in California, it is illegal for Gerber baby food to advertise a product as being made with “real fruit juices

¹⁹ John Stuart Mill, *On Liberty* (Mineola, NY: Dover Publications, 2002); Gerald Dworkin, “Paternalism,” *Monist* 56 (1972): 64–84; Richard H. Thaler and Cass Sunstein, *Nudge: Improving Decisions about Health, Wealth, and Happiness* (New Haven, CT: Yale University Press, 2008); Cass R. Sunstein, *Why Nudge?: The Politics of Libertarian Paternalism* (New Haven, CT: Yale University Press, 2014), ch. 3; Sarah Conly, *Against Autonomy: Justifying Coercive Paternalism* (Cambridge: Cambridge University Press, 2013), ch. 1.

and other all natural ingredients” even though that product is made with real fruit juices and other all natural ingredients. The advertising is held to be deceptive—and Gerber legally liable for that deception—since people naturally but fallaciously infer that all the baby food’s ingredients are all-natural. At first blush, this is puzzling: How can Gerber be responsible for deception when the false belief comes from a fallacious inference by consumers? Isn’t it objectionably paternalistic toward consumers to hold Gerber so responsible? Or inconsistent with free speech law? Shiffrin argues that food advertisers, like advertisers generally, have a duty of care toward consumers such that they may not court “misunderstanding—even when the listener bears intellectual fault for the error.” This picture is undergirded by the idea that it is part of the producer’s job to free up consumers from figuring out various things about the food they buy. Far from being paternalistic, holding Gerber liable enhances the freedom of consumers. This suggests some general ideas about deception and liability as well as some particular ideas about how to label food.

Part V finishes with two essays on food producers, in particular, food workers.

In “Food Labor Ethics,” Tyler Doggett and Seth M. Holmes survey some of the ethical issues that come up in food work. They use agricultural labor on large farms in the western United States as an entry into issues of coercion and exploitation, immigration, racism and classism, and the suffering that goes into providing cheap produce year-round.

Of course, lots of jobs are bad in all sorts of ways. Food work, in particular, has long been bad in all sorts of ways. Its special, contemporary, American badness derives partly from American laws—and their (lack of) enforcement—and international trade agreements. One effect of these agreements has been a steady flow of labor moving to the United States from Central America. Social scientists estimate that between 25% and 70% of farm labor comes from illegal immigrants. Much of the hard labor Doggett and Holmes detail is undertaken by impoverished people from other countries.²⁰ Is this just? What if the labor is part of a program, a “guest worker” program, that is designed to provide short-term labor that is financially beneficial for farm owners and workers? Sabine Tsuruda’s “The Moral Burdens of Temporary Farm Work” explains the workings and moral defense of such programs and argues that they are fundamentally morally flawed, based on the idea that we can render the various bads of farm work permissible by providing enough money to the person upon whom those bads are inflicted. Crucially, this is not an argument against farm work per se but, rather, of farm work done on a temporary basis out of one’s country. Yet currently America and other countries depend on such labor.

²⁰ The low estimate comes from the Pew Research Center’s 2015 article by Jeffrey S. Passell and D’Vera Cohn, “Share of Unauthorized Immigrant Workers in Production, Construction Jobs Falls since 2007”: <http://www.pewhispanic.org/2015/03/26/share-of-unauthorized-immigrant-workers-in-production-construction-jobs-falls-since-2007/>.

The high end is mentioned—but not endorsed—in this 2014 Farmworker Justice article, “Selected Statistics on Farmworkers”: <https://www.farmworkerjustice.org/sites/default/files/NAWS%20data%20factsht%201-13-15FINAL.pdf>.

Tsuruda finishes with some ideas about how to improve this morally problematic state of affairs.

Part VI: Gender, Body Image, and “Healthy” Eating

Part VI, “Gender, Body Image, and ‘Healthy’ Eating,” includes four essays that take a critical eye to our public discourse about, and personal experiences of, dieting, healthy eating, and obesity prevention.

Feminist philosophers have argued for decades that dieting and eating disorders need to be seen as reflecting gender ideology and the pressure women face to be thin and fit, and need to be seen as forms of gender oppression that perpetuate inequality.²¹ In “Food Insecurity: Dieting as Ideology, as Oppression, and as Privilege,” Tracy Isaacs takes the feminist critique of dieting on board and offers a twist on it. Isaacs argues that dieting is a practice that reflects both oppression and privilege. Isaacs agrees with feminist arguments that “dieting and the pursuit of thinness constitute an oppressive ideology.” Yet those who diet are privileged in relation to the food insecure people around the world who lack access to sufficient food: from this perspective “restrictive dieting by choice in order to lose weight is an unimaginable luxury.”

Some recent philosophical work takes scholars’ critical approach to dieting and applies it to healthy eating and obesity prevention. According to this work, intense concern with eating healthfully and preventing obesity, and efforts at the same, need to be understood in their cultural context. They reflect moral attitudes and cultural norms about eating, gender, body shape, fat, and pleasure. In “Shame, Seduction, and Character in Food Messaging,” Rebecca Kukla argues that eating practices are seen as having characterological significance—how you eat reveals what kind of character you have. The perceived connection between eating and character is complex: fat people are framed as disgusting, irresponsible, and having poor character. Yet they are also seen as eating “unhealthily” and “unhealthy” eating is also seen as pleasurable, and rewarding, on analogy with sexual perversions: “just as we aesthetically and morally denigrate those who indulge in unusual, or frequent . . . gustatory pleasure, we inseparably and correspondingly valorize them as brave and impressive risk-takers unafraid of pleasure. Conversely, we stigmatize ‘prudes’ and ‘frigid’ people who are overly pure and self-controlled, at the same time as we hold them up as paragons of appropriate self-discipline.” This simultaneous denigration and valorization of “unhealthy” eating means that there is no “right” way to eat and “so there is no right kind of person to be in our culture, when it comes to food.”

Beth Dixon’s essay “Obesity and Responsibility” concerns another respect in which obesity and healthy eating are moralized: individuals are held responsible for being

²¹ Susie Orbach, *Fat Is a Feminist Issue: The Anti-Diet Guide to Permanent Weight Loss* (New York: Paddington Press, 1978); Sandra Lee Bartky, *Femininity and Domination: Studies in the Phenomenology of Oppression* (New York: Routledge, 1990); Susan Bordo, *Unbearable Weight: Feminism, Western Culture, and the Body* (Berkeley and Los Angeles: University of California Press, 1993).

obese. Scholars have described the public conversation about obesity as characterized by moral judgments about people with obesity, including attributions of responsibility to them. Scholars have responded by pointing out that obesity has social and environmental causes: obesity is a response to a food environment pervaded with unhealthy foods that are designed to be hard to resist and are aggressively marketed.²² And obesity results not just from our immediate food environments but is also influenced by poverty and social inequality, as well as technological and lifestyle change, which are buttressed by social policies. Given the environmental and social causes of obesity, the argument goes, individuals lack the kind of causal responsibility for obesity that would warrant holding them responsible for obesity—that is, morally blaming them or holding them liable for health care costs or other social costs associated with obesity. Dixon's essay is broadly sympathetic to this response, while adding some nuance to it. Dixon argues that we should reject the false dichotomy of attributing moral responsibility for being obese to all people with obesity, or attributing it to none. Dixon provides an account of situated moral agency and uses it to argue that some people with obesity are not morally responsible because factors interfere with their capacity to detect moral considerations in favor of healthy eating or because structural inequalities interfere with their capacity to act on these considerations.

Although she does not use the term, Christina van Dyke, too, considers the situated moral agency of people with orthorexia, the obsession with finding and sticking to an ideal diet. In "Eat Y'Self Fitter: Orthorexia, Health, and Gender," van Dyke argues that orthorexia is a real, surprisingly widespread phenomenon, that its appearance is partly due to features of food marketing that Isaacs, Kukla, and Shiffrin discuss in this book, partly due to contemporary ideas of health, but also partly due to the variety of foods available in large parts of the world. She argues it has something like a religious significance for people that suffer from it, promising a way to "transcend rather than to embrace the realities of embodiment . . . orthorexia is best understood as a manifestation of age-old anxieties about human finitude and mortality—anxieties which current dominant sociocultural forces prime us to experience and express in unhealthy attitudes toward healthy eating."

Part VII: Food and Social Identities, Cultural Practices, and Values

For the orthorexic, what is eaten has a deep personal significance. What we eat also has undeniable social significance. The personal, social, and moral significance of food is the topic of Part VII, "Food and Social Identities, Cultural Practices, and Values."

²² See Anne Barnhill, Katherine F. King, Nancy Kass, and Ruth Faden, "The Value of Unhealthy Eating and the Ethics of Healthy Eating Policies," *Kennedy Institute of Ethics Journal* 24, no. 3 (2014): 187–217. doi:10.1353/ken.2014.0021.

As Guptill et al. write, “the popular saying ‘You are what you eat’ is not just a nutritional adage.”²³ Specific food practices are linked to some personal identities and group identities. For example, as is discussed in Chignell’s essay in this book, religions prescribe food practices, including eating certain foods as part of rituals and on holidays, not eating certain foods, and periodically fasting. Guptill et al. give some further examples of how food practices are linked to identities:

If you eat Vegemite every day, you are probably Australian; if you nosh on grits and collard greens, chances are high that you are from the southern US; if you eat steak and lobster regularly, you are most likely middle or upper class; and, if you normally consume salad and other ‘lighter fare,’ you are probably a woman.²⁴

Because they are so strongly linked with group identity, food practices are an effective way to monitor group boundaries, identifying some people as insiders and others as outsiders, with both positive and negative effects. Participating together in food practices that are unique—food practices that are “ours” and not “theirs”—can bring groups of people closer together, giving them feelings of commonality and solidarity, making them feel connected to a shared history. But group-based food practices can also serve as a locus of hostility between groups.

Food practices are obviously linked to social identities. But what exactly is the relation between them? The opening essay of this part, “I Eat, Therefore I Am: Disgust and the Intersection of Food and Identity,” takes up this issue. Daniel Kelly and Nicolae Morar explain the relations that hold between food (and cuisine, eating, and dining) and social identities (which are unpacked in terms of social roles and social norms), giving an account informed by work in empirical moral psychology. Having given this general account, they emphasize that disgust is the emotion most predominant in food norms—making disgust an effective tool in attempts to change food norms. They raise ethical concerns with using disgust in this way, given evidence that disgust disrupts our ability to see the object of disgust as an agent—in other words, evidence that disgust is dehumanizing. Lastly, they consider the implications of their account for efforts to change what people eat—noting that “if you are what you eat, then attempts to change what and how you eat are, in effect, attempts to alter your identity, who you are.”

What other ethical issues are raised by the fact that food practices are linked to group identities? One set of issues concerns our duties to accommodate such food practices. Are there cases in which food practices that would otherwise be prohibited should be tolerated because of their centrality to group identities or their cultural significance? For example, should kosher and halal foods be provided in school lunch programs? As Ronald Sandler notes, “if there are not religiously appropriate foods [available, then people] may have to choose between eating and being faithful to their values/

²³ Amy E. Guptill, Denise A. Copelton, and Betsy Lucal, *Food & Society: Principles and Paradoxes* (Cambridge, UK: Polity, 2013), 18–19.

²⁴ Ibid.

traditions.”²⁵ So should school lunches include not only kosher and halal options but also vegan options? As another example, discussed by Paula Casal,²⁶ should practitioners of the religion Santeria be allowed to sacrifice animals in the way prescribed by their religion, even though that method of sacrifice would otherwise fall foul of animal cruelty laws, because the practice is central to their religious and cultural identities? These questions connect to the food sovereignty debate and group’s rights to collective self-determination. As Kyle Powys Whyte has argued, one demand of food justice is that groups have a right to exercise their collective food relations without interference from other groups, unless there is a morally weighty reason for the interference.²⁷

To some, the whole idea of morally weighty reasons to interfere with others’ eating practices will sound odd. “Is it delicious?” is, for most people, more important than “Is it okay to eat it?” For most, “Is it okay to eat it?” does not even sound moral—it sounds like a question about prudence or etiquette or aesthetics. In “Morality and Aesthetics of Food,” Shen-yi Liao and Aaron Meskin consider some questions squarely in aesthetics—Is food art? What is the role of expertise in discerning how delicious food is?—and some of the relations between food ethics and food aesthetics. Centrally, it argues for “food immoralism,” according to which a moral defect in food can explain an aesthetic virtue. In a way, food’s bad character can be part of what makes it delicious.

Kate Nolfi’s “Food Choices and Moral Character” concerns the character of eaters rather than the eaten. So much of our eating is unthinking, and, so far as we think about what we eat, that thought is typically not careful, thorough deliberation about whether we may eat this or that. Such unthinking or not-carefully-thought-out action, Nolfi argues, is especially illuminating of moral character.

In “The Etiquette of Eating,” Karen Stohr discusses etiquette, in particular the etiquette conventions that govern eating together. These conventions serve an important moral purpose, she argues: they form the essential structure of eating together, setting the terms on which guests interact, and thus facilitating interactions that can be morally valuable. For example, Kant thought that eating together, when conducted properly, is an opportunity to improve one’s understanding through rational conversation and to create social bonds through mutual enjoyment. But for shared meals to serve these purposes (rather than to undermine them) requires participants to abide by certain rules, such as avoiding challenging topics at the beginning of the meal while people are still hungry (and cantankerous). In short, etiquette extends far beyond rules about which fork to use for what; and at its best, etiquette is not a way to reinforce social distinctions and hierarchies. Rather, when executed properly etiquette is a part of morality because

²⁵ Ronald Sandler, *Food Ethics: The Basics* (New York: Routledge, 2015), 169–170. For further discussion, see the chapter “Food and Culture,” in Sandler.

²⁶ Paula Casal, “Is Multiculturalism Bad for Animals?” *Journal of Political Philosophy* 11, no. 1 (2003): 1–22.

²⁷ Kyle Powys Whyte, “Food Justice and Collective Food Relations,” in *Food, Ethics, and Society: An Introductory Text with Readings*, ed. Anne Barnhill, Mark Budolfson, and Tyler Doggett (New York: Oxford University Press, 2016), 122–134.

it facilitates social interactions that improve us morally and create morally valuable relationships.

So Stohr argues that what strikes some as fussiness or preciousness of etiquette is actually valuable. Susan Wolf in “The Ethics of Being a Foodie” argues for something similar with regard to another activity sometimes regarded as fussy or precious, being a foodie. Like an etiquette maven, a foodie might seem morally suspect. Wolf explains why and then defends foodie-ism from the charge, concluding that “foodies . . . have nothing to be ashamed of. Not only is there nothing morally wrong with being a foodie, being a foodie has the potential to influence and contribute to one’s life in particularly rich and ethically rewarding ways” as one’s aesthetic passion for food naturally leads to various ethical concerns.

