Alan Buchanan Better Than Human
The Promise and Perils of Enhancing
Ourselves NY: Oxford, 2011.

7 | THE ENHANCEMENT ENTERPRISE

We've gone a considerable distance since we encountered Michelle's and Carlos's knee-jerk reactions to enhancement in chapter 1. We've seen that matters are more complicated than they thought. It's worth the effort to try to summarize the main conclusions of our investigation, even if doing so will inevitably involve oversimplification.

- Biomedical enhancements are already here and more are on the way, whether we like it or not. Research to cure and prevent disease will inevitably open up new possibilities for being better than well, for increasing human capacities by biomedical means. So 'just saying no' isn't an option.
- The age of biomedical enhancements will bring new challenges, but it's a mistake to think that the ethical problems are novel. This isn't surprising given that enhancement is a very old human activity—indeed a distinctively human activity, something that helps define us. The risks include lack of appreciation for what we have, "hyperparenting," unwittingly making things worse in an attempt to improve them, and worsening existing injustices. But none of these are new problems. They arise whenever human beings attempt to improve their condition or that of their children.
- What matters most is how we prepare ourselves for meeting the challenges that biomedical enhancements will bring. The first step is to rid ourselves of false framing assumptions and faulty metaphors that can bias our decisions about enhancement.
- Nature or evolution is not like a master engineer. The natural—the biological status quo—is rarely optimal, and sometimes it's not even acceptable. To make a rational evaluation of the possibilities of biomedical enhancement, we have to rid ourselves of pre-Darwinian, romanticized, rosy assumptions about nature and our own biology. Human nature is a mixed bag, with plenty of room for improvement.
- It's a mistake to assume that the various elements of human nature are so densely interconnected that any attempt to improve it will be disastrous. The more we learn about how we are put together, the better equipped we'll be for selectively and safely intervening to make improvements. Sweeping generalizations about seamless webs are unhelpful. We need more fine-grained knowledge of causal connections. We need cautionary rules of thumb solidly grounded in knowledge of causal connections. As our knowledge increases, interventions that would now be foolish will become reasonable. Any sane approach to the risks of biomedical enhancement must be knowledge-sensitive, and this means it must both reflect and encourage the growth of knowledge.
- Attempts to draw bright lines that exclude biomedical enhancements across the board fail. It makes no sense to draw a bright line between enhancement and the cure or

prevention of disease. Sometimes, there are good reasons to go beyond therapy, to try to be better than well. Our concepts of health and disease are tied to what we think is natural for us, but what is natural for us is merely a reflection of where we happen to be now, as a result of our evolutionary development. Evolution doesn't create products that are biologically optimal, much less optimal from the standpoint of what we rightly value. Even if it's true that the aim of medicine is health, that doesn't show that it's wrong to use biotechnologies to make us better than well. A "well" elderly person, for example, has stiff, painful joints, reduced libido, compromised mental functioning, and poor physical stamina. If we can safely use biotechnologies to reduce some of the afflictions of old age, we should do so, and, morally speaking, it doesn't matter whether this counts as treatment or enhancement.

