

Schmeink, Lars. *Biopunk Dystopias: Genetic Engineering, Society, and Science Fiction*. Liverpool University Press, 2017. 288 pp. Hardcover. ISBN 9781781383766. \$120.00.

Lars Schmeink's *Biopunk Dystopias* provides a useful, and mostly persuasive, account of the visions of bioengineering that have come to populate post-2000 science fiction. The first two chapters set up the premises of Schmeink's argument, and the remaining chapters offer a series of case studies through the close analysis of science fictional works of literature, film, television, and computer gaming. The theoretical discussions make strong claims that will provoke a certain amount of disagreement; the case studies are finely observed and rigorously argued.

The book begins with a consideration of what might be called (though this is not a term the author uses) biopolitical speculation. Ever since Darwin, scientists, intellectuals, and artists have been concerned with the ways that the scientific mastery of evolutionary processes might work to radically change human nature and human society. This is first glimpsed in nineteenth-century doctrines of eugenics, and in such late-nineteenth-century works as Wells's *Island of Doctor Moreau*. Such speculation picks up steam with the biological discoveries of the twentieth century, from the rediscovery of Mendelian genetics, through Watson and Crick's determination of the double helix structure of DNA, and onward through recombinant DNA technologies and discoveries concerning gene regulation, all the way up to the Human Genome Project at the end of the twentieth century. The line between basic biological research and the development of technologies to manipulate biology is a very thin one; it is both tempting and easy to imagine engineering extensions of our increasing scientific understanding of the functioning of the genome and of the cell. By the late twentieth century, in response to these developments, science fiction is replete with "depictions of cloning, genetically enhanced societies, and organ harvesting" (Schmeink here is quoting Joan Slonczewski and Michael Levy's chapter on science fiction and the "life sciences" in Edward James and Farah Mendlesohn's *The Cambridge Companion to Science Fiction*).

Schmeink discusses how the growth of these technologies leads to a mutation in the focus of cutting-edge science fiction. He defines *biopunk* as being a development, or a transcending, of the cyberpunk of the 1980s and 1990s. Cyberpunk was mostly about the new virtual technologies, but it also addressed the visceral impact of these seemingly disembodied forms of experience. From Gibson's *Neuromancer* onward, the price of entry into the weightless realm of cyberspace always involves extreme bodily modification, often with horrific physical consequences. To a large extent, cyberpunk dystopias always already involve a biological or post-biological dimension. The shift in twenty-first-century biopunk is therefore one of emphasis: Instead of embed-

ding body alteration within a cybernetic, virtualizing, and digital framework, biopunk embeds new communications and computing technologies within an overall framework of bioengineering. Instead of adapting human biology to the needs of the computer, we now employ computing power in the service of biological manipulation for its own sake.

Beyond observing this transition, Schmeink extrapolates from these observations to suggest that biological speculation has reached a threshold, and passed from specialized concern to general social ubiquity: “with the turn of the twenty-first century, the genetic has become not just a theme in sf, but rather a cultural formation that transcends the borders of the literary genre and establishes itself in mainstream culture” (9). Biological speculation is no longer just a concern of science fiction literature, but pervades all areas of the cultural sphere. And the actual developments in recent bioengineering are getting close to the extrapolations that science fiction has traditionally depicted.

In *Biopunk Dystopias*, such observations are intertwined with a number of arguments on different theoretical levels. These strands of thought concern utopianism, posthumanism, and the nature of globalized, financially dominated capitalism today. Schmeink embraces the critical posthumanism of such thinkers as Rosi Braidotti and Cary Wolfe; but he does not follow the critical utopianism of such Marxist-Blochian sf critics as Suvin, Jameson, and Freedman. Rather, he “sees ‘utopia’ as a neutral term that incorporates any form of ‘social dreaming,’” and that thereby “also allows for dystopia, the negative side of the dream, the nightmare to be warned about, as equally utopian”(12). For Schmeink, *eutopia* (the good place) and *dystopia* (the bad place) are the equal endpoints of a utopian continuum. I am not happy with this formulation; like the aforesaid Marxist-Blochian thinkers, I fear that it flattens out the dialectical interplay of the opposing poles or terms. At its best, sf utopianism does not just equivocate between liberating and oppressive outcomes of technological development. Rather, it both conveys a sense of communism as a radical rupture with the given capitalist world, *and* foregrounds the ways in which communism is not an ideal opposed to present actuality, but an actual condition of change or extrapolation, “the real movement which abolishes the present state of things” (Marx, *The German Ideology*).

Despite this theoretical disagreement, I have no quarrel with most of Schmeink’s observations on the social influence of new biotechnologies, and on how science fictional extrapolation allows us to comprehend this. For social theory, Schmeink draws most heavily on the late Zygmunt Bauman’s notion of “liquid modernity,” involving “the dissolution of social institutions and the shifting of focus from public debate onto private life choices, the global dimension of current political issues, and, in contrast, the individualization of solutions to those issues” (15). Bauman’s theorization can itself be taken

as an extrapolation, for the specific conditions of the late twentieth and early twenty-first centuries, of Marx and Engels' famous observation that, in bourgeois society, "all that is solid melts into air, all that is holy is profaned, and man is at last compelled to face with sober senses his real conditions of life, and his relations with his kind" (*Communist Manifesto*). Schmeink notes as well that (like Marx and Engels themselves) Bauman never proposed anything like "a utopian blueprint for future action" (12); his work remained critical and negative. Indeed, this is why Schmeink focuses on the dystopian side of sf extrapolation, rather than what he calls the eutopian side. Despite the theoretical disagreement I noted above, I think that this is a good strategy pragmatically, which pays off in the powerful insights of Schmeink's close readings.

These theoretical considerations are important; but the real meat of *Biopunk Dystopias* comes in the discussions of particular representative works in the remaining chapters. Schmeink discusses, in turn, the ways that biotechnology run amok is contemplated in prose fiction by Margaret Atwood and Paolo Bacigalupi; the way that Vincenzo Natali's film *Splice* reflects on corporate and entrepreneurial modes of biotechnology research; the way that the video game *BioShock* comments, both in its themes and in its formal manipulations, upon genetic manipulation and the ways this is and is not open to individual, market-based "choice"; the way that the television series *Heroes* negotiates the dilemmas of individual and collective action, and moves between the extraordinary powers of biologically enhanced superheroes or posthumans, and the quotidian necessities of everyday life; and finally how the ubiquity of zombie fictions in the post-9/11 era dramatizes the stakes, not just of terrorist threats, but also of corporate manipulation, and of general processes of "viral" contamination and contagion, in both literal and metaphorical senses, of the term, in our globalized and security-obsessed societies. All these chapters are dense and rich with insights. All the works discussed within them trace the consequences of Bauman's liquid modernity on scales both personal and societal, and trace the emergence of political strategies of preemption, exclusion, and sovereign exemption. Both the works discussed by Schmeink, and the discussions themselves, add nuance, detail, and concretization to themes that have been discussed not only by Bauman, but also by such thinkers as Foucault and Agamben. The book ends by tentatively proposing some ways in which the biological horrors of all these sf narratives also offer, at least provisionally, a vision of posthuman developments in their eutopian (or just utopian in the old sense) aspects. The book rightly does not exaggerate these hopes, but offers at least a glimpse of how the way through the biotechnological menaces of our world today might also involve a way out.

STEVEN SHAVIRO