Part VIII: History of Philosophy and Food Ethics

The book ends—untraditionally—with a discussion of some of the history of food ethics. Katja Maria Vogt discusses ancient Greek thought about eating in “Who You Are Is What You Eat: Food in Ancient Thought.” Like Susan Wolf, ancient ethicists pondered the role of food in the good life. Like Shen-yi Liao and Aaron Meskin, they wondered about the relations between aesthetic and ethical reasons. Like some contemporary philosophers of language, they wondered about whether differences in taste showed something interesting about relativism. Yet Greek ethics, as Vogt demonstrates, includes a range of questions about eating and its role in our everyday lives, questions contemporary ethicists may not even recognize as ethical: what hunger is, why we hunger, and how and why to control the desire to eat that hunger produces. Vogt proposes that these questions should be included in food ethics once again, “thus starting out, like ancient thought on eating, from ordinary experiences.”

Whereas there has been some work on ancient Greek food ethics, there has, as Henrik Lagerlund notes in “Food Ethics in the Middle Ages,” been nearly no work done on medieval food ethics. In Tristram Stuart’s massive survey of modern vegetarianism, medieval influences appear four times, significantly less often than pagan influences.²⁸ In Daniel Dombrowski’s condensed summary of the history of vegetarianism, medieval philosophy merits a paragraph, a much briefer appearance than modern work or the ancient work to which it was deeply indebted.²⁹ Both medieval and ancient Greek food ethics include work on the ethics of raising and killing animals for food and on the ethics of consumption, and some of the medieval arguments there clearly owe a debt to the Greeks. There was work, too, on the Aristotelian issue of whether and why to control appetites. Yet the thinkers Lagerlund focuses on depart from the ancient Greeks in filtering their ethical concerns through medieval Christianity. Issues like fasting and

²⁸ Tristram Stuart, *The Bloodless Revolution* (New York: Norton, 2006).

²⁹ Daniel Dombrowski, “A Very Brief History of Philosophical Vegetarianism and Its Influence,” in *Food for Thought*, ed. Steve Sapontzis (Amherst, NY: Prometheus Press, 2004).

gluttony that are not widely discussed in contemporary food ethics—although fasting is a central topic in Andrew Chignell's contribution to this book—were of central concern. And issues that remain discussed today—the raising and killing of animals—were approached differently, making much of the idea that God gave people dominion over the animals, an idea that shows up in contemporary discussions³⁰ but is somewhat uncommon.

As John Grey and Aaron Garrett discuss in “You Are What You Eat, but Should You Eat What You Are? Modern Philosophical Dietetics,” modern food ethics will seem on the whole more familiar to contemporary eyes in both form and content without seeming entirely familiar. Topics alien to contemporary food ethics showed up, too, most strikingly whether there is a moral requirement to eat well in order to do good work or a moral requirement to eat well to build a “moral republic.” Again, there is a concern with why we eat as a moral issue that is largely absent from contemporary discussions. But topics familiar to contemporary food ethics—the moral status of animals, the ethics of letting people starve, the justice of various distributions of food—surfaced too and were dealt with in ways that are sometimes strikingly familiar (Anne Conway's idea that we owe justice to animals) and other times strikingly odd (Conway's idea that eating releases the spirits of what we eat).

ACKNOWLEDGMENTS

Some of this introduction is based on our contributions to *Food, Ethics, and Society: An Introductory Text with Readings*, ed. Anne Barnhill, Mark Budolfson, and Tyler Doggett (New York: Oxford University Press, 2016).

BIBLIOGRAPHY

- Allen, Patricia. “Realizing Justice in Local Food Systems.” *Cambridge Journal of Regions, Economy and Society* 297 (2010): 295–308.
- Barnhill, Anne, Mark Budolfson, and Tyler Doggett, eds. *Food, Ethics, and Society: An Introductory Text with Readings*. Oxford University Press, 2016.
- Bartky, Sandra Lee. *Femininity and Domination: Studies in the Phenomenology of Oppression*. New York: Routledge, 1990.
- Böll Foundation. “The Meat Atlas.” 2014. <https://www.boell.de/en/2014/01/07/meat-atlas>.
- Bordo, Susan. *Unbearable Weight: Feminism, Western Culture, and the Body*. Berkeley and Los Angeles: University of California Press, 1993.
- Bowe, John. *Nobodies: Modern American Slave Labor and the Dark Side of the New Global Economy*. Reprint edition. New York: Random House Trade Paperbacks, 2008.

³⁰ Notably, Matthew C. Halteman, “Compassionate Eating as Care of Creation,” 2008, http://www.humanesociety.org/assets/pdfs/faith/compassionate_eating_halteman_book.pdf; and Matthew Scully, *Dominion* (London: St Martin's Press, 2002).

- Conly, Sarah. *Against Autonomy: Justifying Coercive Paternalism*. Cambridge: Cambridge University Press, 2013.
- . “Coercive Paternalism in Health Care: Against Freedom of Choice.” *Public Health Ethics* 6, no. 3 (2013): 241–245. doi:10.1093/phe/pht025.
- Curtin, Deane, and Lisa Heldke. *Cooking, Eating, Thinking*. Bloomington: Indiana University Press, 1992.
- Dombrowski, Daniel. “A Very Brief History of Philosophical Vegetarianism and Its Influence.” In *Food for Thought*, edited by Steve Sapontzis, 22–33. Amherst, NY: Prometheus Press, 2004.
- Dworkin, Gerald. “Paternalism.” *Monist* 56 (1972): 64–84.
- FAOSTAT. 2017. <http://www.fao.org/faostat/en/#data/QC>.
- Feinberg, Joel. *Harm to Self*. New York: Oxford University Press, 1986.
- Fraser, David. *Understanding Animal Welfare: The Science in Its Cultural Context*. Cambridge, MA: Wiley-Blackwell, 2008.
- Gaud, William. “The Green Revolution: Accomplishments and Apprehensions.” Speech to the Society for International Development. 1968. <http://www.agbioworld.org/biotech-info/topics/borlaug/borlaug-green.html>.
- Gerber, P. J., H. Steinfeld, B. Henderson, A. Mottet, C. Opio, J. Dijkman, A. Falcucci, and G. Tempio. “Tackling Climate Change through Livestock – A Global Assessment of Emissions and Mitigation Opportunities.” UN FAO, 2013. <http://www.fao.org/3/i3437e.pdf>.
- Guptill, Amy E., Denise A. Copelton, and Betsy Lucal. *Food & Society: Principles and Paradoxes*. Cambridge, UK: Polity, 2013.
- Halteman, Matthew C. “Compassionate Eating as Care of Creation.” 2008. http://www.humanesociety.org/assets/pdfs/faith/compassionate_eating_halteman_book.pdf.
- Herrero, Mario, and Philip Thornton. “Livestock and Global Change: Emerging Issues for Sustainable Food Systems.” *Proceedings of the National Academy of Sciences* 110 (2013): 20878–20881.
- Herrero, Mario, et al. “Biomass Use, Production, Feed Efficiencies, and Greenhouse Gas Emissions from Global Livestock Systems.” *Proceedings of the National Academy of Sciences* 110 (2013): 20888–20893.
- Intergovernmental Panel on Climate Change (IPCC). “Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.” Edited by O. Edenhofer, R. Pichs-Madruga, Y. Sokona, E. Farahani, S. Kadner, K. Seyboth, A. Adler, I. Baum, S. Brunner, P. Eickemeier, B. Kriemann, J. Savolainen, S. Schlömer, C. von Stechow, T. Zwickel, and J. C. Minx. Cambridge, UK and New York: Cambridge University Press, 2014.
- Kingsolver, Barbara, Camille Kingsolver, and Steven L. Hopp. *Animal, Vegetable, Miracle: A Year of Food Life*. New York: Harper, 2007.
- Korthals, Michiel. “The Birth of Philosophy and Contempt for Food.” *Gastronomica* 8 (2008): 62–69.
- Locke, Alain. *The Philosophy of Alain Locke*. Edited by Leonard Harris. Philadelphia: Temple University Press, 1989.
- Mephram, Ben, ed. *Food Ethics*. New York: Routledge, 1996.
- Mill, John Stuart. *On Liberty*. Mineola, NY: Dover Publications, 2002.
- Orbach, Susie. *Fat Is a Feminist Issue: The Anti-Diet Guide to Permanent Weight Loss*. New York: Paddington Press, 1978.
- Sandler, Ronald. *Food Ethics: The Basics*. New York: Routledge, 2015.
- Scully, Matthew. *Dominion*. London: St Martin’s Press, 2002.

- Singer, Peter. "Utilitarianism and Vegetarianism." In *Philosophy and Public Affairs* 9 (1980): 325–337.
- Steinfeld, H., P. Gerber, T. Wassenaar, V. Castel, M. Rosales, and C. de Haan. "Livestock's Long Shadow." UN FAO, 2006. <ftp://ftp.fao.org/docrep/fao/010/a0701e/a0701e00.pdf>.
- Stuart, Tristram. *The Bloodless Revolution*. New York: Norton, 2006.
- Sunstein, Cass R. *Why Nudge?: The Politics of Libertarian Paternalism*. New Haven, CT: Yale University Press, 2014.
- Telfer, Elizabeth. *Food for Thought*. New York: Routledge, 1996.
- Thaler, Richard H., and Cass Sunstein. *Nudge: Improving Decisions about Health, Wealth, and Happiness*. New Haven, CT: Yale University Press, 2008.
- Thompson, Paul B. "The Emergence of Food Ethics." *Food Ethics* 1 (2016): 61–74.
- . *The Ethics of Aid and Trade*. New York: Cambridge University Press, 1992.
- . *The Spirit of the Soil*. New York: Routledge, 1995.
- Trout, J. D. "Paternalism and Cognitive Bias." *Law and Philosophy* 24, no. 4 (July 2005): 393–434. doi:10.1007/s10982-004-8197-3.
- Union of Concerned Scientists. "Hidden Costs of Industrial Agriculture." 2017. http://www.ucsusa.org/food_and_agriculture/our-failing-food-system/industrial-agriculture/hidden-costs-of-industrial.html.
- USA Environmental Protection Agency. "Non-CO₂ Global Inventory: Appendix." 2012. <https://www.epa.gov/global-mitigation-non-co2-greenhouse-gases/non-co2-greenhouse-gases-international-emissions-and>
- USDA. World Agricultural Production Data. 2017. <http://usda.mannlib.cornell.edu/MannUsda/>.
- Whyte, Kyle Powys. "Food Justice and Collective Food Relations." In *Food, Ethics, and Society: An Introductory Text with Readings*, edited by Anne Barnhill, Mark Budolfson, and Tyler Doggett, 122–134. New York: Oxford University Press, 2016.
- Young, Iris Marion. *Justice and the Politics of Difference*. Princeton, NJ: Princeton University Press, 2011.
- Zwart, Hub. "A Short History of Food Ethics." *Journal of Agricultural and Environmental Ethics* 12 (2000): 113–126.

PART I

CONVENTIONAL
AGRICULTURE AND
ALTERNATIVES

CHAPTER 2

SUSTAINABLE AGRICULTURE, ENVIRONMENTAL PHILOSOPHY, AND THE ETHICS OF FOOD

CLARK WOLF

INTRODUCTION: EATING SUSTAINABLY

IF our food is delicious and nutritious, why should we care how it was made or where it came from? Why concern ourselves with the question whether our food was produced humanely or sustainably, as long as it keeps us healthy and satisfied? But many of us do care, and arguably we should care quite a lot. If our practices, institutions, or ways of life are unsustainable, then they cannot be perpetuated over time or continued on into the future. If we value our way of life, we may want to pass that value on to our children and to later generations. If we care about environmental protection and preservation, we have reason to avoid practices that are unsustainable because they cause progressive environmental damage. Beyond our parochial values, and our broader concern for the environment, there is another important moral reason to make our institutions sustainable: unsustainable practices, including food production practices, are unfair to our descendants (Wolf 2013), leaving them worse off than they might otherwise have been (Solow 1991; Fleurbaey 2015). It is unfair to organize our lives or societies in a way that would close off the possibility that future generations might live similarly good lives. If unsustainable practices deny to future generations resources that would otherwise have been available to them, it is worth asking whether we have wronged them, whether they will have a legitimate complaint against us, and whether we have violated their rights (Wolf 2012). If our practices deprive them of something, was it something they had a claim to possess?

The claim that <unsustainable behavior is unfair> is strongest when such behavior compromises resources people will need, and when the present benefits we gain from our

unsustainable activities are less pressing and urgent. If we fail to leave future generations living soils and oceans, a breathable atmosphere, and the ability to meet their basic needs, then it would seem, at the very least, that they have the right to ask what could have justified us in using up resources on which their lives depend. Did we have a pressing, morally significant purpose that could justify the fact that we did something that denied them the things they need? While needs are among the most essential human requirements, even claims based on less pressing requirements can support the argument that our present resource use might be unfair. Even if our unsustainable practices do not deny to future generations what they need, they still raise questions of equity: Are we taking for ourselves resources that should have been shared more broadly by a larger group of people over a longer period of time? Did we enrich ourselves by using up renewable resources we might have passed on to our resource-poor descendants? If we leave future generations financially secure, have we adequately compensated them for the loss of resources we have used up? Can we compensate them by developing new technologies and intellectual resources they would not have had but for our efforts? Did we burn up, for trivial purposes, resources that they might otherwise have put to better, crucial uses? While all of our practices may raise these questions of sustainability and intergenerational obligation, agricultural practices raise them with special urgency. Everyone needs to eat. While there are other urgent requirements—energy, for example—it is easier to imagine human life without energy infrastructure than to imagine life without food.

“Sustainable agriculture” refers to a social and political movement, a scientific discipline, and for some people, a way of life. As a *political and social movement*, sustainable agriculture is constituted by farmers, food activists, and rural-life activists who urge, among other things, that eating is both a moral and a political act. People who identify with this aspect of sustainable agriculture argue that our relationship with food expresses our values and involves engagement with the social and political institutions that shape the farms and industries that produce what we eat. As a *scientific discipline*, sustainable agriculture includes researchers in a variety of different fields from agronomy, biotechnology, and agricultural sciences, to sociology, rural studies, and economics. Researchers involved at this level study agricultural systems and communities, and evaluate agricultural production practices for their environmental impact and for their impact on producers and human communities. Some work to develop environmentally appropriate crops and cropping systems or study ways to minimize the negative impacts of agricultural production. Those who regard sustainable agriculture as a *way of life* are mostly farmers and producers who strive to realize an ideal of sustainability in their daily practice. Members of this last group are varied, including organic producers, private farmers who run community-supported agriculture (CSA) farms, and still others who seek to adopt methods of agricultural production that conform to their ideals.

