

Book Reviews

Edited by Gregg R. Murray

Peter Derkx and Harry Kunneman, eds., *Genomics and Democracy: Towards a 'Lingua Democratica' for the Public Debate on Genomics* (Amsterdam: Rodopi, 2013), 355 pages. ISBN: 978-9042037199. Hardcover \$99.00.

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The central theme of this work, as the title of this collection of essays suggests, proposes a linguistic strategy for public debate at the intersection of genomics and democracy. The edited volume consisting of fourteen papers began as a proposal by a multidisciplinary team with the Center for Society and the Life Sciences research program on the Social Aspects of Genomics in the Netherlands. The Center arose following a decision in 2001 by the Dutch government to invest a half billion Euro in genomics research.

In the introduction, editors Harry Kunneman and Peter Derkx provide details about the evolution of the project and inherent challenges in their proposal. Three key premises are integral to the work. First, although genomics is grounded in science, its normative and epistemological dimensions extend beyond narrowly objective or reductionist understandings of science. Second, collaborative dialogue is necessary to facilitate democratic ideals in genomics research. And third, because democratic societies require public debate and collaboration on the politics, funding, and potential benefits of genomic research, the use of specialized, technical language in discussions about potential enhancements in health, food production, and cultural evolution implicit in genomic research is problematic.

The volume is organized into three sections: (1) Complexity Theory, Social Constructionism, and Hermeneutics; (2) Ethics and Worldviews; and (3) Corporations, Governments, and Democracy. The strength of the work resides in the individual essays, especially those in the third section on Corporations, Governments, and

Democracy. These chapters most clearly achieve what the title suggests. Essays address emerging collaborative approaches that have attempted to bridge social, cultural, and political aspects of genomics research.

An essay by Alle Bruggink begins the section with a discussion of the shifts that have occurred in scientific research and development. Drawing upon his own experiences in the Netherlands, the author discusses tensions and dilemmas that arise during initial attempts to forge government, academic, and corporate partnerships. Anders Nordgren follows with an essay on direct-to-consumer marketing of DNA testing. Personal empowerment as a strategy for marketing these products is one of the central issues explored in this essay. Nordgren concludes his essay with remarks on ways in which deliberative democracies can provide a robust response to genomics research when appropriate tools are employed effectively.

In the third essay in this section, Michiel Korthals uses nutrigenomics to discuss fundamental uncertainties about genomics research in deliberative democracies. A discussion of both verbal and nonverbal tools influencing the public debates on genomic research cites a classic philosophical paper on trust. Guido Ruivenkamp and Joost Jongerden provide a perspective on the industrialization of agriculture. The essay includes commentary on problematic aspects of patents and patent litigation. In conclusion, Ruivenkamp and Jongerden note many contradictory developments in genomics and observe that new ways of providing access to information—like open-access technologies—may lead to a restructuring of political forces that will subsequently strengthen societies.

In the final essay in this section, Marli Huijjer discusses outcomes following integration of personal narrative within debates over whether to allow preimplantation genetic diagnosis of embryos carrying the BRCA genes associated with breast cancer to influence parental decisions. A selection of feminist theory perspectives provides alternatives to the foundational underpinnings of the public debate over genomics. The chapter concludes by observing that personal-experience storytelling can soften polarized perspectives on normatively charged topics.

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The essays in the Ethics and Worldviews section offer perspectives on controversial issues associated with genomic research, including two essays on the normative issues surrounding the enhancement potential of genomic research (e.g., transhumanism). Another essay in this section discusses an alternative approach to funding medical research on diseases that particularly afflict developing nations. Metaphors underpinning ideologies of genomic research are covered in another essay. An entry by Derkx on controversies over extending the lifespan ends the section. Finally, the chapters in the section on Complexity Theory, Social Constructionism, and Hermeneutics begin the work with an exposition of several theoretical perspectives on knowledge and knowledge creation. An essay by Kunneman concludes the section and proposes an extended, alternative epistemology he calls “Mode 3 Knowledge.”

Challenges for readers in the introduction to *Genomics and Democracy* are both structural and conceptual. One structural anomaly is the omission of names of theorists referenced in an extensive discussion about the proposal and its foundational underpinnings. Thus, although references for Benhabib, Chillers, and Habermas appear and help provide an orientation for readers on aspects of the theoretical commitments underlying the project, other references are not listed in the bibliography. Sparse indexing exacerbates the difficulty of grasping the foundational commitments and trajectory of the project. Readers are left either to read beyond the named scholars or attempt to reconstruct reasons for citing them by independently researching the names and disciplinary activity or influences and trying to ascertain significance to the larger project. Adding to the confusion is the fact that it is difficult to conceptually navigate lines the editors blur between exposition of the essays and foundational commitments of the overarching project that fall beyond the bounds of individual essays. These omissions and blurring of lines create a certain dissonance.

A second conceptual quandry is the invention and use of the quasi-technical term *lingua democratica*. An excerpt of the original proposal included in the introduction explains that the term has been proposed to capture “presuppositions and core concepts” across the

disciplinary conventions and expose “‘interaction-prone’ articulations.” This sounds like postmodernism. One difficulty in using a linguistic device like this in the context of a project designed to facilitate public debate across epistemic, normative, scientific, and political issues related to genomics is that readers are unlikely to agree on what constitutes effective democratic discourse using an unfamiliar linguistic term with an imprecise definition. If the desired outcome is simply generating conversation, then perhaps the strategy can achieve that end. However, if the desired outcome of this project is improving epistemic rigor and clarity of the complex issues associated with genomic research, then this linguistic strategy is unlikely to succeed.

Several authors include a discussion of the potential for a *lingua democratica* within the context of their individual essays. Bruggink, for example, provides a sympathetic response. He states that meaningful developments are underway and ties this to his analysis of conceptually divergent approaches and attitudes of experts and representatives of nongovernmental organizations. Although these factions share a mutual interest in activities and implications of genomic research, their understanding and engagement originates in divergent approaches and comprehension of genomics.

Genomics and Democracy is the first volume of a series on life sciences, ethics, and democracy, and holds potential interest for scholars, academics, and public intellectuals who are deeply engaged by the topic. Essays are written at a professional level and cover an unusually broad selection of topics and issues related to genomics. Theoretical commitments across the essays in this work are extensive and multidisciplinary. Thus, astute readers will either require a previous familiarity with the background literature or a willingness to research the influences and assumptions. They will also need to engage in reflection and debate across diverse topics affiliated with genomic research. Whether this work leans too far into esoteric theoretical speculation on genomics and democracy or achieves the goal of opening opportunities for public debate on funding, research, and applications inherent in democratic collaboration on genomic research depends upon uptake by a relevant audience.