

Progress in Bioethics: Science, Policy, and Politics

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BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

closes with a manifesto for community-based conservation. These solutions are diverse, but all are advocated with an unspoken message: The answer to energy development in the West is not *no* but rather *where*.

The hierarchy of “avoid, minimize, offset” is commonly used to mitigate development impacts. However, determining where to avoid and how much to mitigate is a task fraught with complication. *Energy Development and Wildlife Conservation* offers an approach called *energy by design*, which blends landscape conservation planning with the mitigation hierarchy. Landscape conservation planning sets explicit conservation goals for habitat area and population sizes and occurrences, based on what is necessary to maintain viable wildlife populations and natural communities. According to energy by design, when development is incompatible with achieving or maintaining these explicit goals, development should be avoided. This metric helps provide a framework for implementing the “avoid” step of the mitigation hierarchy. An example of this approach is provided in the chapter that forecasts oil and gas development’s likely impact on the sage grouse, which, depending on the development scenario, is likely to result in a 7-percent to 19-percent population decline. Protecting key strongholds of the sage grouse population is necessary in order to avert population declines and to prevent a full listing of the species under the Endangered Species Act and will require shifting development away from these core areas.

Conservation success requires the implementation of the scientific tools necessary to protect wildlife in the face of energy development, and the final chapters of this book on policy- and community-based conservation suggest ways to do this. To begin, changes in how the National Environmental Protection Act is implemented could “provide the much-needed regulatory home for adaptive management” (p. 210). Encouragingly, the book argues that many of these recommended changes

could be brought about through rulemaking and without the need for legislative action. The argument for community-based conservation is particularly strong: “The real key to implementing lasting conservation is in working with people to maintain rural ways of life that are compatible with biological goals” (p. 211). The goal of community inclusion demands a broad skill set, and this book provides a helpful list of 12 key traits of community-based conservation practitioners.

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A concluding chapter to tie together the work presented in the book would have been helpful; in particular, an explanation of a game plan for how to gain momentum in the implementation process of these science-based approaches to conservation would have been welcome. Otherwise, *Energy Development and Wildlife Conservation* describes the necessary steps for maintaining healthy wildlife populations in the face of rapid and expansive energy development. The authors herald, “With one resounding voice, the conservation community needs to indicate which landscapes are most valuable to wildlife if they expect their interests to be heard. To date, we have no such game plan” (p. 229). This book presents the outlines of such a plan. Will society use it to protect our wildlife?

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EMPOWERING THE VOICE ON THE LEFT: DEFINING PROGRESSIVE BIOETHICS

Progress in Bioethics: Science, Policy, and Politics. Jonathan D. Moreno and Sam Berger, eds. MIT Press, 2010. 308 pp., illus. \$30.00 (ISBN 9780262134880 cloth).

Jonathan D. Moreno, a senior fellow at the Center for American Progress (CAP) and professor at the University of Pennsylvania’s Center for Bioethics, and Sam Berger, JD and former fellow at the CAP, have edited a thoughtful collection of essays entitled *Progress in Bioethics: Science, Policy, and Politics*. The purpose of Moreno and Berger’s volume is twofold: First, the collection is intended to address the issue of defining progressive bioethics; second, it is designed to identify the key principles and values that progressive bioethicists endorse.

As the field of bioethics has become increasingly more politicized, conservative values have increasingly been a dominant force in the public arena—perhaps because their views are vociferously expressed and, in many cases, unified. This has not been the case, however, for more liberal perspectives in bioethics, apart from those belonging to the Academy and the annual conferences held by professional scientific organizations—two sorts of venues that are, arguably, some distance from the public eye. *Progress in Bioethics* contributes to the greater bioethical discussion by spelling out the principles that guide progressive thinking on bioethical issues. I think the hope of its editors is that this pursuit of clarity will be instrumental in securing a place for progressive bioethicists to have greater presence in public policy

formation. The book also provides an alternative perspective for thinking through bioethical issues, which may appeal to a morally pluralistic society.