Behind these different conceptions of sustainable agriculture there may be some underlying principles that adherents hold in common. It might be a useful task for a philosophical anthropologist to gather together the ideas of people who embrace these difference conceptions and to try to find a subset of ideas about agriculture that they all share. In one sense, the intersection of their beliefs about the subject might constitute a philosophy of sustainable agriculture. What this essay will undertake to do

here, however, is a little bit different. The next section briefly discusses the place of agriculture in contemporary philosophy. For the most part, agriculture has received less attention than other important social institutions, and philosophical treatments of agriculture have mostly been undertaken by philosophers who view themselves to be doing environmental ethics. Some philosophical treatments present agriculture and “nature” as essentially opposed forces, but the ideal of sustainability calls this view into question. The section on “Sustainability Myths? Two Worldviews of Agricultural Production” discusses the role of ideology in both conventional and sustainable agriculture. Ideologies are constituted by a complex of beliefs and values that inform the choices people make. This section argues that our agricultural practices are importantly shaped by ideals and values. Because of this, philosophical analysis has an important function to play, helping us to articulate these beliefs and values in order to subject them to critical evaluation. “The Concept of Sustainability” section more specifically addresses the concept of “sustainability” and various ways in which that concept has been used in political philosophy and economic theory. Moving from more general conceptions of sustainability, this section provides an interpretation of the common view that agricultural practices must be “economically, socially, and environmentally sustainable” if they are to count as “sustainable” in the broader sense. “Comparing the Sustainability of Alternative Agricultural Practices” examines three different practical issues that should be addressed in a philosophical treatment of sustainable agriculture. In particular, this section considers the sustainability of animal agriculture, the question of whether the use of biotech or genetically modified crops can count as sustainable, and the question of whether “eating locally” is an appropriate practice for consumers who want to consume a more sustainable diet. Finally, the last section briefly revisits the question of personal food consumption as an ethical and political activity.

AGRICULTURE AND THE ENVIRONMENT: NATURE VERSUS CULTURE?

Environmental philosophers have not, for the most part, focused much on agriculture. For a long period of time, work in environmental ethics seemed fixated on a paradigm of wildness as nature untouched and uninfluenced by human beings. As Paul Thompson (1995) documents, this has sometimes led to absurdities. In the abstract, it may be easy to sympathize with the view that human beings are separate from nature, but in practice this view is both false and pernicious. It is false because human beings evolved as a product of natural forces, and for a long period of human history human communities were well integrated with the natural systems in which they lived. It is pernicious because the ideal that we must return “nature” to its original untouched condition has sometimes led to policies that are unjust and environmentally inappropriate. The ideal of nature as separate from human communities led, in some instances, to policies that removed indigenous peoples from the land they and their communities had inhabited

for millennia. In other contexts, this ideal presents an inappropriate ideal for environmental management in a world where there are no longer any major biotic systems that have not been deeply changed by human influence.

Agriculture, however, may be a special case. Some critics see the advent of agriculture as the moment when our species left its natural environmental niche and started down a path to perdition (Diamond 1987). Others, including the great naturalist T. H. Huxley, have viewed agriculture as “artifice,” which he saw as essentially opposed to the forces of “nature.” Speaking of gardens, Huxley wrote:

It will be admitted that the garden is as much a work of art, or artifice, as anything that can be mentioned. The energy localized in certain human bodies, directed by similarly localized intellects, has produced a collection of other material bodies which could not be brought about in the state of nature. The same proposition is true of all the works of man’s hands, from a flint implement to a cathedral or a chronometer; and it is because it is true, that we call these things artificial, term them works of art, or artifice, by way of distinguishing them from the products of the cosmic process, working outside man, which we call natural, or works of nature. (Huxley 1894, 10–11)

Huxley viewed gardens and agriculture in general as “both useful and justifiable,” but others are less optimistic. A more recent writer, Lierre Keith, sees agriculture and nature as inexorably opposed forces. On her view, agriculture constitutes a genocidal war against “nature”:

The ‘nature of nature’ and the ‘nature of agriculture’ are completely at odds: one is a war against the other. You have to understand what agriculture is: you take a piece of land, you clear every living thing off it, even down to the bacteria, and you plant it to human use. It’s biotic cleansing. This lets the human population grow to gigantic proportions, because instead of sharing that land with millions of other creatures, you’re only growing humans on it. (Keith 2009a)

Keith’s view is extreme—surely not all agricultural practices fit this dire description. But is it entirely wrong? Modern industrial agriculture does clear away the native biodiversity and replaces it with monoculture. According to Keith, we need a revolution to overthrow the entire system, so that we can move back to a more sanguine relationship between human beings and the biotic systems on which we depend. We might reasonably doubt that it is necessary for agriculture to be “at war” with the natural world, rather than supposing that this is merely a contingent feature of agriculture as it is practiced in the modern industrialized world. Certainly many forms of agriculture are much less invasive than Keith’s description would imply. The possibility that agriculture might be, or might become sustainable would constitute a response to the view that agriculture is a war against the natural world.

Another important reservation involves the concept of “nature” itself. Some uses of this term, especially when “nature” is contrasted with “culture,” appear to exclude human beings and human society from the start. This can have practical consequences,

for example, when indigenous peoples are evicted from land their communities have relied on for centuries, following the creation of a wildlife preserve. In a world where few if any environmental systems have been untouched or unchanged by human influence, it is often difficult to separate the natural from the cultural. For example, if native peoples burned off the prairies in the central United States, should we judge that this makes them agricultural lands, or that it renders them a product of culture rather than nature? Should we consequently value human-impacted prairies differently from the way we value forest lands? Some writers urge that the concept of “nature” is so ambiguous or so deeply problematic that we should avoid using it carelessly, or perhaps abjure its use altogether (Mill [1874] 1998; Purdy 2015). For our purposes here, it is enough to note that “nature” is conceptually complex. Any effort to distinguish nature and culture (thereby implying that culture is unnatural) will be unavoidably controversial.

SUSTAINABILITY MYTHS? TWO WORLDVIEWS OF AGRICULTURAL PRODUCTION

Sustainable agriculture holds up an ideal that agricultural production might avoid environmental damage, or perhaps that agricultural production processes might work with environmental and biotic systems rather than against them. This ideal animates many of the people who pursue research on sustainable agriculture and those who seek to farm sustainably. When actions are informed by ideals, we might regard them as “ideological,” in a certain sense, but both conventional and sustainable agricultural ideals involve ideological commitments. To say that agricultural production systems are ideologically informed is to say that their structure reflects underlying ideas and values—the ideologies—of the people who create them. Like other ideologically informed social institutions, the structure of agricultural production systems may come to seem inevitable to those who act within them. “Sustainable agriculture” is often contrasted with “conventional agriculture.” In this case, “conventional” simply means agriculture the way most people in industrialized countries do it. Many farmers engaged in conventional agricultural production see the choices they make as the only reasonable or rational choices to make, under the circumstances in which they find themselves. It is worth considering the extent to which this perception is a function of ideology, and the extent to which it reflects an appropriate and objective grasp of the material circumstances of modern agricultural production. One goal of philosophical critique of agriculture—a goal of philosophical critique of any human institution or endeavor—must be to articulate and critically evaluate the ideologies that lead people to make the choices they make.

Contrasted with conventional agricultural production, the ideal of sustainable agriculture may seem to its advocates to be a revolutionary anti-ideological ideal. But revolutionary goals are also embedded in a rich nest of ideas and values. Just as a philosophical understanding of agriculture requires an understanding of the ideology of

conventional production, it equally requires a critical understanding of the values and ideas that inform the development of alternative and potentially sustainable modes of agricultural production.

Can we characterize the worldviews or ideologies of conventional agriculture or the various alternatives that are believed by their advocates to be sustainable? The plural and heterogeneous character of sustainable agriculture makes this difficult. As a field of study and practice, sustainable agriculture includes researchers working to develop perennial polyculture alternatives to annual cropping systems; it includes some organic producers; it includes small-scale producers running CSA businesses; it includes biodynamic farmers who are trying to enact the ideas of the German philosopher Rudolph Steiner; it includes farmers who are trying to develop cropping systems that mimic, both in form and biosystemic function, the environmental systems they replace; it includes researchers who are trying to develop large-scale cropping systems that reduce topsoil loss and increase soil health. Can there be any single ideology that ties together the members of this heterogeneous mix? Any attempt to express one will be selective and imperfect. What may bind them together, however, is that they are critics of conventional production, which they see as an unsustainable status quo. In each case, we may learn more about conventional and sustainable agricultures by considering what their advocates think about each other. The descriptions that follow are an attempt to characterize the views under consideration, after which we can use a more formal account of “sustainability” to evaluate them. These competing worldviews are not presented as truths to be passively accepted. Instead, they express ideologies available for critical evaluation.

An Ideological Worldview of Sustainable Agriculture?

Advocates of sustainable agriculture often urge that conventional modes of agricultural production are environmentally damaging. Conventional production involves the environmentally inappropriate use of heavy industrial equipment, genetically modified crops, liberal application of pesticides and herbicides, and monoculture cropping systems that ignore or (more commonly) eliminate any irregularities in the landscape that might reduce the systematic consistency of the agricultural outputs. Those outputs—conventional monoculture crops—are then sold and introduced into the market as industrial inputs. Most corn grown in contemporary fields is not food for human beings. Most soybeans are sold as animal feed. Conventional production methods involve enormous industrial equipment required for large-scale industrial monocultures, since these industrial crops are grown on enormous fields that may stretch for thousands of acres. Any organism growing in a conventional field is either a crop plant or a weed, and weeds are targeted for elimination by spraying fields with herbicides. Most conventional farm crops are armed with patented and genetically modified genes that help them to resist herbicides and to fight off diseases and pests (Wolf 2015). Most corn grown in the United States, for example, has been genetically modified with a gene from *Bacillus thuringensis* (Bt), a microorganism that produces a toxin fatal to the European corn borer and

other related insect species. Insects that eat these modified crops ingest the toxin, which crystalizes in their gut and soon causes them to die. Most conventional crops are also genetically protected against herbicides. This enables conventional farmers to douse their fields with chemicals so that nothing will survive except the desired crop plants.

Because of these practices, herbicides and pesticides not only find their way into our food, they are also carried downstream, along with fertilizer and other agricultural runoff. There they cause yet more environmental damage. Moisture content in conventional agriculture fields is regulated using “tiles,” pipes that run under the fields to drain off excess water. Tiling systems also carry a heavy load of nitrogen-rich fertilizer into waterways. This nitrogen load is not just pollution in itself; it leads to algae bloom that removes the oxygen content of the water. This leads, in turn, to fish kills, and to dead zones in the world’s oceans at the delta mouths of most major water systems worldwide.

Conventional agriculture also includes industrial meat production. For hogs and many other animals, this means *confined animal feeding operations*, or “CAFOs.” Hogs are raised in long low barns, where individual animals have little room for movement. From birth to death, they may never see the sun or breathe fresh air except once: the truck ride to the slaughterhouse where they are killed and their meat processed in factory-efficient division-of-labor production lines.

The products of conventional agriculture are driven by truck to factories where they are processed with preservatives and then packaged in disposable wrappers, after which they are shipped all over the world by trucks, train, and boat. The resultant consumer products are consistent, anonymous, and identical. Anything that could have identified these products as having come from somewhere in particular—a field in California, a CAFO in Iowa, or a feed lot in Wyoming—has been carefully removed in the process of packaging.

Advocates see sustainable agriculture as a non-industrial alternative that uses natural farming methods to produce food. Sustainable agriculture is frequently envisioned as small-scale production that avoids pesticides and herbicides, and which minimizes negative environmental impacts. Sustainable production often involves the use of heirloom or open pollinated crop varieties instead of genetically modified crops. Heirloom crops are traditional crop varieties, genetically descended from varieties that were grown long ago. Pests and weeds are managed by hand, or by non-chemical interventions. Integrated pest management (IPM) is a suite of pest control methods which can include chemical, biological, mechanical, and horticultural components. IPM minimizes chemical control by combining different natural management methods to create environmental conditions unfavorable to pests. Instead of killing them with poisons, farmers who use IPM carefully monitor their fields and crops so that they can identify the specific pests to be targeted. Then, to the extent possible, they use biological control or mechanical rather than chemical methods to control (rather than extirpate) pests. For example, IPM might involve the introduction of natural predators or pathogens or parasites to target a specific pest species, or the use of mechanical methods, such as screen barriers, to keep pests away from crops. Where these techniques are insufficient, IPM may involve development of disease or pest resistant cultivars for production.

Farmers who use these practices need to make a living. Economic viability through the sale of healthy food crops is a primary goal of sustainable agricultural production, but it is not the only one. Sustainable producers also aim to protect the environment. The term “agro-ecology” is used to describe agricultural practices that are intended to integrate seamlessly with the natural environmental systems in which farming takes place. Proponents of sustainable agriculture also aim to integrate farming as a sustaining community activity. Agriculture cannot be sustainable unless it keeps going from generation to generation. But a production process can only be maintained over time, in this way, if the people who are involved constitute a reliable intergenerational community. Communities are sustainable, on this view, only when their members know the people who grow their food, and when farmers produce specific food crops for members of their own community instead of producing mass industrial food inputs for faceless consumers much further down the economic pipeline.

An Ideological Worldview of Conventional Agriculture?

Farmers who are engaged in conventional agriculture often view themselves as feeding the world, not merely (merely?) feeding their local community. The large-scale machinery and other technology make possible an economy of scale that increases production by many orders of magnitude. Increasing the yield-per-hectare of production is an environmentally sound strategy, since it makes it possible to avoid placing new land under production. If we can “feed the world” on fewer productive acres of land, this will relieve us of the need to clear new land and plow up new fields. Genetically modified crops generally serve the same function and market as the non-modified crops they replace, but they enable farmers to increase yields in several different ways. Herbicide-resistant crops decrease competition between crops and weeds, since they enable farmers to use more herbicides without killing their crops. Pest-resistant crops like Bt corn make it possible for farmers to avoid using pesticides, since the crop protects itself against predacious insects. Crops like Bt corn minimize the environmental pesticide load, as well as minimizing the use of pesticides that might be harmful to human consumers. While Bt toxin crystalizes in the insect’s gut when it moves through the larval phase, it is not dangerous to humans because our gut chemistry is different from that of the target insects. Many conventional farmers see efforts to develop traditional or environmentally friendly modes of production to be essentially at odds with the goal of production: since conventional production methods have been expressly designed to maximize production, any divergence from those methods should be expected to reduce production levels from that maximum. But farming is essentially about production—the crop one harvests is the entire point. Why would anyone adopt practices that would be expected to reduce the size and value of the end result? In a competitive market, producers who are less efficient will be driven out by those who are maximally efficient. It follows that the only way to avoid being driven out of business is to adopt the most modern, the most effective, the most efficient, and the most

productive production system available. Further, intensive production methods may seem environmentally damaging, but in fact they are environmentally appropriate: by producing more on less land, high-tech production techniques make it possible to leave land fallow that would otherwise be farmed. By using intensive production methods, we actually relieve the overall environmental burden of agriculture. People who do not see that this is the right way—the only way—are idealistic utopians. Conventional farming uses the advantages of technology in the service of efficient production that reduces the environmental impact of agriculture.

