Julian Savulescu and **Nick Bostrom**, eds.
Human Enhancement.
Oxford: Oxford University Press 2009.
416 pages
US$55.00 (cloth ISBN 978-0-19-929972-0)

Advances in biomedical science have often brought with them new ethical challenges, with birth control technologies and stem cell research remaining controversial issues to this day. More recent advances find us on the brink of being able to determine the very direction and rate of human evolution. We can artificially select, to a degree not previously thought possible, the *kinds* of people we want and don't want to exist. We can select and modify in order to nudge the capabilities of human beings towards much higher levels than they have at present. We might be able to push the boundaries so far that human nature itself is transcended. That we will soon be able to tweak human beings in these ways is not in question; rather, the contributions to *Human Enhancement* consider whether and to what extent we *should* use the new technologies to do this.

We naturally face the specter of the old eugenics movement here, and some effort in the book is spent distinguishing human enhancement from eugenics. In the final analysis, whether they really are very distinct concepts is not clear to me. It is true that the cases involved are of a rather different sort, but this is primarily a result of the technological advances rather than a divergence in *goals* (though their motivations might well be very different). Many of the pro-enhancement arguments can easily be taken as arguments for eugenics, which is not necessarily a bad thing. Whether it is ultimately eugenics or not, the issue is still an urgent one for the present, and certainly for future generations. This book does an admirable job providing a wide-angle lens view of the central issues that must be faced.

The book is in three parts, preceded by a very clear introduction by the editors in which they introduce the core themes and define key concepts. Many of the contributions were based around talks given at a conference on the general theme of the ethical improvement of humans. Part 1 (comprising ten chapters) deals with issues about the ethics of human enhancement in general, with Part 2 (comprising seven chapters) focusing on some specific examples of enhancements, including sport-related enhancement, genetic screening, and the selection of children's genes. The editors suggest that we ought to consider questions of the ethical implications of human enhancement technologies on a case-by-case basis. Part 3 is a single closing essay dealing with the potential risks that human enhancement might pose when put into practice. The quality is quite uneven, as is usual in large edited collections, and the standard of argumentation is not always strong. I can't imagine philosophers' preexisting *stances* on the subject being modified as a result of reading this book—though the editors explicitly state that this was not their purpose. However, there are some general 'results' that emerge, such as the notion that human enhancement is something that happens at a population level since the notion of distinctively human traits ('human nature') is itself a population-level notion, and also that the individuation of enhancements (positive or

negative) involves a certain degree of vagueness, with matters often best settled using contextual factors.

Two opposing camps can be distinguished: 1) the 'bioconservatists', who, as the name suggests, recommend that we should not tamper with human evolution in this way, and 2) the 'transhumanists', who, again as expected, believe that we should make the most of the artificial adaptations—the editors also isolate a *tertium quid* camp who espouse something like the idea of a 'golden mean' in terms of allowed enhancements. There are a variety of motivations underlying these views. Not surprisingly, religion (Eastern and Western) stands at the root of many bioconservatist positions, but one can also find (superficially) more secular 'naturalness' considerations (such as 'the belief in the wisdom of nature' [17]) playing a role. However, as one might expect, these approaches are couched less in logic and more in an attempt simply to read an appropriate position into some prior framework (of religion or spiritualism). On account of this they are usually rather easy to defeat with logical argument. For reasons of space, in this review I'll mention just a small handful of notable chapters here.

In Chapter 4, Michael Sandel puts forth a bioconservatist case. Frances Kamm provides a critique of Sandel's position in the subsequent chapter. Sandel esentially gives an abridged version of his book, *The Case Against Perfection* (Harvard University Press 2007). Sandel thinks that the act of making ourselves 'better than well' puts us in a predicament; it pushes against 'the moral status of nature, and…the proper stance of human beings toward the given world' (72-3). He works his way through a series of possible enhancements: muscle, memory, growth, and reproductive technologies. The notion of 'naturalness' that underlines Sandel's discussion is one of its downfalls. I also find that theological components blind Sandel to several mistakes. A prime example is his claim that while we 'choose our friends and spouses as least partly on the basis of qualities we find attractive…we do not choose our children' (79). There are perfectly good evolutionary arguments that *in* choosing our spouses on the basis of qualities we find attractive then (in relations that involve the production of children) we *thereby* choose our children too.

Sandel, following the theologian William May, believes that it is a virtue blindly to accept whatever comes our way in terms of offspring: 'openness to the unbidden' is the catchphrase that Sandel seizes upon. This exposes the innards of 'the moral objection to enhancement', namely what Kamm in the subsequent chapter calls 'the mastery of life processes' (93), including children. Sandel argues that this could have damaging consequences for the children produced in this 'hyperparented' way. But several *non sequiturs* follow in Sandel's reasoning. For example, he claims that the medication of children with ADHD is the kind of consequence that results from such hyperparenting, since the aim is to increase their focusing capacities. But, very often, far from hyperparenting, it is parents who are railroaded into medicating their children in this way. There is no correlation that I'm aware of between hyperparenting tendencies and the medication of underperforming children—if anything, I would expect to find the opposite of what Sandel suggests. Moreover, it simply doesn't follow that, if one is pro-enhancement, one is forced to accept *any and all* means of increasing some capacity,

regardless of the consequences. Most of these drugs have damaging side-effects and, since they are relatively recent, many unknown features, and any sensible account of when to intervene would take these aspects into consideration. One could go on pulling this chapter apart, but the subsequent chapter by Kamm does just this in an extremely detailed demolition job in which she reviews and rejects each of Sandel's claims and also disposes of a great deal of his conceptual framework. (It is somewhat worrying to discover that Sandel served on G. W. Bush's Council on Bioethics!)

Another sharply argued chapter is that of Dan Brock in Chapter 11. Brock discusses the positive and negative stance towards the selection of children and ultimately argues that the case against does not hold water. He considers many of the arguments that Sandel discussed, such as enhancements as going against the unconditional acceptance of children and the anti-perfectionism case. Peter Singer takes up where Brock leaves off, but then considers the potential ethical fallout of an adoption of a liberal selection program. The issues here bring to mind dystopian fiction, with a Nozick-like 'genetic supermarket' emerging in which there is competition for those enhancements that would lead to an increased status in society. Singer argues that policies could be put in place to avoid potential problems with this liberality. However, as the editors note in their introductory chapter, this is probably just wishful thinking. It is not a big stretch to imagine the emergence of a '*black* genetic supermarket' close behind.

The final chapter, by Nick Bostrom and Anders Sandberg, on potential risks posed by human enhancement, focuses on the special challenges introduced by the *complexity* of humans. Since we are so ignorant of so much of the workings of the body, one might choose to adopt a more cautionary stance. Bostrom and Sandberg are pro-enhancement, and develop a series of arguments and case studies to allay concerns about risk. The centerpiece of their argument is a heuristic strategy invoked to answer what they call the 'Evolutionary Optimality Challenge'. If the artificial enhancement is a good thing, then why hasn't nature (in all its wisdom) already made use of it? This enables them to discover situations where it would be unproblematic to proceed and others where it would not be safe. But, again, this highlights the fact that one should consider enhancements on a case-by-case basis.

Human Enhancement would make a superb textbook or companion text for an introductory to intermediate bioethics class, or a seminar on the role of science in society. I have no hesitation in recommending it to instructors. There are some wonderful, and some not-so-wonderful chapters; the latter would be very useful as 'target practice' for discussion in tutorial groups! The book might well have some wider appeal outside of academic circles given its intrinsically interesting theme and fairly elementary presentation of the state of the art of human enhancement technology.

Dean Rickles
University of Sydney