- Reflections on human nature can't tell us whether any particular biomedical enhancement is advisable or inadvisable, right or wrong. At most, human nature serves as a constraint on what can be good or right for us; it shapes the general character of morality and flourishing for us. Even that may change, however, because what have been constraints up until now may be relaxed by biomedical interventions.
- In the enhancement debate, as elsewhere, appeals to human nature and the natural are risky. The best minds have often made serious mistakes about what's part of human nature and what isn't. Even worse, talk about human nature and the natural is often stealth moral imperialism: passing off highly subjective moral views as if they were statements of fact. In addition, talk about human nature and the natural is often used to stigmatize, demean, and marginalize certain people. In the ethics of enhancement, as in ethics generally, everything of value that can be framed in the language of human nature and the natural can be said just as well without using those terms, and with less risk of confusion and abuse.
- Enhancement isn't the pursuit of perfection or total mastery. In some cases people may pursue enhancements out of an unseemly desire for mastery or because they fail to properly appreciate what they have. But it's simply false to say that enhancement "represents" the desire for mastery or the pursuit of perfection. People can and do have different motives, and mixed motives, for enhancement. In this respect, biomedical enhancements are no different from the traditional enhancements, like education and science. To take biomedical enhancements off the table on the basis of a wild prediction that they will inevitably involve mass delusions of total control is not only hysterical; it's ethically irresponsible.
- The risks to character that biomedical enhancements pose are not new risks: They arise for every human endeavor at improvement. If history is any indication, we can be reasonably confident of two points about this risk. First, in some cases, it will be worth running, because the benefits will be great enough. Second, the risk will not be equally distributed; some people will abuse biomedical enhancements and some won't, just as some people now abuse prescription drugs or alcohol or cosmetic surgery and most don't. In the case of biomedical enhancements that will bring great benefits to many people and that will not be abused by most, we should be very cautious about banning them simply because some people will abuse them.

- Biomedical enhancement raises serious issues of justice, but none of them are new issues. They arise for all previous enhancements—from agriculture to literacy, numeracy, computers, and the development of institutions—in brief, for all valuable innovations. Instead of indulging in biomedical enhancement exceptionalism, we need to think about the more general problem of justice in the diffusion of valuable innovations. Drawing on information about the conditions under which valuable innovations diffuse rapidly, we need to ensure that valuable biomedical enhancements quickly become available to all who want them. To do this will require institutional innovation, including, perhaps, modifications of intellectual property rights.
- The proper focus is not equality in the distribution of biomedical enhancements. Here, as elsewhere, equality is not of much, if any value in itself. What matters is: (1) avoiding inequalities that result in domination, exploitation, and exclusion, and (2) harnessing biomedical enhancements and other valuable innovations to reduce deprivation. The view that nobody should have an enhancement unless everybody can have it is just as absurd and morally repugnant as the view that nobody should be literate or have indoor plumbing or enough to eat unless everybody does.
- Much of the current debate about justice issues has been distorted by false framing assumptions about what sort of goods enhancements will be: that they will be expensive, zero-sum, personal goods, provided exclusively through the market. These assumptions overlook the fact that some of the most valuable biomedical enhancements will bring social benefits, and not just to those who possess them; that they will enable new forms of highly productive and rewarding cooperation; that governments may regard them as valuable enough to encourage or subsidize; and that their costs are likely to decrease over time, as with computers, cell phones, and prescription drugs when they go off patent.
- It is a serious mistake to think that the benefits of biomedical enhancements are limited to their direct benefits to those who have them. Some biomedical enhancements, including improvements in cognition and moral enhancements, will be of broad social benefit. This is true, in particular, of enhancements that are characterized by network effects and those that increase productivity. Overlooking the fact that enhancements can bring great social benefits stacks the deck against enhancements, pushing us toward an overly conservative or negative attitude toward them.
- Once we appreciate that some biomedical enhancements will bring broad social benefits, including increased productivity, we must abandon the comforting assumption that the risk of state-driven eugenics is a thing of the past. Government subsidization of biomedical enhancement may ease some of the problems of distributive justice, but it also raises the specter of mandatory enhancements.

The Enhancement Enterprise: Front Door Versus Back Door Enhancement

We've already crossed the threshold of the age of biomedical enhancement. This is hardly surprising, given the sort of creatures we are. Human beings are niche-constructors par excellence: We repeatedly alter our environment to suit our needs and preferences. In doing this we inevitably alter

ourselves as well. The new environments we create alter our social practices, our cultures, our biology, and even our identity. In other words, given that the environment we shape in turn shapes us, our niche-construction inevitably involves self-reconstruction. The only difference now is that for the first time we can *deliberately*, and in a *scientifically informed way*, change our selves.

