

*Synthetic Biology and Morality*

Edited by Gregory E. Kaebnick and Thomas H. Murray (MIT Press, 2013)

Reviewed by Richard Joyce for *Quarterly Review of Biology* (2014)

[penultimate draft]

Synthetic biology is the emerging science pertaining to the intentional construction of organisms from raw materials. Currently in its infancy—dealing largely with unicellular life—this technology has potential for an enormous range of applications. But as with other biotechnologies, such as IVF and cloning, the science inevitably arouses a host of moral questions. *Synthetic Biology and Morality* is a collection of papers devoted to framing and addressing some of these questions. It consists of three sections, each containing three articles. Contributors are largely moral philosophers, a number of them (including the two co-editors) attached to the Hastings Center.

The first part—“The human relationship to nature”—grapples with that most predictable of moral concerns: that by synthesizing organisms humans overstep their natural purview and are “playing God” in a manner that is deeply troubling. One paper stands opposed to this “playing God,” one attempts to alleviate the concern, and one provides a kind of “conceptual cartography” of the issue. The latter, by Andrew Lustig, provides a sensitive discussion of the very idea of “interfering with the natural course of the world,” expressing misgivings that such intuitions withstand scrutiny, thus doubting that they should form the basis of any practical guidance.

Part two—“The value of synthetic organisms”—discusses the possibility that all organisms, even artificially synthesized ones, have a moral status making them worthy of protection and consideration. The three papers of this section are informed by a background of environmental ethics, certain proponents of which have attributed inherent moral status to all life forms. It seems implausible that any such inherent worth should depend on the extrinsic matter of the organism’s etiology (i.e., whether it is the product of a natural or artificial process), and therefore attributing moral worth to ordinary organisms seems to commit one to granting synthetic organisms that same worth. The authors seem more or less apprehensive or puzzled by this implication, but have nothing much to say against it. Of course, there are numerous ethical viewpoints that eschew granting inherent moral status to organisms (whether unicellular or more complex), and from these viewpoints the issue doesn’t arise.

Part three—“Values and public policy”—focuses on the extent to which people’s misgivings about synthetic biology should influence social policy and public discourse. Two of the papers argue that objections to synthetic biology should have no such influence, while one, by Bruce Jennings, argues to the contrary that this new technology should be subject to democratic governance. Jennings’ worry is that synthetic biology, if pursued, conveys a harmful “civic and moral narrative”—harmful because it undermines “the recognition that human beings are embodied, embedded, ‘natured’ creatures, necessarily and fundamentally” (p.167).

I confess that when starting this book I anticipated a wearisome clashing of conservative and liberal intuitions concerning humans “knowing their limits,” an abundance of hand-wringing

over “playing God” and “violating nature,” and so on. And while *Synthetic Biology and Morality* did not always disappoint this anticipation, on the whole I was impressed by the subtlety and range of discussion. For those interested in this topic, or in the broader topic of bioethics, this is a nice little collection of stimulating readings.