

## Books Forum

### Whose world? Which health? What security? The facts and fictions of global health security

Petra Dickmann

*Biosecurity: Biomedizinisches Wissen zwischen Sicherheit und Gefährdung. Transcript, Bielefeld, 2011, \$26.62, ISBN: 978-3837619201*

Lorna Weir and Eric Mykhalovskiy

*Global Public Health Vigilance: Creating a World on Alert. Routledge, New York, 2010, \$105.99, ISBN: 978-0415958424*

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On 10 January 2003, the US National Academy of Sciences convened a meeting in Washington, DC, to address growing political concerns about the threat of bioterrorism. The next day, a group of editors met separately to discuss the implications of bioterrorism for the scientific publication process. At the end of the latter meeting, a statement emerged that was published in February simultaneously in three prominent journals: *Science*, *Nature* and the *Proceedings of the National Academy of Sciences* (PNAS). As the Statement on the Consideration of Biodefence and Biosecurity observed ‘the events of 11 September brought a new understanding of the urgency of dealing with terrorism. And the subsequent harmful use of infectious agents brought a new set of issues to the life sciences. As a result, questions have been asked by the scientists themselves and by some political leaders about the possibility that new information published in research journals might

give aid to those with malevolent ends’ (Atlas *et al*, 2003a, 2003b). In their statement, editors rejected a formal role of the US government, instead advising authors and journals to take seriously their responsibility in determining what constitutes sensitive research by designing appropriate review procedures. ‘Scientists and their journals should consider the appropriate level and design processes to accomplish effective review of papers that raise ... security issues’, the statement suggested.

Only 2 years later, in October 2005, a group of scientists reported that they had reconstructed in the laboratory the influenza virus that killed between 20 and 50 million people worldwide between 1918 and 1919 (Tumpey *et al*, 2005). ‘This is extremely foolish’, futurologists Ray Kurzweil and Bill Joy commented in a *New York Times* editorial (Kurzweil and Joy, 2005). ‘No responsible scientist would advocate publishing precise designs for an atomic bomb’, they underscored. Upon making the complete genetic sequence of the virus public, the scientists were accused of releasing a ‘recipe for destruction’. The controversy continued in 2011 when two teams of researchers submitted papers to the journals *Science* and *Nature* respectively. In their submissions, the researchers independently reported results of a series of experiments conducted with H5N1 avian influenza viruses that had been modified in the laboratory. Security experts voiced concerns because the viruses had been manipulated to make them more transmissible among humans. According to the researchers, the purpose was to identify the pandemic potential of the virus. Would this virus be able to mutate and cause a deadly pandemic? To know more about the potential of the virus seemed to be important for pandemic preparedness purposes. In an ABC News report, Laurie Garrett of the US Council on Foreign Relations commented: ‘My first reaction was ‘Oh, my God, why did they do this?’ She then added, ‘I’m not real comfortable with having this virus exist – anywhere!’ Security experts, the ABC report noted, ‘say it’s crazy to let these secrets get into the hands of terrorists’. Hundreds of journal articles, opinion pieces, newspaper reports and blog entries were published, offering a broad range of suggestions on what should or should not be done with the research.

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Concerns about the power of science in an ‘age of bioterrorism’ are at the center of Petra Dickmann’s book *Biosecurity: Biomedizinisches Wissen zwischen Sicherheit und Gefährdung*. Dickmann is a Research Fellow in the Department of Health and Social Care at the London School of Economics and Political Science. In her German-language book, she traces the controversial debate about ‘dual use research’ in the United States and she demonstrates to what extent the discussion has focused not on dangerous biological matter, but on sensitive scientific information. The molecular revolution has not only changed biology, it has also contributed to the proliferation of a narrow notion of information. It is this problematic notion of information as ‘instruction’ in a cybernetic system of command and control that is now haunting the scientists who are accused of publishing not papers, but ‘recipes’ (Caduff, 2012). Dickmann’s argument is that restrictions on publications are ineffective as a form of regulation, not least because scientific information is made available in many ways, at conferences and workshops, for instance. Furthermore, such restrictions may limit the ability of scientists to triumph in the epic battle against germs. The identification of SARS, Dickmann maintains, has revealed the benefits of rapid information sharing.

The book offers a concise summary and historical contextualization of the debate. Dickmann highlights the stakes of contemporary research in the biological sciences. For the most part, however, the author reiterates arguments that are fairly well known. Her suggestion to encourage a broader social and political debate about the implications of biological research is well taken, but not particularly original. Readers with a curiosity for new arguments, questions and perspectives might thus close the book with dissatisfaction. Dickmann also avoids almost entirely an engagement with the relevant literature in the social sciences. This is rather unfortunate, given the rich body of work that has appeared over the past years on the matter of bio(in)security, a body of work that includes contributions by Kezia Barker, Nick Bingham, Bruce Braun, Melinda Cooper, Lyle Fearnley, Stephen Hinchliffe, Nicholas King, Andrew Lakoff, Filippa Lentzos, Joseph Masco, Nikolas Rose and Kathleen Vogel, to name just a few. Such an engagement would have allowed Dickmann to situate today’s concerns with science and security within a broader context.