As I argued in chapter 2, because of problems that result from our altering our environment, we may have to undertake biomedical interventions—for example, to cope with emerging pandemics or the effects of toxins in the environment or global warming. We may also have to undertake biomedical interventions to cope with some of the flaws in our biological design—for example, to correct for natural selection's insensitivity to problems that arise as we age. Finally, we may want to use biotechnologies to enhance certain capacities simply because doing so will improve our lives. Once we discard the fiction that the way we are now is permanent and optimal, we ought to take the possibilities of enhancement seriously.

I haven't tried to make a blanket "Case for Enhancement." Frankly, that would be stupid. Some enhancements—for some people, in some circumstances, if undertaken for certain reasons—will be a good idea, and some will be bad. We have to resist the urge for sweeping generalizations, for the false comfort of blanket endorsement or rejection. I do think I've succeeded in showing that efforts to make a "Case Against Enhancement" fail. There's no good reason to try to refrain from biomedical enhancements altogether.

The fact that we shouldn't reject biomedical enhancement across the board doesn't mean that anything goes. We've got

to learn to think in a more nuanced way that recognizes all the complexities. But we also have to make a choice, and we must make it very soon. We have to decide whether we're going to continue to let enhancements slip in the back door, willy-nilly, or whether we are going to embark on what I call the enhancement enterprise.

Embarking on the enhancement enterprise means allowing considerable freedom to private individuals and organizations to develop and choose to use enhancement technologies, including biomedical enhancement technologies. It also means devoting significant public resources to research that can be expected to result in enhancement technologies *and* to create a vigorous and informed public debate about the benefits and risks of such technologies. Just as important, it means developing effective and morally sensitive policies and institutions for coping with the challenges of enhancement.

A society that engages in the enhancement enterprise recognizes the *legitimacy* of biomedical enhancement, as one mode of enhancement among others, both as a personal aim that individuals may permissibly pursue and as a permissible kind of policy goal that must compete for public resources with other permissible policy goals. In its public policy, such a society rejects the view that biomedical enhancement per se is illegitimate, either because it is *enhancement*, rather than the treatment or prevention of disease, or because it uses *biomedical* technology or involves biological changes. By recognizing enhancement, including biomedical enhancement, as a legitimate aim, it implicitly rejects the ill-founded, sweeping generalization that the pursuit of enhancement betrays morally unacceptable motivations or bad character.

When a society undertakes the enhancement enterprise it thereby rejects the anti-enhancement position, the view that biomedical enhancements are to be avoided altogether. More positively, it commits itself to developing the moral and institutional resources needed to pursue enhancements responsibly.

Recognizing enhancement as a legitimate aim for individuals and for social policy makes a great deal of difference. It changes the way deliberations about biomedical enhancements are framed. One of the most important framing shifts is that now biomedical enhancement must compete fairly and openly with other social goals in the process of allocating resources. In contrast, in a society in which biomedical enhancement comes in through the back door, piggybacking on the treatment and prevention of disease, ever-greater amounts of social resources may flow to it but without any opportunity for democratic, scientifically informed decisions about how valuable it is compared with other goals. Acknowledging the legitimacy of biomedical enhancements takes the "no enhancements" alternative off the table, so far as social policy is concerned. But in doing so it *increases* our ability to say no to particular biomedical enhancements, either by prohibiting their use or by refusing to support their development with public funding.

A final point about the notion of legitimacy is worth making. Regarding biomedical enhancement as a legitimate social aim doesn't imply that all individuals are expected to agree that it *is* an appropriate aim for social policy, much less that all must regard it as something they ought to undertake for themselves or their children. In any pluralistic society, there will be some legitimate social policy aims that are

rejected by some citizens. Engaging in the enhancement enterprise means giving individuals considerable freedom *not* to pursue enhancements.

