

Book Reviews

Edited by Jordan Mansell

Nancy N. Chen and Lesley A. Sharp, eds., *Bioinsecurity and Vulnerability* (Santa Fe, NM: School for Advanced Research Press, 2014), 320 pages. ISBN: 978-1-938645-42-6. Paperback \$39.95.

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In the introduction to *Bioinsecurity and Vulnerability*, editors Nancy N. Chen and Lesley A. Sharp argue that “global security is paramount” in the biosecurity strategies of the United States and other nations, “but individual or community survival is not” (pp. xiv). The objective of Chen’s and Sharp’s book is to upend this perspective and focus on how biology-related security issues and policies are related to human security at local and personal levels. Thus, the contributors intentionally critique and reframe the challenges commonly referenced in the context of biosecurity, including bioterrorism, biological weapons, public health, global epidemics, and re-emerging infectious diseases.

Overall, this book is well organized and coherent, which is a credit to the contributors and editors. The editors have divided the volume into three sections organized around unifying themes: “Framing Biosecurity: Global Dangers,” “Critical Resources: Securing Survival,” and “Vulnerability and Resilience: The ‘Bio’ of Insecurity.” Each section begins with an illustrated introduction that is especially useful for tying together the ideas contained therein. The first chapter in each section anchors the section theoretically, and the remaining chapters provide in-depth ethnographic cases relevant to the section’s theme. This model works very well for edited volumes, and other editors would do well to replicate it.

Six of the ten chapters are rich case studies that explore how issues of human insecurity with some biologically relevant component play out in a particular state and affect local communities and individuals. Specifically, these chapters address the violent crime rate

in Honduras; adulterated food and pharmaceuticals in China; counterterrorism and water scarcity in Yemen; gender and HIV/AIDS in South Africa; land rights in Ghana; and organ trafficking in Bangladesh. Two chapters deal predominantly with emerging technologies: xenotransplantation of organs grown in pigs and genetic engineering. In particular, these chapters address how access to and control of information related to such technologies can affect human security. For example, the commodification of biological knowledge (information) in the form of intellectual property, patents, and patent trolls is discussed in Chapter 4, “Biosecurity in the Age of Genetic Engineering.” This area has been the focus of much legal debate, including opinions from the U.S. Supreme Court, which the author notes. Biotechnology also is addressed in the chapter on China in the context of the potential for genetically modified crops to be a means to overcome food insecurity.

Xenotransplantation, the process of transplanting organs or tissues between species, provides an example of technology that might diminish the bioinsecurity of individuals, as this innovation offers alternatives to human organ donors and decreases the impact of cultural and economic factors that may drive or hinder participation in organ donation. Instead of being technologically deterministic, the case in the book would have been strengthened if it had addressed the dual-use conundrum (that is, that technology and research can be conducted for legitimate purposes that generate knowledge, information, technologies, and/or products that could be used for both benevolent and harmful purposes) while also showing that biotechnology scenarios are not solely dystopian.

The book would further benefit from a discussion of how the authors define or use the concept of *vulnerability*. Addressing what makes an individual or community more or less vulnerable to biology-related challenges would support the overarching thesis.

The volume would also be improved by a broader treatment of biosecurity as a subject of domestic and international politics. The volume does not fully develop how national approaches to biosecurity reflect the agency and self-interest of the various states involved in the different ethnographic cases. Furthermore, the

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contributors highlight the negative or unintended consequences of U.S. biosecurity policies since 9/11, but the question of how the concept of bioinsecurity relates to the U.S. national interest and political decision-making process is not explored in this book. Although the contributors “view 9/11 as a foundational event,” there is a long and deep history of scholars writing on biodefense, biological weapons proliferation, and even bioterrorism that predates the international terrorist attacks on September 11, 2001, and the subsequent domestic bioterrorist attacks using anthrax. One might hypothesize that the events on and after 9/11 gravely threatened domestic human security in part because the attacks co-opted critical parts of the civilian infrastructure, including civilian air traffic and the postal system.

Overall, this book provides a valuable and novel contextualization of the geopolitics, organizational structures, and technologies that drive and result from the biosecurity enterprise in the early 21st century. It

challenges the reader to think more deeply about global affairs beyond the traditional security realm. While I suspect that most readers will be anthropologists or science and technology studies (STS) scholars by training or inclination, the book should also find interested readers in economics, political science, international relations, and public health. The text is thoroughly accessible and would be appropriate for upper-division undergraduate seminar courses, as well as those studying at a more advanced level.

Practitioners and policy makers who are involved in creating, implementing, and executing policies related to biosecurity on the national and international level will find the case studies provocative, for they encourage us to ask, “What are the paths forward and solutions to the problems of bioinsecurity?” Many people in the “behemoths” of the U.S. federal government and international organizations are seeking answers to this question.