Evaluating Ideologies?

One way to describe the differences between the two ideological perspectives described would be to say that conventional farmers believe that agriculture should be maximally productive, while advocates of sustainable agriculture think that agriculture must be sustainable. But are these goals entirely at odds with one another? Advocates of sustainable agriculture would point out that long-term productivity is served when sustainable methods are used. Perhaps the difference between these two views reflects reference to a different time horizon: advocates of sustainable agriculture have in mind productivity over a long term or indefinitely distant time horizon, while conventional farmers are focused on short-term productivity that will facilitate competition in a competitive global market where low-producing farms cannot stay in business.

If the descriptions capture, at least in part, the ideological differences between people who engage in conventional agriculture and those who hope to develop more sustainable alternatives, how can we critically evaluate them? It is characteristic of ideological commitments that they come to seem like necessary, fixed truths to those who are in their grip. Is there a way to distinguish features of these competing ideologies, to find out what they get right? Since we have no ideology-free platform from which to view them, our critical evaluation will no doubt carry some of our own unexamined commitments. Perhaps, however, we can develop the concept of “sustainability” so that it provides some purchase to enable us to evaluate these competing visions.

THE CONCEPT OF SUSTAINABILITY

What would it mean for agriculture to be sustainable? The concept of “sustainability” plays different roles in economic and philosophical contexts, and turns out to be both ambiguous and potentially vague. Because of this, it is useful to begin by identifying different ways that the term is used and to specify different things that are intended when people refer to agriculture, or other human practices, as “sustainable.”

Sustainability as Prevention of Deprivation

In broadest contexts, “sustainability” is couched very explicitly in terms of intergenerational fairness or intergenerational justice. One conception of this sort is the famous “Brundtland conception” of sustainability, named for the former Prime Minister of Norway, Gro Harlem Brundtland, who was responsible for the development of a United Nations report on sustainable development. According to the Brundtland definition, sustainable development is development that “meets the needs of the present generation without compromising the ability of future generations to meet their needs” (Brundtland 1987, 43). By extension, sustainable agriculture might be understood as agriculture that meets present needs while protecting the ability of future generations to meet their needs. The focus of this account is the prevention of deprivation with respect to basic needs, or the minimization of deprivation if prevention is not possible.

A closely related, though not identical account of sustainability appears in the work of the economist Robert Solow. According to Solow, sustainability essentially involves an obligation that we, as members of the present generation have, to “conduct ourselves so that we leave to the future the option or the capacity to be as well-off as we are” (Solow 1993, 181). Solow’s statement is couched in terms of well-being, while Brundtland’s is couched in terms of need satisfaction. To see that they are not identical, consider that Brundtland’s criterion is satisfied even if there is no later generation, while Solow’s criterion requires that there must be one, and its members should be as well off as we are. Perhaps it would be a mistake, however, to conclude from this that Solow’s criterion is more demanding than Brundtland’s: at present, many people are unable to satisfy their most basic needs. Brundtland would require that we meet their needs and future needs, while Solow would merely require that the rate of future unmet need should not be worse than present unmet need. While it may not be clear which of these criteria is more demanding, it seems clear that our present institutions do not satisfy either one.

Conceptions of sustainability like Solow’s, that assert an obligation to ensure that later generations are not worse off than we are, turn out to be problematic and ambiguous, there are different views about what it would mean for later generations with different population size to have the same welfare level as the present generation. Problems with various conceptions of intergenerational welfare were recognized by Henry Sidgwick, and later explored by Derek Parfit (Sidgwick [1874] 1981; Parfit 1984). To see the problem, consider whether it is sufficient that the total welfare of later generations must not be less than the total welfare of the present generation? Total welfare is calculated by simply adding up the welfare level of each member of a generation. If later generations are larger than the present generation because of population growth, then future generations might have equal total welfare even if every member is worse off. Should we instead use non-decreasing average welfare as the standard? Average welfare also has important limitations, since a repugnant policy to kill off those who are worse off will effectively increase the average utility level. Average utilitarianism also runs up against what Derek Parfit has called the “mere addition” paradox. Should we disapprove of the

existence of people whose lives are worth living merely because their welfare level is below the population average? Does their “mere addition” to a very well-off population really make things worse? One might see the Brundtland proposal and other need-based or capability-based proposals as alternatives to traditional welfare-based conceptions of sustainability, since they avoid some of these problems.

Other conceptions of sustainability focus not on needs or well-being, but on opportunities, capabilities, or freedoms. Thus, Brian Barry (1989, 494) urges that each generation should ensure that its successor enjoys the same range of productive opportunities, and Richard Howarth that “the members of future generations have a moral right to inherit a set of life opportunities that is undiminished relative to those enjoyed today” (Howarth 2007, 658). And more recently, Amartya Sen has suggested that sustainability, in the broadest sense, should be articulated as an obligation to preserve, and when possible expand, “the substantive freedoms and capabilities of people today ‘without compromising the capability of future generations’ to have similar—or more—freedom” (Sen 2004, 2009, 250).

These conceptions, focused as they are on human needs or welfare, opportunities, capabilities, or freedoms, may be contrasted with conceptions of sustainability that focus on resources. Bryan Norton (1999, 2005) recommends that we should develop a conception of sustainability that includes a “list of stuff,” an inventory of crucial resources we should pass on to future generations undiminished or undepleted. According to Norton, we have an obligation to pass on options to future generations, in the form of specific natural resources that will be available for human use. It is inappropriate, he argues, to think of natural resources as an undifferentiated mass of natural capital. Some resources are essential for human well-being, and we cannot hope to leave later generations adequately well-off unless these essential resources are maintained at safe minimum levels. Some resource use creates irreversible damage, while other resources can grow back or recover over time. Some resources, like breathable air, an adequately healthy biosphere, oceans that are not dead and depleted, are key resources. Norton argues that we should preserve such resources at safe minimum levels, so that future generations will not face scarcity constraints different from those faced by the present generation. He emphasizes that options are linked to, but not identical with opportunities: the option is the resource itself—the stuff that has been passed on. Opportunities, by contrast, are occasions when circumstances are right for people to use the resource that has been preserved.

Sustainability as Non-Depletionary Use

Focused, as it is, on the maintenance of resources themselves, Norton’s conception is closely related to another common conception of sustainability: that of non-depletionary use. On this conception, we use resources sustainably just in case our use of them does not leave less of the same resource for later generations. Non-depletionary use is only possible in the case of durable resources that do not degrade when they are used, or in the case of renewable resources that grow back as we use them.

In the case of renewable resources—an especially important case for agriculture—if we know the rate at which resources grow back, we can calculate the sustainable rate at which we can use them without depletion. This conception can be given a simple mathematical representation (Dasgupta 1974). If α is the rate of growth for a resource R —that is, the resource grows back by a factor of α for each given period of time—and K_1 is the amount of that resource available in period 1, then the amount available in period 2 will be αK_1 . If some amount C_1 of the resource is consumed in period 1, then the total amount available in period 2 will be $[\alpha(K_1 - C_1) = K_2]$. The sustainable rate of consumption will be a consumption rate C_1 that will leave an undiminished supply of resources for the next generations, so that $K_2 = K_1$. To find this sustainable rate C_1 , simply solve $[\alpha(K_1 - C_1) = K_1]$ to express C_1 in terms of K_1 and α . In English, that means that the amount of the total stock (K_1) minus the amount consumed in period 1 (C_1) multiplied by the growth rate α should equal the amount of the resource that was available at the beginning of the process. If the resource is consumed at a rate no faster than this—that is, no faster than the rate at which the resource regenerates or grows back—then present use will result in no diminishment of the resource available for the next generation. This conception of sustainability as non-depletionary use is regularly applied in agriculture and environmental management sciences. Whether the calculation involves the amount of fish that can be taken without depleting a fishery, the rate at which trees can be cut without reducing the overall biomass of a forest, or the rate at which soil may be degraded in a year without reducing its fertility for the following year, the goal of non-depletion is to use the resource without reducing the total stock available in the next period—or to the next generation.

If the concept of sustainability is to be used to inform decision-making and policy choice, it sometimes matters quite a lot which conception is used, and how, very specifically, that concept is formulated. But it would be a mistake to think that one and only one of these conceptions of sustainability must be the right one, while all the others are wrong. Different conceptions might be appropriate for different decision contexts, or at different levels of decision-making. For example, we might need a broader and more general conception of sustainability to fit into a general theory of intergenerational justice, while more concrete and specific conceptions will be needed to evaluate agricultural production systems, or to use in making environmental management decisions.

Agricultural Sustainability and the “Triple Bottom Line”

In literature on sustainable agriculture, the most common conception of sustainability used is the so-called three-legged stool, or triple bottom line (TBL) conception. According to the TBL conception, an agricultural production system is sustainable just in case it is ecologically, economically, and socially sustainable. The benefit of this account is that it directs our attention toward the human institutions and environmental systems that must be maintained if agricultural production is to be stable over long periods of time. But the problem with this conception of sustainability is that it is not

a definition of sustainability at all: it is circular, since it uses the term “sustainable” to define itself. Before this conception can tell us anything about what we ought to do to achieve sustainability, it needs to be filled in. We need two different conceptions of sustainability, S_1 and S_2 so that we can interpret TBL as defining a conception of sustainability S_1 such that a production system is S_1 -sustainable just in case it is ecologically, economically, and socially S_2 -sustainable.

What conception fits into S_2 ? We might experiment, trying each of the conceptions discussed in turn. In the case of agriculture, it may be most useful to think of S_2 sustainability as the conception associated with non-depletionary use. Understood in this way, the TBL conception draws our attention to three different kinds of resources that need to be maintained if an agricultural production system is to keep going: economic, social, and environmental.

A production system depletes its *economic* resources if the people who run it cannot make a living. Businesses that go bankrupt are not sustainable in this simple sense. Similarly, agricultural production systems involve human resources, and human beings live in societies. If the community of people running the system is dying or disintegrating, the system cannot keep going into the long-term future. A sustainable system needs to avoid depleting the human resources—*social resources*—that it needs. A social system—a community—is sustainable only if the norms that create and constitute it can be passed on more or less intact from one generation to the next. Finally, a sustainable agricultural production system must be *environmentally* non-depletionary: it must not undermine the environmental resource base on which it depends. Other things being equal, production methods that progressively damage the soil will eventually pay for that damage with diminished productivity. In the short run, damaged soil can be supplemented with fertilizer to cover over the damage, or with other technologies, such as improved crop varieties, that may help to maintain yield. But unless the supply of fertilizer or the technology fix are also stable and sustainable, this cannot be a long-term solution.

How is this TBL conception of sustainability related to the earlier accounts from Brundtland, Solow, and others? Like Solow, the TBL conception aims to describe a process that can continue, with undiminished productivity in the future. Unlike Brundtland, the TBL conception is not primarily concerned with meeting generational needs. It is easy to see, however, how one might conclude that TBL-sustainable agricultural systems might be practically necessary if we hope to satisfy future needs, or to achieve any of the more general sustainability goals discussed so far. This may explain why the TBL conception is so frequently used to analyze and understand agricultural production systems.

Costs, Benefits, and Scale

The TBL conception of sustainability is usually applied at the level of an individual farm. But when we ask whether a broader system—for example, an agricultural production

system—is sustainable, it will matter a great deal at what scale we consider the question. At the level of an individual farm, we might consider whether the farm provides a living-wage income for those who operate it (economic sustainability), whether the farm provides a satisfying and desirable way of life, sustaining the social needs of the community it supports (social sustainability), and whether it preserves the fertility of the soil and other environmental resources on which production is based. So far so good: an agricultural production system that successfully meets these goals is sustainable in at least the minimal sense, at a modest scale of analysis.

But farms exist within larger communities, towns, states, and nations, and they depend for their continued existence on the stability of these larger units. The economic sustainability of a farm will depend on the economic circumstances of the state and the nation. If farms depend on subsidies for their survival over time, as many in the United States and elsewhere do, then evaluating the economic sustainability of the farm will require examination of the political and economic basis of the subsidy system. And since most farms use resources that are brought in from the outside—tractors, fuel, fertilizer, pesticides, fence-posts, and other necessities—a full-scale evaluation of the sustainability of any farm will require evaluation of the sustainability of the total system of inputs and outputs. As is so often the case, evaluating a part of the system requires an evaluation of the whole system; evaluating the sustainability of a single farm requires an evaluation of the sustainability of the broader economic, social, and environmental systems in which the farm is situated. Understanding the part requires an understanding of the whole.

In spite of the fact that large-scale (even global-scale) analyses must always have the final word, there are two important reasons why smaller scale (including farm-scale) analyses are valuable, instructive, and indeed essential if we hope to make judgments about the sustainability of farms, agricultural systems, or indeed any institution at all. First, the sustainability of large-scale systems is often a function of the sustainability of their smaller-scale components: a whole made up of sustainable parts is not guaranteed to be sustainable, since there may be cumulative effects. But often, the most practical way to construct larger sustainable systems is by ensuring that the parts that comprise them are individually sustainable. Second, and even more important, smaller-scale analyses of large-scale social institutions are humanly possible. We can model some global-scale phenomena (e.g., climate), but we have not yet learned how to model and implement sustainability analyses of social and agricultural institutions on a global scale. The data requirements for such an analysis would be bewildering, and at present, such an analysis is unmanageable.