This literature is discussed and engaged in Lorna Weir and Eric Mykhalovskiy’s book *Global Public Health Vigilance: Creating a World on Alert*. The two authors are professors of sociology at York

University in Toronto, Canada. They analyse concerns with biological threats in the context of ‘global public health security’. This notion, they argue, marks a ‘historical break’ in public health discourse and practice. The characteristics of this break are three distinctive developments: First, the ascendancy of the new scientific concept of ‘emerging infectious diseases’; second, the installment of ‘early warning systems’ for infectious diseases; and third, the formation of a ‘global regime’ primarily concerned with ‘public health emergencies’. The key aim of ‘global public health vigilance’ is to ‘recognize dangers to public health, verify information, send alerts, and intervene before a situation becomes internationally catastrophic’. Significantly, biological threats are not just ‘recognized’; they are made concrete, as facts and fictions, to generate traction for the intended construction of a ‘world on alert’.

Weir and Mykhalovskiy’s account of ‘global public health vigilance’ is illuminating, but it leaves an important question aside: Who wants to live in a world on alert? Where is this idea coming from? In the book, the authors quote a public health official who notes that the concept of emerging infectious diseases ‘came out of the United States’. It is, not surprisingly, tied to American security interests. Weir and Mykhalovskiy underscore that alternative understandings of human health and well-being exist. The key aim of the authors, however, is not to explore these alternatives, but to show how ‘global public health vigilance’ has been able to generate a sense of inevitability over the past decades.

The book offers a coherent and consistent account of ‘global public health vigilance’. The coherence and consistence prompts a fascinating question: Is the object of analysis coherent and consistent, or is it the analysis that is generating the coherence and consistency? To what extent is the notion of ‘global public health vigilance’ itself a force in the making of structure and order? Is the notion constative or performative? Is the notion contributing to the construction of what it is describing? How can we in fact avoid our analytics to systematize, organize and stabilize discourses and practices that, in reality, are much less universal and much more heterogeneous and uncertain than they might appear at first sight?

The systematic blurring of the constative and the performative provides ‘global public health vigilance’ with its rhetorical power. Weir and Mykhalovskiy’s account is based on seven interviews conducted at the World Health Organization (WHO) in Geneva, Switzerland and 10 additional interviews conducted with members of the Global Public Health Intelligence

Network in Ottawa, Canada. In their book, the authors also refer to technical reports and archival documents. This empirical evidence seems sufficient to analyse the formal principles of a discourse, but it is not necessarily adequate for an investigation of a 'global emergency vigilance apparatus' and its actors, institutions and actual practices as well as its strategies of intervention and their consequences in particular parts of the world. Weir and Mykhalovskiy suggest that the WHO has been transformed into a 'suprasovereign power' and that a 'governance apparatus capable of detecting and responding to international health emergencies in real time' has emerged. However, this appears to be more of a vision than an argument. To take it seriously as an argument we would need a study that is going beyond the documentation of WHO discourse. Has a 'global apparatus' really come into being with the WHO at its centre? And for whom is the WHO a 'suprasovereign power' and for whom is it not?

Of course, the 'global perspective' has always presumed that it is a view from nowhere. Upon inspection, it frequently turns out to be a rather parochial view. What the authors illuminate in their book is thus not a global power, but a local perspective. What they analyse is a view of the world, a view of the world as it appears from a Geneva office.

## Dual-use governance in an age of innovation

Jonathan B. Tucker (ed.)

*Innovation, Dual Use, and Security: Managing the Risks of Emerging Biological and Chemical Technologies*. MIT Press, Boston, 2012, US \$27, ISBN: 978-0262516969

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The view is coherent and consistent, or so it seems, at least at first sight. However, rather than to systematize, rationalize and globalize the view, we should provincialize it: Whose world? Which health? What security (Gaonkar, 2010)? The facts and fictions of a 'world on alert' have become hyper-visible today, at least for some people in some parts of the world. How can we analyse the hyper-visibility without making it ever more visible?

## References

- Atlas, R.M. *et al* (2003a) Statement on scientific publication and security. *Science* 299(5610): 1149.
- Atlas, R.M. *et al* (2003b) Statement on the consideration of biodefence and biosecurity. *Nature* 421: 771, 20 February 2003.
- Caduff, C. (2012) The semiotics of security. Infectious disease research and the biopolitics of informational bodies in the United States. *Cultural Anthropology* 27(2): 333–357.
- Gaonkar, D.P. (2010) Whose fears? Which life? What security? *Public Culture* 22(3): 405–410.
- Kurzweil, R. and Joy, B. (2005) Recipe for destruction. *New York Times*.
- Tumpey, T.M. *et al* (2005) Characterization of the reconstructed 1918 Spanish influenza pandemic virus. *Science* 310(5745): 77–80.

The dual-use dilemma occurs when scientific research, materials or technologies can be used to both benefit and harm humanity. In the life sciences, the potential to advance human health, agriculture, energy and industry also presents a grave risk of misuse by state and non-state groups and individuals. In a connected, online world that further enables rapid innovation, the governance of the life sciences to prevent misuse without forgoing putative benefits is an evolving discussion.

Jonathan Tucker's edited volume on dual-use, *Innovation, Dual Use and Security*, presents a highly ambitious, accessible and detailed contribution to this literature. A collection of essays on dual-use technologies that build on a central framework, informed by historical cases, *Innovation, Dual Use and Security*, presents more than a rigorous scholarly