BOOK REVIEW


Someone’s conversion experiences, or changes of mind on important issues, are important to chronicle if the one changing is as talented a philosopher as Gary Comstock. In this volume Comstock presents four previously-published essays, followed by two new essays. In the first four chapters Comstock lays out his arguments against, respectively, use of bovine growth hormone, herbicide-resistant plants, transgenic animals, and agricultural biotechnology. In the last two chapters he significantly revises the opinions defended in the earlier four articles and essentially supports agricultural biotechnology and challenges some of the arguments presented in the first four chapters.

Pioneering scholarship in the ethics of agricultural biotechnology, Comstock’s volume has much to recommend it. It is eminently readable and interesting, in part because the philosophical analyses are intertwined with Comstock’s own narrative experiences of his family’s Iowa farms. The volume also has a wealth of important factual and scientific information, like that about the demise of the family farm which, Comstock admits, is already a fait accompli. Its many arguments, for example, for a reformist reading of animal rights, and for the thesis that the problem with modern farming is oligopoly, not agricultural biotechnology, are important and insightful. Even if we disagree with parts of his arguments, such as that because many adult humans are not autonomous, we ought not deny rights of animals on grounds of their failure to be autonomous. Comstock’s arguments are always thought-provoking, clear, and well thought out. His examples are both to the point and indicative of the depth of Comstock’s experience and knowledge.

One particularly strong point in his arguments is Comstock’s insightful analysis of why the policy implications of the Precautionary Principle are incoherent. The substance of the Precautionary Principle is that lack of full scientific certainty should not be used as a reason for postponing cost-effective measures to prevent environmental degradation. Comstock effectively shows that, despite the potential heuristic value of the principle, it nevertheless commits us to developing genetically manipulated crops and not to developing genetically manipulated crops. Comstock sees the source of this incoherence as deriving from objections to agricultural biotechnology based on unspecified claims about future disasters that agricultural biotechnology might cause. He
rejects such objections to agricultural biotechnology as based on a simplistic objection that would require rejecting all technology, and he argues instead for cultural and political ways to mitigate the risks imposed by agricultural biotechnology. This argumentative strategy is excellent and has important consequences for the way that people argue about technology in general. Perhaps another source of the incoherence in the Precautionary Principle is the fact that people do not recognize that it is a *prima facie* principle, not an *ultima facie* principle. Comstock should be applauded for recognizing and arguing that the Precautionary Principle is too general to be of much use in effective policymaking. However, we might wonder if, suitably revised and supplemented with case-specific scientific and economic information, the Precautionary Principle might be of more help in providing something like a list of necessary and sufficient conditions under which we might use it and we might not use it. It would have been interesting to see Comstock address a more sophisticated version of the principle and then examine its consequences for agricultural biotechnology.

Another excellent point in Comstock’s analysis is his nuanced and scientifically accurate argument that, because ecocentrism faces significant scientific and ethical problems, we ought not argue that biotechnology causes us to disrespect nature. The scientific problem Comstock identifies with ecocentrism is that ecological theory is not developed enough, not predictive enough, to ground an ecocentric ethics. The ethical problem is that such an ethics could lead to environmental facism, to valuing nature at the expense of people. Comstock’s analysis is important not only because he recognizes, as many environmental ethicists do not, that ecological theory is not as neat and helpful as they wish it to be, but also because he understands the depth of Tom Regan’s charge of ecofacism, as leveled against ecocentrists. In his careful discussion of both these points, Comstock succeeds where many ethicists run aground. Here again, it would have been interesting to see if other forms of ecocentrism, ones not committed to biotic equality, were so easy to defeat as the ones that are the object of Comstock’s analyses. A central problem with ecocentrism is not with it, as such, but with one common interpretation of it, the naïve proposition of biotic equality – treating all species as equally valuable, whether they are human or nonhuman. After all, if we defended a version of ecocentrism, according to which we have priority principles, lexicographically ordered, so that we respect basic or strong human rights, then ecological welfare, and finally weak human rights, such as those to property, such an ecocentrism likely would be more defensible. It would be ecocentric in the sense that, although it placed strong human rights ahead of biotic welfare, it placed biotic welfare ahead of weak human rights. Yet it would not be open to the charge of ecofacism because it placed strong human rights ahead of ecological welfare.

If there are flaws in the volume they center on Comstock’s political and scientific naivete. With respect to the charge of political naivete, Comstock
claims that we need not worry about abuses of agricultural biotechnology, because the regulators are somewhat independent of the industry, the regulators choose their experts well, and United States politics is competitive (pp. 232 – 233). Each of these points, however, has been challenged by an extensive body of legal evidence that indicates that regulatory agencies and governments frequently have been captured by vested interests. Comstock seems unaware of this literature, and he does not address either the evidence it presents or the frequent arguments for the degree to which the United States political economy is becoming more oligopolistic and less democratic. With respect to scientific naivete, Comstock seems to fall victim to the assumption that the absence of evidence for a threat is the same thing as the evidence of the absence of a threat. It is not. He says, for example: “it seems that the mantra of the biotech industry has proven itself to be true: There have to date been no verified reports of virulent GM cells, organisms, viruses, or plant or animal foods having harmed any consumer” (p. 226). However, Comstock fails to note that independent extensive tests, including tests of molecular effects, have not been done by investigators outside the biotechnology industry, and have not been done at the ecosystem and food-chain levels. Hence the absence of verified information about such hazards is not surprising. We might as well search for an electron with a flashlight, then claim an absence of verified reports confirming the existence of electrons. To detect harms of biotechnology, we must use the right tests. If we do not, then we have merely an appeal to ignorance in defending our claims about biotechnology. The problems of political and scientific naivete, have the potential to limit Comstock’s effectiveness as a Socratic gadfly, as a social critic, and it is obvious that no areas of technology can forego such social criticism without risking great harm. Comstock is right, that the problems of agricultural biotechnology are political, not technological, and he is right that they are problems of modern farming, not technology. Given this general realization of the political significance of the problems he addresses, it would have been good if Comstock had been less politically and scientifically naive in discussing regulation of biotechnology and the claims of industry biotechnologists.

For all the reasons already given, including its readability, its important arguments, and its wealth of factual material, this book is a must-read for anyone interested in practical ethics. Comstock is one of the two best people writing in this area, and no one ought to ignore his work.

Kristin Shrader-Frechette
Department of Philosophy
University of Notre Dame
Notre Dame, IN 46556
USA