In spite of these difficulties, the ideal of sustainability provides a valuable norm for evaluating human-scale institutions, modes of agricultural production, and farms. When asking whether farming practices or food crops are sustainable, or sustainably produced, we can consider the various inputs and outputs involved. It may be impossible, at this scale of analysis, ever to confirm definitively that a farming practice or individual farm is fully sustainable. But it is often possible to use such analysis to discover ways in which our practices are not sustainable. Where agricultural practices

impose progressive environmental damage at a rate faster than the replenishment rate, they are unsustainable in a simple and obvious sense that can be revealed in analysis. Where farming involves the use of depletable resources like phosphorus, it is predictable that production methods cannot continue if these resources run low. More broadly, there are some resources, like coal and oil, that cannot be used at any sustainable rate: once they are used, they are gone. In the case of fossil fuel, resource use imposes another quite permanent environmental cost that constitutes a form of progressive environmental degradation: burning fossil fuels moves carbon from the earth's crust into the earth's atmosphere, in the form of CO₂. Once in the atmosphere, CO₂ may remain there for centuries, reflecting solar radiation back to the earth, and contributing to global warming and global climate change. No production system that is based on fossil fuel consumption can ever be fully sustainable. But in the developed world, virtually all agricultural production uses fossil fuels at some point in the process, whether it is oil for the tractor, plastic used in packaging, or fuel used to transport produce to market.

Does this sound bleak? Is sustainable agricultural production therefore impossible? Three final considerations may serve to soften the blow. First, even if we discover that no currently available system of agricultural production is fully sustainable, we can improve these production methods by analyzing the inputs and outputs they require, and considering their impact on the environmental, social, and economic systems into which they are integrated. We can use the norm of sustainability to improve our agricultural systems so that we minimize the costs they impose on the human and natural environment. Second, analyzing different institutions or production systems can help us to make judgments about which ones are less (or more) sustainable than the available alternatives. Comparative judgments of this kind matter and can help us to move toward more sustainable practices even when we are unable to employ fully sustainable methods. Third and finally, if we find that we are unable, at present, to make our agricultural production systems fully sustainable, we may be able to offset the disadvantages associated with unavoidable unsustainable practices by expanding other kinds of options. For example, our use of irreplaceable fossil fuels might impose a constraint on later generations, but we might compensate by investing in research to develop alternative and more environmentally sustainable forms of energy. For example, we might invest in technologies to sequester CO₂, or even technologies that would remove CO₂ from the atmosphere. In general, if we are unable to achieve sustainability, we can at least hope to compensate future generations for our unsustainable practices, and to improve their chances of achieving the goal more perfectly than we can.

The Triple Bottom Line and Judgments about Sustainability

It is easiest to make comparative judgements when comparisons can be done on a single scale. If judgments about sustainability could be calculated precisely, then we could

imagine assigning a real number value to the sustainability of any practice or institution. Perhaps perfect sustainability should be represented as zero, while unsustainable systems would be given a negative number—a larger number for institutions or practices that are more unsustainable, with a smaller negative number for those that are less so. In that case, to compare the sustainability of one practice against that of another we could simply compare the precisely calculated real numbers representing their degree of sustainability.

Unfortunately, in this case, we do not have analytic tools to make such precise judgments. The strength of the TBL conception is also a weakness: while it draws our attention to different systems—economic, social, and environmental—on which sustainable agriculture must depend, it puts us in the position of making comparative judgments across radically different categories. If we could improve social sustainability, but only at cost to economic sustainability, how should we evaluate that change? If environmental sustainability comes at economic and social cost, is there some systematic way to balance these against each other? Standard cost-benefit analysis practice, as developed by economists and practiced by project analysts, typically assumes that all values can be represented as monetary costs and benefits, but advocates of sustainable agriculture and sustainable ecosystem management have expressly rejected that view (Norton 2002, 2005; Thompson 2010). Without further development, the TBL conception of sustainability does not support precise judgments about the relative sustainability of alternative methods of agricultural production. However, some judgments can confidently be made even with tools that are imprecise. Even without a full theory about how social, economic, and environmental costs should be compared with each other, we can already make judgments about the relative sustainability of alternatives that vary along one of these dimensions. In many cases, this will be enough.

COMPARING THE SUSTAINABILITY OF ALTERNATIVE AGRICULTURAL PRACTICES

Suppose we have two different pest management systems that are equally effective, but one involves the infliction of more progressive environmental damage than the other. Other things being equal, we might reasonably judge that the one that inflicts less damage is the less unsustainable of the two. We may sometimes be able to make similar judgments about agricultural systems and crops, and even about consumer food practices. For example, we can ask whether meat and animal agriculture is more or less sustainable than vegetarianism, or than diets that include less meat. We can address the question whether genetically modified crops might be an appropriate component of a sustainable agricultural system. And we might ask whether “eating local” is an appropriate strategy for food-conscious consumers who want to adopt a

more sustainable (or less unsustainable) diet. This section will briefly evaluate three questions: Can animal agriculture be sustainable? Is the use of genetically modified crops consistent with sustainable production? And are we more sustainable consumers when we buy local produce? A fuller treatment of sustainable agricultural practices would require examination of many more issues than these. The goal, in this case, is not to resolve the issues raised, but to show how an ideal of sustainability can be used to frame decisions we might make about food, agricultural technology, and agricultural production systems.

Animal Agriculture as a “Mirror of Nature?”

Advocates of sustainable agriculture, as a group, are ambivalent about meat and about animal agriculture in general. Some people argue that meat production and animal agriculture can never be sustainable. Others urge that there are appropriate and sustainable ways to raise animals for food, and some people even argue that environmentally sustainable production systems must include animals. Among participants in this debate, there is no real dispute about the fact that meat is less environmentally efficient than plant-based agriculture as a way to produce food or that vegetarian diets impose lighter costs on the planet. Nor is there significant disagreement about the fact that standard mass-meat-production systems are among the more significant contributors to pollution and greenhouse-gas emissions. The Environmental Working Group (EWG) reported a 2011 study in which they found that beef production results in about 27 units of CO₂ for every unit of beef produced. This compares with 2 units of CO₂ produced for every unit of beans produced. According to the EWG data, lamb is the least efficient meat, at 39.2 units of CO₂ for every unit of lamb. Lentils are the most efficient, at 0.9 units of CO₂ for each unit of lentils (EWG 2011). According to the United Nations Food and Agriculture Organization (FAO), livestock were responsible for about 14.5% of all anthropogenic greenhouse-gas emissions in 2007 (FAO 2007). Another group of researchers estimated in 2009 that the adoption of a universal worldwide vegan diet would result in a reduction in global carbon emissions by 17%, a reduction in methane emissions by 24%, and a reduction in nitrous oxide emissions by 21% (Stehfest et al. 2009). If the goal is to minimize greenhouse-gas emissions, then cutting down on meat would seem to be the right thing to do. And these emissions are not the only environmental cost of animal agriculture.

Obviously, the world is not going to adopt a universal vegan diet. And some sustainable agriculture advocates urge that it would be a mistake to do so, since there are other considerations at play: one strategy for the development of sustainable agricultural production involves the attempt to develop systems that mirror the ecosystem function of the biotic communities they replace. Such “biomimicry” is favored because environmental systems are regarded by some to be more natural and more sustainable than human-created counterparts. But if biomimicry is the goal, then

eliminating animal agriculture might be a mistake. In a famous passage, Sir Albert Howard writes:

Mother earth never attempts to farm without live stock; she always raises mixed crops; great pains are taken to preserve the soil and to prevent erosion; the mixed vegetable and animal wastes are converted into humus; there is no waste; the processes of growth and the processes of decay balance one another; ample provision is made to maintain large reserves of fertility; the greatest care is taken to store the rainfall; both plants and animals are left to protect themselves against disease. In considering the various man-made systems of agriculture, which so far have been devised, it will be interesting to see how far Nature's principles have been adopted, whether they have ever been improved upon, and what happens when they are disregarded. (Howard 1943, 4)

Many sustainable agriculture advocates work to incorporate meat production in sustainable systems, in part because they view animal waste—manure—as a natural substitute for fertilizer. In fact, since manure came first, they might more properly view fertilizer as an inferior substitute for manure, not the other way around. While Howard's words are often taken as a defense of the idea that animal agriculture can be environmentally appropriate, it is easy to see that they provide no defense at all for conventional methods used to raise animals for meat. Howard aimed to develop an agricultural production system that mirrored the structure and function of the natural system it replaced. No confined animal feeding operation will do this.

Howard's work advocates agricultural biomimicry—the effort to develop agricultural systems that mimic the structure and function of “natural” biological systems. Such biomimicry may be a promising way to develop non-depletionary modes of production. But biomimicry is not an end in itself, and farming systems that mirror the structure of natural systems may or may not be more sustainable than the alternative production systems they could replace. According to the TBL conception, agricultural systems that mimic nature must be judged according to their ability to create profitable, environmentally non-depletionary production systems that support the communities that keep them going. The principal burden, in the case of animal agriculture, is to show that the environmental benefits associated with animals will outweigh the environmental damage farm animals inflict. If this cannot be shown, then no amount of biomimicry will save the claim that animal agriculture is sustainable agriculture.

Biotechnology as Sustainable Agriculture? The Case of Genetically Modified Crop Varieties

Genetically modified (GM) crops present another challenge for sustainable agriculture. Many people regard GM crops as inimical to sustainable agriculture. There are many different kinds of reasons for this view. Some regard biotechnology as essentially unnatural and are convinced that unnatural crops can never be part of a sustainable system. Others are concerned about the human or environmental health effects of GM crops. It

is often urged that we should adopt a precautionary approach to the use of genetically modified organisms, and that we should therefore avoid using them, since we cannot be sure what risks are involved in the use of this relatively young technology.

The claim that GM crops are “unnatural” constitutes a very questionable reason for excluding them as inappropriate for inclusion in sustainable agricultural systems. As already noted, “natural” is a tricky term. By some standards, agriculture itself, whether sustainable or not, is not natural, nor are antibiotics and other life-saving medicines, or books or music or computers. And condemnation of practices people regard to be “unnatural” often hides underlying prejudices. The fact that GM crops are “unnatural” is a very weak reason to exclude them as unsustainable agriculture.

What about risk? There are risks associated with the introduction of any new organism, or new variety. Kudzu began as an agricultural crop, imported from Asia, but it took over in the American South, and has been responsible for very serious environmental problems. The *ex ante* risk associated with GM crop varieties should be expected to be smaller than the risk associated with the importation of a new non-GM agricultural species, at least when the GM variety is a member of a species that is already in use as a regional crop. The reason for this is that the difference between the modified crop and the original crop should be expected to be relatively small, as compared with the difference between existing crops and new non-GM species we might import. But it is worth asking whether this difference will always be small—minute genetic changes can sometimes have dramatic phenotypic effects. Some of these effects may not be obvious from the start.

Consider the case of pest-resistant crops. Farmers who use Bt crops can avoid using pesticides, with the associated environmental damage pesticides inflict. If Bt crops result in less pesticide use, that would be a reason to consider them more sustainable than their non-GM alternatives.

When considering whether to employ new crops or crop varieties, we should consider the relative risks associated with GM crops, as compared with the risks associated with any of the non-GM alternatives we might otherwise employ. It is difficult to make the case that the risks of GM crops as a group should be higher than the risks associated with new varieties developed through traditional selective breeding methods. Because GM crops, as a group, have very little in common with each other, it is very unlikely that any common risk factor would apply to them all. Because of this, the fact that a crop variety was produced through genetic modification is not by itself a reason to think that its use is risky or unsustainable.

Precautionary principles urge that we should forbear from the use of potentially risky technologies, even if the risks are imperfectly understood. This makes sense where consequences are potentially irreversible or catastrophic, and where we have no way to estimate the probability that these consequences will result. But critics point out that there are risks associated with all alternatives, no matter what the choice context may be. The precautionary argument assumes that the status quo is less risky than interventions to the status quo, but this is not always the case. To argue that some GM crop present risks, one must also consider the risks associated with the use of the alternative non-GM crop one might otherwise grow.

I do not mean to pre-judge the outcome of such a comparison. There are surely some conventionally bred or “natural” crops that would be risky to use. It seems likely that some GM crops will be significantly less risky, by comparison. What I will urge, however, is that broad generalizations about the risks associated with GM crops—for example, the claim that GM crop varieties pose higher risks to human and environmental health than non-GM alternatives—are sure to be wrong. The case for or against GM crops should be made on a case-by-case basis, without prejudging the conclusion.

Might sustainable agricultural production systems include the use of genetically modified crops? Maybe. The argument that such crops are unsustainable “because they are unnatural” will be weak if the use of these crops can be shown to reduce pesticide use or to reduce the amount of land under production. At this point in time, there is no conclusive evidence that GM technology has reduced the use of pesticides or reduced the amount of land under agricultural production, though there may be reasons to think that GM crops might help with respect to both of these goals. There is no shortcut: to make such a judgment, we need to consider the environmental, social, and economic effects of individual GM crops. The considerations relevant when evaluating the GM papaya, widely believed to have saved Hawaii’s papaya industry, will be entirely different from those relevant to evaluating herbicide-resistant soybeans. To make a case for or against the sustainability of farming systems that employ GM varieties, it will be necessary to judge the real effects of the specific variety being used.

Eating Locally?

A common recommendation from advocates of sustainable agriculture is that we should eat locally. When consumers buy fresh produce from local producers, the food travels less, saving fuel costs, as well as packaging and processing costs associated with ordinary grocery store produce, which has often been flown, sailed, and trucked in from distant farms on the other side of the world. A local grocery store in the United States may carry lamb from New Zealand, chocolate and coffee from West Africa, and grapes from South America. Some recommend the term “food miles” as a measure of the transportation costs associated with goods that travel long distances from producer to consumer. The environmental cost of such produce includes the total environmental cost of its production but also the cost to package it and ship it across the world to a consumer. Consumers who buy local produce cut out all those intermediate costs.

The injunction to “eat locally” is not without its critics. Some argue that local production and consumption may have more costs than the argument recognizes: some argue that the transport costs for local foods may sometimes be greater than the transport costs for foods that are transported farther. There are two factors that could cause this: local foods are usually transported in smaller quantities, so if transport costs are not simply measured in food miles, but (say) in food-miles per kilo, it may sometimes turn out that the per-kilo food cost of food produced by small-scale producers is greater

than one might expect. In addition, conventional foods are often transported en masse to a major hub: a grocery store or an everything-store, where consumers go to purchase many different things. Advocates of sustainable agriculture often urge that shopping at multi-product everything-stores is an impersonal corporate experience, while shopping at a CSA or a farmers' market provides community benefits. Is it possible that there could be transport-cost savings for people who shop at such places? If everything-stores result in fewer shopping trips, then there might indeed be savings. But this possibility is not sufficient to provide convincing support for the view that the travel-cost of local foods is greater than the travel cost of foods in impersonal corporate everything-stores. It is likely that travel costs will differ vastly for different items. But when we judge whether eating locally is more sustainable than the alternatives, it will not be enough to rely on vague hunches about food miles. Vague hunches are often informed by information and may reflect good judgment. But sometimes they are just wrong. To be confident in such judgments, it will be necessary to try to estimate the various costs and benefits, and to do the math (Sexton 2009; Martinez 2010; Cowen 2013).