The book is divided into five parts. Part one is aimed at clarifying the values that unify progressive bioethics, values that endorse what Moreno and Berger have termed a *critical optimism* with respect to biotechnology. Progressives embrace the possibility of science improving the human condition and reducing suffering, but they still remain cognizant of the reality that such technologies can also cause harm. Relatedly, science appeals to progressive bioethicists in terms of their reliance on the *actual* science in the development of robust, ethical argumentation—that is, good ethics first start with good facts.

It makes sense, then, that progressives are pragmatically oriented to bioethical problems of the actual world, rather than those of some imagined world of the future. Progressives are more inclined to spend their time deliberating, for example, on how conscientious refusals may impinge individuals' autonomy (autonomy being an integral value of progressives) as opposed to being overly concerned with designer children of the future.

Equality and justice are also key values of progressives. Contributor Richard Lempert writes that "morality requires that people be treated more or less equally, particularly with fundamental goods such as health care. Progressives are wary of distinctions in treatment, research, and the availability of health services that disadvantage the less powerful, particularly minorities and women" (p. 33).

In part two of *Progress in Bioethics*, R. Alta Charo provides a framework for understanding the fundamental division between conservative and progressive bioethics. Charo argues that conservatives have an aversion to science's being used to improve the human condition, coupled with an affinity for their morality to be enforced by government, whereas progressives welcome scientific advances

and find legislation of morality to be problematic. Kathryn Hinsch traces the development and rise of conservative bioethics to a prominent presence in politics and explains how this movement has gained momentum and what progressives might learn from its trajectory. What is not clear from this chapter, however, is whether the funding data that Hinsch provides from different conservative bioethics organizations is intended to do more than just draw attention to the kind of mobility available to conservatives,



given such generous funding. Finally, Laurie Zoloth asserts that conservative bioethics has an incorrect moral focus. She is critical in her chapter of the kinds of bioethical questions on which conservatives concentrate, and this focus, in Zoloth's view, displays a disregard for the present pain and suffering replete in this world.

Part three of this collection contains Paul Root Wolpe's discussion on how the biotechnology industry supports the need for bioethics. John H. Evans provides an interesting hypothesis on the division between religion-based bioethics and secular bioethics. In his view, this division originates from different intellectual concerns. Evans writes that "religious participants... were increasingly marginalized as the debate... moved from... 'which ends we adopt' to 'given a set of assumed ends, which means will maximize these assumed ends'" (p. 121). Finally, Eric M. Meslin identifies the progressive character of national bioethics commissions.

Part four demonstrates nicely that progressives, although they are committed to several core principles

as was indicated above, do not have a univocal position on bioethical issues. James J. Hughes argues that progressive values support the use of biotechnology:

A technoprogressive approach to human enhancement is merely the consistent application of the values that have been at the core of progressive political movements since the Enlightenment—the right of individuals to be free to control their own bodies, brains, and reproduction according to their own conscience.

p. 186

Although it is not explicitly a response to Hughes's piece, Marcy Darnovsky's contribution is one in which she concedes that although progressives welcome the benefits of biotechnology, they should also employ a precautionary principle, lest such unrestrained enthusiasm obscure the potential harm of such technology.

The final section addresses the general question of whether the politicization of bioethics necessarily results in an impasse between progressive bioethics and conservative bioethics. Michael Rugnetta puts forward a very provocative hypothesis in which Catholicism's teaching on conscience is supported by progressive values. In Rugnetta's view, this allows the Catholic Church and its faithful to be able to participate in pluralistic public discourse on bioethical dilemmas. This contention provides some hope for meaningful bioethical discussion to occur between religious-minded conservatives and secular progressives—a hope made all the more relevant by Arthur Caplan's contribution that the ascension of bioethics to a powerful position of social prominence cannot be sustained or operate effectively without ideological perspective. Caplan asserts that

Bioethics has power and can serve political purposes. It has made a difference, and now it wields power. No power exists

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in a political vacuum. The key to navigating the new world that bioethics finds itself in—the public arena, which is a stormy, unpredictable, and even dangerous place to be—is to admit these facts. Once it has conceded, there is no turning away from them. Bioethics will, like economics, political theory, and sociology before it, have to learn to live with power. One way to do so is to operate from explicitly ideological perspectives.