At some point, however, the implementation of a social policy aimed at achieving widespread use of a particular biomedical enhancement may come into conflict with some individuals' values. This is nothing new, of course. For example, educational policies and policies regarding medical care and compulsory vaccination for children sometimes conflict with parental preferences and values.

In my judgment, it will probably be quite a long time before we have biomedical enhancements that are both powerful enough and safe enough for it to make sense to develop social policies to try to ensure their large-scale use. For the foreseeable future, pursuing the enhancement enterprise will largely consist of trying to make good decisions on four issues. (1) How many resources ought to be devoted to research on various types of enhancements? (2) How can such research be conducted safely and ethically? (3) How can we effectively monitor the effects of enhancements that are being used, either as spin-offs from treatment and prevention of disease or explicitly as enhancements? (4) How can we reliably identify which enhancements are safe and effective, and make them more accessible to those who want them and could benefit from them?

One aim of this book has been to try to determine whether the most serious worries about biomedical enhancement—even if they are insufficient to rule out enhancement across the board—give us good reason to refrain from embarking on the enhancement enterprise. My answer is: No, not at present anyway. But I also hope I've made a strong case for a more positive claim: There are powerful reasons in favor of

a society like ours embarking on the enhancement enterprise, and there are no objections to enhancement that are sufficient to outweigh them, at least at the present time.

There are several reasons in favor of the enhancement enterprise. First, once we get beyond the dubious assumptions that enhancements will be predominantly zero-sum competitive goods or expressions of bad character, it becomes clear that the potential social benefits of pursuing the enhancement enterprise are great. Second, the risks of living in a society in which enhancements continue to come in through the back door, as new applications of treatment technologies, or through research conducted in countries with inadequate controls on human experimentation, are unacceptably high, given the alternative of pursuing the enhancement enterprise. A third advantage of pursuing the enhancement enterprise is that doing so would facilitate institutional efforts to control enhancements in the name of justice, such as proposals for modifying intellectual property rights like the one I sketched in chapter 6. Fourth, recognizing the legitimacy of enhancement avoids inappropriate medicalization: Once we recognize the legitimacy of enhancement as a familiar and admirable human activity, there's no need to pretend that biomedical interventions that are really aimed at enhancement are treatments of diseases. That reduces the unfortunate tendency to multiply maladies without good reason.

At present, to get legal access to cognitive enhancement drugs, you have to convince physicians (and perhaps yourself as well) that you have a disease—attention deficit disorder, narcolepsy, Alzheimer's dementia, or some other cognitive disorder. There's a lot to be said for being in a society where efforts to improve our capacities don't require

us to view every gap between the way we are now and the way we desire to be as evidence of disease.

Consider the case of therapeutic drugs now being used for cognitive enhancement in people who are cognitively normal. Where enhancement is not recognized as legitimate, those with the money to pay black market prices or the social connections and education to persuade physicians to prescribe Ritalin or other drugs "off label" will have access; others will not. Ironically, prohibiting enhancements out of fear that they will only be available to the rich exacerbates problems of distributive injustice. In a society that recognizes the legitimacy of enhancement, new regulatory institutions can be developed to facilitate the wider and more rapid diffusion of highly beneficial and safe enhancements, in part by eliminating overmedicalization.

Those who worry about unintended bad medical or social consequences of enhancement should endorse the enhancement enterprise. We're much more likely to make reasonable judgments about the risks of various enhancements if we can subject them to regulatory scrutiny and political debate. Consider the case of Michelle's use of cognitive enhancement drugs. Like a growing number of other students, Michelle is engaging in an uncontrolled, unmonitored experiment. Stanford bioethicist Henry Greely and his colleagues have argued persuasively that the use of such drugs for enhancement should be studied in large-scale, long-term, clinical trials. This is not likely to occur in any systematic way, so long as enhancement is viewed as illegitimate. The hardest work in the ethics of enhancement can begin once we've reached a consensus that biomedical enhancement can be a legitimate and even noble kind of activity.