A second critical perspective on the movement to "eat locally" calls into question whether the goal is possible for city dwellers. In a study focused on Seattle, Washington, Jeffrey J. Richardson and L. Monika Moskal (2016) considered different ways to maximize land use within the city to estimate the maximum food crop production capacity for a city like Seattle. They found that Seattle could produce between 1% and 4% of the city's food needs, but only if every resident used all backyard space for food production, if public green spaces were converted into gardens, and if everyone in the city converted to a vegetarian diet. In order for Seattle residents to "eat locally," the study estimates that Seattle would need to install an agricultural buffer zone of about 58 km around the city. According to the authors of this study, one of whom is himself a small-scale local producer, Seattle citizens are unlikely to "eat locally" for more than a tiny fraction of their diet.

If these results hold up, do they imply that "eating locally" will remain an unreachable goal for most people—at least for people who live in urban and city environments? Perhaps. It would be inappropriate to put too much weight on a single study. But if the overall goal is to move toward a system of agricultural production that avoids depleting natural resources, Richardson and Moskal's study does not imply that eating locally is an inappropriate step toward achieving that goal, only that sustainability will, in the end, take much more. Because sustainability is not an all-or-nothing goal, steps toward a more sustainable diet can be valuable and significant even if they do not achieve the whole goal.

Moreover, the benefits of eating locally cannot just be measured in food-miles or food-miles-per-kilo. Recall that sustainable agriculture requires non-depletory production processes and economic security (sustainability) of farms. But it also requires the stability of the communities in which agriculture takes place. For people who "know their farmer," eating is a community-building action, not mere consumption. In the best case, we might hope that eating can be an environmentally appropriate interaction within a thriving community of producers and consumers who mutually support

one another in the production and consumption of delicious and nutritious food. That seems a worthy goal, one worth working to achieve.

AGRICULTURE, FOOD, AND THE ETHICS OF PERSONAL CONSUMPTION

Most of us are not farmers, making choices about pesticide use and crop yields and tilling practices. Even fewer of us are agronomists, working to develop environmentally and socially sustaining techniques of agricultural production. We encounter our food on the plate, not in the field. No doubt many of us prefer it that way: food rituals are a respite from other obligations and an opportunity for social interaction. But eating is a political and moral action as well, and our food choices reflect underlying values in at least two different ways. First, people can make purchasing and lifestyle choices that expressly and intentionally reflect underlying values. Deciding to “eat local foods” or to be vegetarian are typically choices of this kind. But there is a second way in which food choices reflect values: if our food is produced unsustainably, if its production involves the exploitation of workers and undermines families and communities, if it is produced in ways that compromise important environmental resources that are needed by future generations, then our purchase and consumption of it embodies values we might reject if we understood and reflected on them. In order to know what values our food choices express, in this second sense, we need to know where our food comes from, how it was produced, and what alternatives are available. Sustainable agriculture embodies an ideal of agricultural production that expresses values of environmental responsibility, intergenerational fairness, and the integrity of human communities. The goal? Food we can enjoy with good conscience and full understanding; food that can be consumed without imposing unfair costs on future generations; food that is produced on farms that support the economic and social needs of the people who are involved in farm production. Even modest steps toward such a goal are worthwhile.

BIBLIOGRAPHY

- Barry, Brian. 1989. *Democracy, Power, and Justice: Essays in Political Theory*. New York: Oxford University Press.
- Cowen, Tyler. 2013. *An Economist Gets Lunch: New Rules for Everyday Foodies*. New York: Penguin Books.
- Dasgupta, Partha. 1974. “On Some Alternative Criteria for Justice between Generations.” *Journal of Public Economics* 3:405–423.
- Diamond, Jared. 1987. “The Worst Mistake in the History of the Human Race.” *Discover* May, 64–65.

- Environmental Working Group (EWG). 2011. "Meat Eater's Guide to Climate Change and Health: Lifecycle Assessments." http://static.ewg.org/reports/2011/meateaters/pdf/methodology_ewg_meat_eaters_guide_to_health_and_climate_2011.pdf.
- Fleurbaey, Marc. 2015. "On Sustainability and Social Welfare." *Journal of Environmental Economics and Management* 71:34–53.
- Howard, Albert. 1943. *An Agricultural Testament*. New York: Oxford University Press.
- Howarth, Richard. 2007. "Toward an Operational Sustainability Criterion." *Ecological Economics* 63:656–663.
- Huxley, T. H. 1894. *Evolution and Ethics*. London: MacMillan.
- Keith, Lierre. 2009a. "The Vegetarian Myth: Food, Justice, and Sustainability." Berkeley City College, November 20. https://www.youtube.com/watch?v=TsHaFTia_Dw.
- Keith, Lierre. 2009b. *The Vegetarian Myth*. Crescent City, CA: Flashpoint Press.
- Martinez, Steve, et al. 2010. "Local Food Systems: Concepts, Impacts, and Issues," ERR 97, U.S. Department of Agriculture, Economic Research Service, May 2010. <https://www.ers.usda.gov/publications/pub-details/?pubid=46395>.
- Mill, John Stuart. [1894] 1998. "Nature." In *Three Essays on Religion*, by J. S. Mill, 3–65. New York: Prometheus Books.
- Norton, Bryan. 1999. "Ecology and Opportunity: Intergenerational Equity and Sustainable Options." In *Fairness and Futurity*, edited by Andrew Dobson, 118–150. New York: Oxford University Press.
- . 2002. "The Ignorance Argument: What Must We Know to be Fair to the Future?" In *Economics, Ethics, and Environmental Policy*, edited by Daniel Bromley and Jouni Paavola, 35–52. Oxford: Blackwell Publishers.
- . 2005. *Sustainability: A Philosophy of Adaptive Ecosystem Management*. Chicago: University of Chicago Press.
- Parfit, Derek. 1984. *Reasons and Persons*. Oxford: Clarendon Press.
- Purdy, Jedediah. 2015. *After Nature*. Cambridge, MA: Harvard University Press.
- Richardson, Jeffrey J., and L. Monika Moskal. 2016. "Urban Food Crop Production Capacity and Competition with the Urban Forest." *Urban Forestry & Urban Greening* 15:58–64. doi: 10.1016/j.ufug.2015.10.006.
- Sen, Amartya. 2004. "Why We Should Preserve the Spotted Owl." *London Review of Books* 26, no. 3: 10–11.
- . 2009. *The Idea of Justice*. Cambridge, MA: Harvard University Press.
- Sexton, Steven. 2009. "Does Local Production Improve Environmental Health Outcomes?" *Gianni Foundation of Agricultural Economics* 13, no. 2: 5–8.
- Sidgwick, Henry. [1874] 1981. *The Methods of Ethics*. Indianapolis, IN: Hackett.
- Solow, R. M. 1991. "Sustainability: An Economist's Perspective." In *Economics of the Environment: Selected Readings*, edited by R. and N. Dorfman, 179–187. New York: W. W. Norton.
- . 1993. "An Almost Practical Step toward Sustainability." *Resources Policy*, September, 162–172.
- Stehfest, Elke, Lex Bouwman, Detlef P. van Vuuren, Michel G. J. den Elzen, Bas Eikhout, and Pavel Kabat. 2009. "Climate Benefits of Changing Diet." *Climatic Change* 95:83–102.
- Thompson, Paul. 1995. *The Spirit of the Soil*. New York: Routledge.
- . 2010. *The Agrarian Vision*. Lexington: University Press of Kentucky.
- United Nations Food and Agriculture Organization (FAO) 2007. "GHG Emissions by Livestock." <http://www.fao.org/news/story/en/item/197623/icode/>.

- Wolf, Clark. 2012. "Environmental Ethics, Future Generations, and Environmental Law." In *Routledge Companion to the Philosophy of Law*, edited by A. Marmor, 397–414. New York: Routledge.
- . 2013. "Intergenerational Distributive Justice." In *Routledge Companion to Social and Political Philosophy*, edited by J. Gaus and F. D'Agostino, 467–479. New York: Routledge.
- . 2015. "Patent Fairness and International Justice." *World Intellectual Property Organization Journal* 7, no. 1: 62–72.

CHAPTER 3

FARMING, THE VIRTUES, AND AGRARIAN PHILOSOPHY

PAUL B. THOMPSON

AGRICULTURE AND FARMING

COMMON wisdom holds that food comes from farms, and some version of a family farm is often presumed to be the way that agriculture is or should be organized. This essay queries that presumption; or, to be more precise, it examines two philosophical approaches that might be pursued in the attempt to query it. I propose that we think of the issues in terms of two competing philosophies of agriculture. The view that I have (somewhat mischievously) called the *industrial philosophy of agriculture* presumes that food and fiber production should be approached just like any other sector of an industrial economy when evaluated from the perspective of ethics. This implies that we should evaluate food production in much the same terms that we use to evaluate the automobile industry or the steel industry. We can ask whether workers are being treated fairly, and we can ask whether production methods cause pollution or consume too many resources. People with different philosophical orientations will have different answers for these questions, of course. Those who advocate for greater social equality may be more disturbed by the low wages and poor working conditions of field hands, for example, while others of a more libertarian bent may think this outcome to be the morally neutral workings of the labor market. Feminists may criticize the gender stereotyping of “farmers” as male and can go further in their critique when property laws and government farm policies aligned with this stereotype create hardship, exclusion, and barriers for women (as they do in many parts of the world). There is a lot to say about the ethics of food production given the assumption that agriculture is just one of several key sectors in the industrial economy (Thompson 2010). In labeling this approach as an industrial philosophy, I do not mean to imply that it necessarily recommends industrial agriculture.

The alternative to this approach takes up a long history of social, political, and ecological writers who see farms and farming as having some form of special significance that makes agriculture different from other sectors of the economy, and especially from manufacturing. Although there is significant diversity in the ways in which agriculture might be thought to have special significance, I lump these approaches together as *agrarian philosophies of agriculture*. In considering this history, I hope to show that someone who takes contemporary ethical theories as the starting point for evaluating the organization of agriculture is, for all intents and purposes, adopting the presumptive orientation of the industrial philosophy of agriculture. Readers might fairly accuse me of a doubly mischievous intent, for not only am I duplicitous in my usage of the word “industrial,” my inquiry into the philosophy of agriculture is also meant to place some limitations in contemporary food ethics on display. Nevertheless, I will not argue directly for these broader implications, and I do not say that that ethical theory and applied ethics are entirely without resources for accommodating and adapting the insights I will exhibit by taking a more historical approach.

In fact, I do not contend that agrarian philosophies are inherently superior. The contrast between the industrial philosophy of agriculture and agrarian alternatives takes on importance for food ethics in three ways. First, it is a heuristic device for gaining an initial purchase on the diversity of ways that various methods or social institutions for food production might be evaluated from an ethical perspective. Both philosophies I will outline are quite general and require more specification before they yield ethical evaluations that could be subjected to classical tests for logical or normative adequacy. Second (and here is where the mischievousness comes in), many current critiques of industrial agriculture derive from the assumption that it can be analyzed and ethically evaluated using the same concepts and norms that would be used to critique any other sector of the economy. The moral ontology that is implicit in this form of critique is itself a cultural product of the Industrial Revolution. The thought process of many contemporary food activists aligned against concentrated animal feeding operations (CAFOs), genetically engineered crops, and the large corporations that are said to be in control of the food system comes straight out of this philosophy as it gets applied to agriculture. If critics are aware of the way in which agrarian approaches suggest an alternative way to think about food systems, the nature of their critiques does not suggest it. So third, gaining some grasp of agrarian philosophies should be a goal for anyone who hopes to develop a comprehensive and philosophically rich understanding of food ethics. It is especially crucial for understanding why preserving “the family farm” might be an ethical issue.

In short, this chapter is offered as an introduction to the philosophy of agriculture geared to these three ways in which having a philosophically articulate view on the social goals of agriculture and farming is relevant for food ethics. Given that the critiques derived from an industrial philosophy of agriculture are well represented elsewhere in this volume, the main focus of the chapter is to outline some issues in food ethics that are especially sensitive to agrarian values. The chapter works through several ways of configuring and articulating an agrarian philosophy, ending with the

views of influential contemporary agrarians such as Wes Jackson and Wendell Berry. But, first, it is important to situate this discussion of agrarian philosophy by emphasizing the importance of claims and critiques that are mounted from an industrial perspective.

WHY THE INDUSTRIAL PHILOSOPHY OF AGRICULTURE IS IMPORTANT

A family of somewhat generic approaches to questions in social ethics began to emerge in the closing decades of the eighteenth century. Drawing upon sources as diverse as the natural law tradition instituted by Hugo Grotius (1583–1645) and the mathematics of the Bernoulli family (Jacob [1654–1705], Johann [1667–1748], and Daniel [1700–1782] among others), the closing decades of the 1700s witnessed a powerful formulation of consequentialist ethical theory in the writings of Jeremy Bentham (1748–1832) and the masterful deontological ethics of Immanuel Kant (1724–1804). Figures in the Scottish Enlightenment helped give shape to these approaches to ethics by describing a sequence of developmental stages. For the Scots, moral sentiments emerge largely as tribal sympathies. These sentiments become institutionalized as a system of interpersonal relationship norms in settled agricultural societies. As more complex civil societies emerge, moral codes are needed to specify norms for conducting one-off transactions with strangers. In trading societies, there is a further evolution toward more abstract moral codes reflecting the judgment of an impartial spectator (Smith 1759). Bentham's utilitarianism and Kant's categorical imperative can be understood as ways of conceptualizing the criteria that such a spectator might apply.

For present purposes, it is important to stress how applicability across a broad spectrum of transactional relationships came to be one desideratum for social ethics throughout this period in philosophy. Norms for agrarian societies could be place-specific because farming was of necessity practiced at a particular place. As roads and transport networks improved, it became possible to move farm commodities from village to village, leading to a period of social upheaval as more generic legal codes for specifying the rights and responsibilities for trade began to evolve (Thompson 1971). Norms that initially evolved for trade of harvested commodities could be equally well applied to manufactured goods, giving rise to a conception of an economy with a highly specialized division of labor that is nonetheless overseen by a generalized conception of social ethics applicable to all the various trades and sectors emergent during the early years of the Industrial Revolution. The summary just given indicates that there are diverse and competing philosophical strategies for resolving the problem of developing a generic approach. Hence, we have the plethora of consequentialist, deontological, and contractualist or communitarian approaches to ethical theory that is familiar today. When I speak of an industrial philosophy of agriculture, I mean only

to say that agricultural production can be seen as falling under the same general set of norms and concepts that might be used to evaluate and critique production practices in manufacturing, transportation, energy, or other commercial sectors of the economy. Rights theorists and utilitarians might disagree in how they would analyze a problem in food ethics, but they tend to agree that whatever approach wins out philosophically will be as applicable in agriculture and food as it is in health care, industrial labor relations, or energy ethics.