p. 223

Progress in Bioethics provides an important contribution to the movement, profession, and industry of bioethics. This volume accurately identifies progressive values and progressive bioethical commitments in a systematic way. Such systematization, I think, will be instrumental in mounting a more organized and persuasive progressive voice in policy debates and in the political arena, which is mostly dominated by conservative voices. My hope—and also my concern—is that such systematization of progressive values will not hinder meaningful thought about bioethical issues by these very voices. It would be a shame if thoughtful reflection were replaced by less-than-rational adherence to core principles—a criticism often lodged against conservatives.

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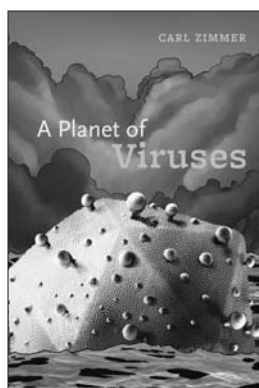
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PACK YOUR BAGS FOR THE VIRUS PLANET

A Planet of Viruses. Carl Zimmer. University of Chicago Press, 2011. 128 pp., \$20.00 (ISBN 9780226983356 cloth).

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The latest offering from prolific science writer Carl Zimmer, entitled *A Planet of Viruses*, provides an eye-opening overview of just how intertwined viruses are with the daily business of life on Earth. Virology as a field is spread over a broad array of disparate subdisciplines: disease prevention, vaccine development, population genetics, microbial ecology, bioinformatics, epidemiology, and modeling, to name just a few. It is easy to lose sight of the forest for the trees, but at just over 100 pages, Zimmer's slim volume provides an amusement-park sky ride view of the whole



field—and reinvigorates my excitement about viruses in the process. Zimmer is a lecturer at Yale University, where he teaches graduate and undergraduate courses in science writing. His interests are broad and include topics such as parasites, the brain and consciousness, and evolution. As are Zimmer's previous works, *A Planet of Viruses* is intended for an educated lay audience, so it offers a gateway to the realm of viruses, particularly for those unfamiliar with this territory.

The book is organized into logically chosen sections, beginning at the beginning, with the discovery of the first-known virus—tobacco mosaic virus. From there, Zimmer considers viruses that have been coevolving with humans for millennia, such as influenza and the common cold, and emerging viral diseases, such as West Nile virus and Ebola virus. He includes substantial coverage of HIV (human immunodeficiency virus), with some basic explanations of the

modeling used to trace its origins. I was particularly pleased to find an entire chapter dedicated to describing the ecological impacts of viruses that infect bacteria—the bacteriophages. Although the average reader will be familiar with some of the viral diseases that infect humans, bacteriophages tend to be lesser-known denizens of the viral world. However, as a result of their utility in treating bacterial diseases and their natural roles in the ecology of planet Earth, bacteriophages may have impacts on our well-being as powerful as those of any viral disease—a point that Zimmer conveys with a succinct punch. *A Planet of Viruses* closes with the most recently discovered virological curiosity, Mimivirus. Mimivirus has a genome larger and more complex than those of some bacteria, and its existence raises anew the question of whether viruses can be considered *alive*. This focal point also serves as the perfect, unresolved ending for a book that attempts to summarize the last century of virology—a rapidly evolving field that continues to produce incredible and unanticipated discoveries.

What I liked most about this book was its approach to its subject. Zimmer presents science as the human endeavor that it is, always naming the specific researchers involved in a given line of work and tracing their steps from initial discovery to puzzling results. This is important. Working with viruses is a formidable challenge because these microbes break many biological conventions. For example, although all cellular life on Earth uses a DNA genome, some viruses use RNA as their genetic material. As a result, the mechanisms by which these RNA viruses replicate can differ drastically from our understanding of cellular replication. In terms of fostering a public understanding of science, it is crucial to communicate these complexities effectively, especially when it comes to explaining why we wait so long for answers to some of our important questions (e.g., Where is the cure for cancer?). Chapter by chapter, Zimmer excels at underlining the