For example, agricultural laborers have been among the least well compensated among all forms of wage or piece labor in the industrial economy throughout the twentieth century. Workplace reforms that began to be enacted in the 1930s called for a cluster of legal entitlements intended to equalize power relations between employer and employee, and to institute key protections for all workers in an industrial economy. These include basic amenities and opportunities for personal necessities, workplace safety provisions, child labor laws, limitations on the length of shifts, minimum wages, and other more complex rules for insuring fair employment practices. Not the least of these was a hard-won right to organize. For various reasons, farms, ranches, and other firms employing agricultural workers were generally exempt from these laws. The outcry against the horrible working conditions of migratory fieldworkers began to be sounded in the 1930s with Carey McWilliams's *Factories in the Fields* (1939). It continued with Edward R. Murrow's broadcast *Harvest of Shame* over Thanksgiving weekend of 1959 and with Caesar Chavez's attempts to organize California farmworkers in the 1960s (Thompson 2015). These issues are very much with us today. The categories of mainstream consequentialist and deontological ethics are well equipped for articulating and debating the ethical issues associated with agricultural labor and the inequalities and abuses that are associated with race and gender among farmworkers. If workers in manufacturing or retail are entitled to protections or procedural rights on the basis of consequentialist or deontological considerations, there is no reason why similar questions should not be raised about workers in agriculture.

Environmental impacts from agriculture provide another and perhaps even more obvious and striking example of issues where a generic set of philosophical concepts can be applied usefully. Rachel Carson's book *Silent Spring* documented the impact of insecticide use on songbirds and aquatic species, animals that were not the intended target of farmers who were using these chemicals to protect their crops from agricultural pests. In the intervening years, we have come to a fuller appreciation of the toll that agricultural chemical use can have for human health and for all "non-target" species. More generally, agriculture itself is the willful removal of natural ecosystems and their summary replacement by human-managed cropping and livestock production systems that generally disrupt the habitat for whatever species may have occupied the niches destroyed by agricultural conversion. Nutrients from CAFOs and from synthetic fertilizers can pollute water supplies and cause dramatic changes in downstream ecosystems. The list of potential environmental impacts from agriculture is long, and it is arguable that some of the most effective ethical concepts for describing and critiquing the environmental

damage caused by agriculture are derived from norms and patterns of analysis that were originally applied to industrial pollution from manufacturing or mining. There is, again, a rich sense in which the social ethics developed for a generic evaluation of various sectors in the industrial economy is quite well adapted to the environmental impact of agriculture (Thompson 2017).

There is, in short, no sense in which this chapter should be read as dismissing the importance and general applicability of ethical critiques that draw upon what I have called “the industrial philosophy of agriculture.” The industrial philosophy of agriculture just *is* the application of consequentialist and deontological frameworks that arose during the early years of the Industrial Revolution to problems that arise within or that are caused by existing methods of agricultural production. These are absolutely crucial topics, and they make up the largest part of what is now being called “food ethics.” But the theorists who developed these approaches to moral theory during the early years of industrialization also insisted upon their universality. Ever since Kant and Bentham, advocates of consequentialist and deontological theories have presumed—nay, demanded—that they articulate the basis for everything that is normatively significant about transactions and relationships throughout industrial societies. Contrary to this claim, I do offer agrarian philosophies both as a historical and cultural explanation of why agriculture might have been exempted from ethical scrutiny in the past, and as amendments to the kind of considerations that should be included in the food ethics discussions of the present.

AGRARIAN PHILOSOPHY: THE HOUSEHOLD FARM

Mainstream ethics provides a number of reasons to support small, household farmers whenever their interests clash with those of large landowners or multinational corporations. One might do so on grounds of economic equality, or one might take a more generally suspicious view of economically powerful actors or the concentration of wealth or capital. History supplies other arguments. Agriculture can be organized in a number of different ways, and the Greco-Roman world was distinctive in comparison to other civilizations in the Fertile Crescent for the dominance of household farms. Greek and Roman writers were aware of this difference and a certain strand of agrarian argument is written into the subtext of many doctrines that philosophers still take to be emblematic of their discipline.

Succinctly, agricultural systems of the Ancient world could be classified into three types. Early empires (notably Egypt) had been built on a highly productive system that deployed slave labor to tend extensive fields that were owned by the sovereign and centrally managed. In the case of Egypt, this unfree workforce was also deployed to build and manage an extended infrastructure for containing the annual flood of the Nile

River. In contrast, the agriculture of the Peloponnesian Peninsula relied upon relatively small production units controlled and managed by the head of the household. Although both systems relied upon the labor of slaves, the nature of work differed significantly. The Greek (and later Roman) farm was a mix of crops—grains, trees, and vines punctuated by livestock—that took full advantage of the topography and climate, while demanding mastery of dissimilar skills suited to distinct crops and seasons of the year. In the Egyptian system, practical knowledge was limited to members of the priesthood and a few overseers. The third type of system was true subsistence farming found on the margins of the ancient world. In general, it was not productive enough to sustain the division of labor needed to support the military and economic institutions of civilization (Mazoyer and Roudart 2006).

The Greek householders (the *hoi mesoi*) were the citizens of the city-states. Their common interest in defense of their lands and in maintaining the craft industries (wheelwrights, blacksmiths, etc.) that were needed to support their farms was the basis of a polis, understood here as the shared values that form the foundation for political life. Classicist Victor Davis Hanson argues that articulation and defense of this agrarian-based polis is the back story for significant components of Hellenistic philosophy (Hanson 1995). Indeed, one can see the argument being made in relatively explicit fashion in Aristotle's *Politics*, where the household is described as the model for the state, and the *hoi mesoi* are identified as the most valuable citizens. A society built on this model is superior because the interests and daily practice of the *hoi mesoi* are naturally consonant with that of polis, the basis of community life. Because their farms are inherently tied to a particular geographic location, they develop a loyalty to the polis as a place. Because their investment in tree and vine crops requires multigenerational stability, they exhibit both a loyalty and a proficiency in the arts of defense and citizenship that mercenaries and those whose professions can be relocated will never have. Hanson argues that of all the city-states, Athens' development of sea power created a class of traders whose economic interests were not so closely tied to the land, leading to the political upheaval that we associate with the time of Socrates and the eventual clash with the more firmly agrarian Sparta (Hanson 1995).

Aristotle also clearly thought that the *hoi mesoi* were superior to true subsistence farmers. While very small farmers might have interests quite consonant with forming polis, their sheer poverty and their bondage to the hard, repetitious physical labor of farming meant that they seldom had time to attain the literacy and acumen associated with a Greek ideal of citizenship. Hence, when Greek philosophers praise farming (most evident in Xenophon's *Oeconomicus*), they are not necessarily recommending that one should get one's hands in the dirt. Aristotle's claim that virtue requires a certain level of wealth reflects a version of agrarian values that stresses the importance of leisure time that can be devoted to philosophy. It is thus important to see that household agrarianism is not simply a blanket praise of farmer's virtue, but is more properly understood as a philosophy that takes agriculture to be especially significant for larger questions in social ethics. And it is only certain kinds of agricultural systems that are going to suffice.

AGRARIAN POLITICAL ECONOMY

Greek farms were relatively small, relying on a slave labor force that rarely exceeded single digits. Roman farms were often much larger, and the heads of household were correspondingly much wealthier. European history continued this trend, as a manorial system of peasants farming lands held by titled aristocrats became commonplace. Under this system, the idea that landownership would bind the nobility's personal and security interests to that of the larger polity continued. Ownership of land became a requirement for citizenship and participation in governance. At the same time, systems of land tenure were diverse, and some extended rights of occupancy, use, and limited abilities to transfer said rights through inheritance and exchange to commoners. English politics of the sixteenth and seventeenth century were especially influenced by debates over land tenure, and the evolution of "possessive individualism"—the philosophy that C. B. Macpherson (1962) saw as the precursor to capitalism and the form of ethics we associate with Bentham and Kant—was strongly shaped by agrarian ideals.

A succinct summary of the role that agrarian ideas played in the evolution of European political theory would stress three themes. First, as European societies become more diverse, political economists began to recognize the production of food as an activity having special significance. Second, the physiocrat tradition viewed agriculture as having a unique tie to the creation of wealth. Finally, as already suggested, the Greco-Roman emphasis on the farm household and its place-based loyalty was transformed into a criterion for citizenship and the distribution of political power. In contrast to many contemporary economic analyses that see no problem with a global trade in food commodities, early political economists argued that a nation's farming population was a primary guarantor of sovereignty and a source of resistance to foreign powers. English political economist James Harrington (1611–1677) valued farmers not for their civic virtue but for their obvious role in securing the nation's food supply. Harrington was especially solicitous of the need for secure lines of supply to a nation's military forces, recognizing that for the peasant farmer and the landed lord alike, sheer proximity to the site of production would be adequate to assure access to food. As the division of labor was increased, meeting a nation's food needs through trade came to be seen as more acceptable, and arguments for and against reform of the English Corn Laws became a topic for the generation that included David Ricardo and John Stuart Mill (Montmarquet 1989).

The French physiocrat school of political economy is remembered for its advocacy of *laissez-faire*, but it also advocated the doctrine that only agriculture could actually produce wealth. Manufacturing was seen as simply rearranging materials, while farming could seemingly bring forth new goods from the very bowels of the earth. Although this latter doctrine holds little allure for present-day economics, the physiocrats were influential in their day for advocating national policies to promote the development of agriculture and to give priority to farming over every other form of economic activity. As

such, physiocrats endorsed political institutions and policies that favored farm interests over industrialists and the proletariat that supplied a workforce for their factories. The importance of protecting private property from all forms of interference (including by the state) had its origins in the curious idea that only farms and farming could produce genuine wealth for national accounts (Vardi 2012).

In a vague and generalized way, these doctrines from political economy merged with older political ideas handed down from the Greeks and derived from figures such as Machiavelli and Montesquieu who had written on the Roman Republic. In this latter tradition, the decline of the Roman Empire was sometimes traced to a series of ill-considered changes that separated the power to make policy from the source of tax revenue, which was, of course, the latifundia (e.g., farms) controlled by the Roman aristocracy. The income from these lands financed the complex patronage system that in turn provided the basis for Roman political life. Political reforms created new urban-based power blocks in Roman society that did not contribute to the fiscal underpinnings of the city (neither did they feed people). The upshot was that agrarian ideas stressing the importance of private property, the need for power to reside with an educated and moderate propertied class, and the view that agriculture was more conducive to virtue than manufacturing or trade provided a rationale for resisting democracy or anything that would empower the working class. The argument becomes a key basis for the view that landed aristocrats are the most reliable source of political stability. Many contemporary readers are still impressed by the seemingly inherent conservatism of agrarian reasoning (see Carlson 2000; Murphy 2001).

Thomas Jefferson's agrarianism turned much of this reasoning on its head. Jeffersonian agrarianism accepted many of the agrarian premises (though there is little evidence that he was strongly influenced by the physiocrats' view that land is the sole source of wealth). Yet Jefferson argued that in the Americas, where ownership and control of land was broadly distributed, these very ideas could be martialled in support of democracy. Jeffersonian agrarianism is too often seen as a romantic attachment to a bucolic past, but in the context of the American Revolution, where manufacturers and traders were much more likely to abandon the revolutionary cause than farmers, the idea that farmers' interests align more tightly with those of the polity was very clear. Jefferson advocated an agrarian democracy because he felt that farmers were "the best" citizens, and, as he wrote, "*mobs* of great cities add just so much to support of pure government as *sores* do to the strength of the human body" (Jefferson 1783).

American agrarianism took a further turn during the administration of Abraham Lincoln. On the one hand, abolitionists were appealing to moral arguments derived directly from Bentham and Kant, while defenders of slavery tended to recite agrarian arguments in its defense. Slavery was thought essential for the characteristically southern form of agriculture, which was in turn defended as a bulwark of political stability and the font of culture (see Smith 2003). There is thus an important sense in which the Emancipation Proclamation (1863) and the Thirteenth Amendment (1864) represent the emergence of an industrial philosophy of agriculture in the United States. No longer would the preeminence and political necessities associated with farming be permitted

to override the patent suffering and abrogation of human dignity inherent in race slavery. On the other hand, in 1862 Lincoln signed both the Morrill Act creating the public university system dedicated in significant measure to the promotion of agricultural science and the Homestead Act making Federal lands available for agricultural settlement. In the same year, he created the Department of Agriculture, also dedicated to furthering the interests of farmers. Lincoln articulated the rationale for these actions in starkly agrarian terms, equating farming interests with those of “the people” and reinforcing the Jeffersonian vision of an America founded upon the natural marriage between the interests created by land-based economic activity and a broadly distributed pattern of ownership (Lincoln 1859).

To summarize, the Greek *polis* and the corresponding notion of citizenship rests on the agrarian foundation of the *hoi mesoi*. Imperial agricultures (Egypt and China) produce only subjects, not citizens. Other forms of agrarianism emphasize the tight link between feeding the populace and military stability (Harrington), the tight link between farming and the material production of wealth (the physiocrats) and the tight link between those whose wealth comes from the land and political stability (mainstream political economy prior to the Industrial Revolution). To these three kinds of agrarianism, Jefferson and Lincoln added the view that when control of the land is broadly distributed, agrarian thinking supports democracy. The new political economy launched by the Scottish Enlightenment was, in an important sense, still grounded in these ideas, but Hume and Smith believed that the Industrial Revolution was creating opportunities that could not be fully exploited by a moral and legal system in which legal rights and moral sentiments were so permanently tied to a particular plot of land. Thus, the idea of property and the right to property had to be freed from its agrarian moorings in order to facilitate the growth of manufacturing and gains from trade. This in turn required a new conceptualization of labor as an alienable good, also subject to the terms of barter, rather than as a set of duties fixed by demands of a particular soil and climate (in bondage to a particular lord whose interests were defined by that soil and climate). The actual political changes that were needed to bring about this “great transformation” away from agrarian ideals took more than a century (Polanyi 1944).

CONTEMPORARY AGRARIANISM

I see three reasons why scholars of food ethics should be attentive to agrarian views. The first may be a personal prejudice: my training emphasized the history of philosophy, and I cannot bring myself to imagine true philosophical thought in the absence of coming to terms with the texts of Aristotle, Locke, and others. The history of philosophy cannot, in my opinion, be read accurately without an understanding of the role played by agrarian values. If food ethics has something to contribute more broadly to the discipline of philosophy as I understand it, it must surely begin by noting that contemporary scholars’ lack of familiarity with the tradition of agrarian argument contributes to a limited

understanding of the discipline itself. However, I realize that this is a minority view, and it is in respect to two other themes that food ethics, understood as an inquiry into the full consequences of eating one way rather than another, takes on its fuller significance.

The second reason is that echoes of agrarian argument forms continue to be heard in contemporary food ethics. Michael Pollan has promoted Wendell Berry's aphorism, "Eating is an agricultural act," but what did Berry mean by that? Kimberley Smith's *Wendell Berry and the Agrarian Tradition: A Common Grace* provides an overview of agrarian themes in American political thought including both Jeffersonian democracy and the less attractive aristocratic defense of slavery on agrarian grounds that was mounted by Jefferson's contemporary (and political ally) John Taylor of Caroline. Smith argues that Berry's significant engagement with debates over race and slavery (not fully appreciated by many readers) serves to significantly constrain some of the politically conservative elements of the agrarian tradition. Furthermore, Smith argues that Berry is the first agrarian to bring ecological themes explicitly into the agrarian lexicon. For Berry, agrarianism is an ecological worldview that emphasizes connectedness in every dimension. Not only are traditional farmers socially connected in a manner consistent with the way that Aristotle might have suggested for the *hoi mesoi*, they are attentive to the seasons, to the soil, and to the full sense in which they are both dependent on their encompassing world and at the same time responsible to it. Berry's 1977 book *The Unsettling of America* was one of the first critiques to discuss the disconnectedness of modern "scientific" agriculture and to see the tight marriage between industrial farming and commodity markets as an ecological and political disaster (Smith 2003).

Berry's environmentalist agrarianism has been taken up by advocates of reform in agricultural practice. Wes Jackson interprets an ecologically sensitive approach to farming as the route to pursuing Thoreau's goal of "becoming native to our place." It is through farmers' attentiveness to the structure and vulnerabilities of the specific, place-bound ecosystem in which they farm that human practice can resolve into cultures that respect and even amplify the potential inherent within the natural world. It is through work, rather than leisure, that moral character is formed, hence it is the person who works within and with nature that satisfies the demands of environmental virtue (Jackson 1994). Agrarian arguments were also rehearsed in another volume with a title echoing Thoreau, *Meeting the Expectations of the Land* (1984), co-edited by Jackson, Berry, and Bruce Coleman. Here, essays advocating a more ecological approach to farming as well as attention to the impact of agricultural chemicals on farmworkers were advanced through ethical arguments that appealed to a declining (if not lost) virtue of agricultural stewardship, rather than drawing upon uncompensated harms or violations of human (or nonhuman) rights (Jackson, Berry, and Coleman 1984). Similarly explicit appeals to agrarianism can be found in Eric Freyfogle's *The New Agrarianism: Land, Culture and Community* (2001) and Norman Wirzba's *The Essential Agrarian Reader* (2003).

There are other authors who appeal to agrarian themes without also evoking the term "agrarianism." The role of the farmer is stressed by Raymond Boisvert and Lisa Heldke in their book *Philosophers at Table*. Consistent with the discussion, Boisvert and Heldke

argue that late modern figures such as Bentham, Kant, and Hegel adopted a “spectator” standpoint toward the evaluative process. Boisvert and Heldke are as keen to stress aesthetics as ethics. The aesthetic practices of high culture—a visit to the museum or a concert—are modeled on leisure activities. The value theory of late eighteenth and early twentieth century came to stress a disinterested judgmental practice as a way to control the sway of passion. Boisvert and Heldke see the specter of Cartesian dualism in these theories, where disembodied minds attempt to curb the potential for animal spirits. They recommend the farmer over the spectator as the model for aesthetic and moral judgment. It is the farmer’s active engagement with material practice that gives this archetype its generative force for value theory (Boisvert and Heldke 2016). Boisvert and Heldke’s use of virtue talk differs from that of contemporary theorists who emphasize dispositional attitudes. In appealing to the farmer as a cultural archetype, they suggest that our moral and aesthetic imaginations can be piqued by our implicit understanding of the way that an archetypal figure would respond (hence be response-able) in specific situations. The mere spectator has been stripped of the embedded understandings that reside at the root of responsibility in this situated sense. In contrast, known individuals (an admired mentor or family member), famous personages (Jesus, George Washington), and even fictional characters (Harry Potter or Jane Austen’s Elizabeth Bennett) can inspire a moral and aesthetic response from us when we ask, “What would X do?” It is doubtful that Boisvert and Heldke would view their approach as a form of agrarianism, yet their use of “the farmer” as a generative archetype for eliciting a normative standpoint indicates how agrarian ideals might challenge mainstream forms of consequential or deontological moral theory.

Finally, I see agrarianism as a way to link systems and sustainability. Drawing upon the ideas of Berry and Jackson, I have interpreted the way that Jefferson or Aristotle link the virtue of citizenship to agrarian ideas as a way to emphasize both the difficulty and also the importance of taking a systems perspective. The threats to Athens or Rome that were associated with the rise of a trading mentality or military imperialism arose because the people advocating these thrusts could not grasp the sense in which their own interests depended on a prior commitment to polis, to protecting the land and soil-based interests that were the source of these cities’ initial wealth and sense of common purpose. The *hoi mesoi* represent a crucial political form because the management of their farms lends itself to a systems mentality. The complementarity between olive trees and grapevines, on the one hand, and the grains growing in the lower valleys becomes expressed as a palpable household rhythm. It defines what must be done when and where, and orders their lives through seasonal cycles at the same time that the scale of the household farm allows these tasks to be performed by a relatively small and autochthonous family group. Except that their autochthony is visibly constrained by their dependence on craftsmen and by their need for a common defense against invaders. The household farmer represented by Xenophon’s Ischomachus can see how the systemic integrity of his household is integrated within the larger system of the polis.

In our present era, it is crucial to add dependence upon the integrity of broader ecosystem processes, as well. My own work has stressed the tension between

conceptualizations of sustainability that draw upon the idea of sustainable development and those that emphasize the resilience or adaptiveness of systems (be they biological, social, or some combination of the two). I have argued that attention to agrarian philosophies can alert us to the way that systems thinking has been given political salience in the past, and I note a series of figures (including Liberty Hyde Bailey and Aldo Leopold) who emphasized the foundational importance of agricultural practice during more recent times (Thompson 2010). The chief contemporary spokespersons for the system perspective have been ecologists. It may thus be significant that recent work in conservation biology has begun to emphasize the agrarian values of indigenous communities and has argued that these farming peoples possess an understanding of the systems perspective that has been extremely difficult to cultivate among more highly educated Westerners (Rozzi 2015).

When Berry says that eating is an agricultural act, he is in fact opening the door to a number of diverse ways in which farms and farming might stimulate a deep and highly situated form of moral reflection. This is not to say that those who see the enactment of food ethics primarily through consumption practices that resist the industrial have it altogether wrong. Cage-free eggs and free-trade coffee have their place. Yet Berry is also calling us to appreciate how agrarian values can enrich our moral ontology and push us toward a more integrated systems perspective. At a minimum, it is to say that food ethics is much more than hoping to save the world with better shopping. In the end, the best reasons to promote consciousness-raising food practices, from vegetarianism and localism to community-supported agriculture and fair trade may have little to do with the causal connection between our food purchases and the larger supply chain. They may be better justified as first steps toward broadening our ethical horizons in a manner that is not only more sensitive to the philosophies of the past but more generative of response for the challenges of the future.

CONCLUSION

In concluding, I note again that the industrial philosophy of agriculture, the ethical approach that sees agriculture as just another sector in complex industrial societies, brings absolutely crucial resources to the table. There is very little in the classical agrarian mindset that would advocate for a minimum wage for farm laborers or fast-food workers. Indeed, there is little basis on which one might advocate for a right to food. As noted, agrarian arguments were advanced in defense of race slavery, arguably the least defensible institution ever countenanced by human civilization. At the same time, however, I have tried to indicate briefly how contemporary authors are trying to save what was wise about agrarian values, while also adding ecological themes that were never explicitly argued by classical advocates of agrarian philosophy. The unifying theme is that there is something special, something unique, and something normatively generative about agriculture and farming. It is precisely this element that is lost

when ethical theories that depend upon an ideal spectator are applied in the typical manner.

This is not to say that the themes I have associated with the agrarian worldview cannot be incorporated into consequentialist or deontological perspectives. In a similar vein, contemporary movements such as particularism, virtue ethics, and even feminist theory clearly do pick up themes that would have once been associated with an agrarian perspective, while shedding any sense that agriculture and farming as such have much to contribute. Perhaps the one thing that does distinguish farming from these perspectives is that for the time being, at least, this is how we get our food. And food is manifestly different from other goods produced by other sectors in the industrial economy. Yet there are thrusts on the horizon that would end this linkage, while the arguments for synthetic meat and climate-controlled agriculture are being advanced on moral grounds (Welin, Gold, and Berlin 2012; Dey and Pinel 2015). If there truly is anything special about farming, the time to consider that question is now.

BIBLIOGRAPHY

- Berry, Wendell. 1977. *The Unsettling of America: Culture and Agriculture*. San Francisco, CA: Sierra Club Books.
- Boisvert, Raymond D., and Lisa Heldke. 2016. *Philosophers at Table: On Food and Being Human*. London: Reaktion Books.
- Carlson, Alan. 2000. *The New Agrarian Mind: The Movement toward Decentralist Thought in 20th Century America*. New Brunswick, NJ: Transaction Press.
- Dey, Anind, and Florian Pinel. 2015. "Pervasive Food." *IEEE Pervasive Computing* 4:22–23.
- Freyfogle, Eric, ed. 2001. *The New Agrarianism: Land, Culture and Community*. Washington, DC: Island Press.
- Hanson, Victor Davis. 1995. *The Other Greeks: The Family Farm and the Agrarian Roots of Western Civilization*. Berkeley and Los Angeles: University of California Press.
- Jackson, Wes. 1994. *Becoming Native to this Place*. Lexington: University Press of Kentucky.
- Jackson, Wes, Wendell Berry, and Bruce Coleman. 1984. *Meeting the Expectations of the Land*. San Francisco, CA: North Point Press.
- Jefferson, Thomas. 1783 [1995]. *Notes on the State of Virginia*, edited with an introduction and notes by William Peden. Chapel Hill: University of North Carolina Press.
- Lincoln, Abraham. 1859. Speech before the Wisconsin Agricultural Society. <http://www.abrahamlincolnonline.org/lincoln/speeches/fair.htm>.
- Macpherson, C. B. 1962. *The Political Theory of Possessive Individualism: Hobbes to Locke*. Oxford: Clarendon Press.
- Mazoyer, Marcel, and Lawrence Roudart. 2006. *A History of World Agriculture: From the Neolithic Age to the Current Crisis*. Translated by James H. Membrez. New York: Monthly Review Press.
- McWilliams, Carey. 1939. *Factories in the Fields: The Story of Migratory Farm Labor in California*. Boston: Little Brown & Co.
- Montmarquet, James A. 1989. *The Idea of Agrarianism: From Hunter-Gatherer to Agrarian Radical in Western Culture*. Moscow: University of Idaho Press.

- Murphy, Paul V. 2001. *The Rebuke of History: The Southern Agrarians and American Conservative Thought*. Chapel Hill: University of North Carolina Press.
- Polanyi, Karl. 1944. *The Great Transformation: The Political and Economic Origins of Our Time*. Boston, MA: Beacon Press.
- Rozzi, Ricardo. 2015. "Earth Stewardship and the Biocultural Ethic: Latin American Perspectives," in *Earth Stewardship: Linking Ecology and Ethics in Theory and Practice*, edited by R. Rozzi, F. S. Chapin III, J. B. Callicott, S. T. A. Pickett, M. E. Power, J. J. Armesto, and R. H. May Jr., 87–112. Dordrecht: Springer.
- Smith, Adam. 1759. *The Theory of Moral Sentiments*. Edinburgh: A. Kincaid and J. Bell.
- Smith, Kimberley. 2003. *Wendell Berry and the Agrarian Tradition: A Common Grace*. Lawrence, KS: University Press of Kansas.
- Thompson, E. P. 1971. "The Moral Economy of the English Crowd in the Eighteenth Century." *Past and Present* 50:76–136.
- Thompson, Paul B. 2010. *The Agrarian Vision: Sustainability and Environmental Ethics*. Lexington: University Press of Kentucky.
- . 2015. *From Field to Fork: Food Ethics for Everyone*. New York: Oxford University Press.
- . 2017. *The Spirit of the Soil: Agriculture and Environmental Ethics*. 2nd ed. New York: Routledge.
- Vardi, Liana. 2012. *The Physiocrats and the World of the Enlightenment*. Cambridge: Cambridge University Press.
- Welin, Stellan, Julie Gold, and Johanna Berlin. 2012. "In Vitro Meat: What Are the Moral Issues," in *The Philosophy of Food*, edited by D. Kaplan, 292–304. Berkeley and Los Angeles: University of California Press.
- Wirzba, Norman, ed. 2003. *The Essential Agrarianism Reader*. Lexington: University Press of Kentucky.

CHAPTER 4

FOOD, THE ENVIRONMENT, AND GLOBAL JUSTICE

MARK BUDOLFSON

IN order to eat a single meal, would you dump thousands of gallons of water down the drain, dump pollutants into our rivers, kill the creatures that inhabit our ecosystems, and harm other human beings?

Of course, you wouldn't. But an average meal in a developed nation typically has exactly that kind of extensive harm footprint, given the resources that are used to produce it and other consequences of its production. The "harm footprint" of a unit of a food is the measurement of the amount of harm that the food system causes in producing each unit of that food on average. (See the chart later in this essay for quantification and comparison of the harm footprints of different foods.)

So, how should we take these different kinds of harms into proper account, including environmental harms, as well as the needs of humans? And in light of that proper accounting, what is it best to do about the disturbingly large harm footprint that is associated with our food? What is the best improved food system for us to aim for with policy?

To some, the answer to this question is simple: we should promote a food system that simply minimizes each and every one of these negative impacts. But if this simple answer is understood to mean unconstrained minimization of all of these negative impacts, it has the striking implication that we should generally stop using the tools of contemporary agriculture altogether, even if this means that we cannot then produce enough food for ourselves—since choosing to produce food using the tools of contemporary agriculture will generally have negative impacts, particularly on the environment.

Most people would reject this unconstrained minimization view once it is noted that it could have this self-sacrificing implication. However, not everyone rejects such an answer, for example, many deep ecologists would say, "Yes, that is exactly what is implied by the values I endorse, which imply unconstrained minimization of negative impacts