

**Reading Enhancement** (November 10)**Pinker: The Designer Baby Myth** (2007)

*Pinker focuses on widespread fear of genetic engineering-- prenatal gene therapy for altering the characteristics of future generations.*

With the discovery of the structure of DNA in 1957 a new stage of eugenics-phobia began: a popular wave of fear of gene therapy as a possible source of intervention into the evolution of the human species.

There is some historical basis for the fear: individuals and couples have always concerned themselves with the health and well being of their progeny, and indeed various societies and cultures have done so as well: consider arranged marriages in some cultures, or Plato's recommendation (in *The Statesman*) that the wise ruler should engage in various breeding projects, producing a line of aggressive warriors for the defense of the state. In recent times, pre-implantation genetic testing has allowed for screening for genetic diseases in IVF procedures.

But: PIGD is not gene therapy: and probably never will be, for several reasons:  
 (1) predictions about the future are seldom right (especially about uses of technology);  
 (2) most genetic influences on behavior are multifactorial (and unpredictable);  
 (3) most parents have more sense than to desire it.  
 It is unpredictable, uncomfortable and unnatural.

**Allen: Growth Hormone Therapy for the Disability of Short Stature** (1992)

There are many instances of a therapy developed for treating medical conditions which is then applied outside of the area of medical necessity/justifiability. The use of human growth hormone for children who are growth hormone deficient is a recent candidate for this expansion of the original use: should it be used for people who may be short, but do NOT suffer from growth hormone deficiency?

1. Allen suggests that the concepts of disease and handicap do not sufficiently distinguish children who are short because of growth hormone deficiency from those who are short because, eg, of short parents: both suffer from the (socially recognized) disability of short stature, which leads to some discomfort and some loss of social status. (*In boys, at least: I wonder how many girls are treated for 'short stature' disability...*)

2. We should do risk/benefit studies to make sure it is safe.

3. We should allocate it equitably for children outside of the 'normal opportunity range.' (It should not be available to people who have already attained normal height.) So we'd need to answer the question "to what maximum height should any child be entitled to receive treatment via public support?"

4. Failure to follow that guideline would further social inequalities by making height a societal advantage to the well off. We should determine starting and when to discontinue the therapy on the basis of the degree of short-stature disability, for whatever cause.

**Daniels: The genome Project, Individual Difference and Just Health Care (1994)**

The human genome project will give us new information about individual variation.

The conceptual problem: Can we maintain the distinction between medical therapies that treat and those that enhance in the face of new genetic information that lets us pinpoint genetic contributions to traits we might want to alter?

The political problem: We have social obligations to treat disease and disability because of their impact on opportunity. Does that obligation extend to other conditions that create an inequality in opportunity?

Many medical technologies can alter people in ways they may wish to be changed. Do we have a social obligation to meet such preferences? Is it an entitlement? What should insurance cover?

a--we are obligated to meet all preferences? Unrealistic.

b--we should underwrite the removal of conditions that disadvantage? Too far left for Daniels. "It is not medicine's task to make everyone an equal competitor."

c--our social obligation extends only to disease and disability.

But: cf. Allen: is the distinction between diseased/disabled and 'normal' conceptually defensible?

Daniels points out that our standard model for thinking about such things does not presuppose that talents, skills and other capabilities are evenly distributed--only that there is some range of capabilities that everyone might be expected to have. He considers our social obligation to extend only to that point.

(Of course, he adds, there are reasons other than providing equality of opportunity for providing medical services; and he lists a few--including underwriting an inexpensive treatment for improving cognitive capacities in children, should one become available.)

**Savelescu: Genetic Interventions and The Ethics of Enhancement of Human Beings**

*Savelescu takes on Sandel and argues that we have an obligation to enhance ourselves and our children*

There are a lot of things people do to themselves which increase their pleasure in life. And science is constantly inventing new and novel things for therapy that could easily be imagined to eventually lead to the possibility of engineering happier people. Should we?

1. If it would be wrong to neglect to do something that would sustain a child's naturally-produced superior intellect, it would be equally wrong to fail to do something that would produce a superior intellect in a child. Reason: the consequences are the same in each case.

*(Sound familiar? this is a variation of the Raphael omission/commission argument)*

2. There is no morally relevant difference between an environmental enhancement of the sort we continually invoke for our children, and a genetic enhancement. Its irreversibility is not a reason to forgo the improvement.

3. There is the same justification for enhancement as there is for treating disease: the goodness of enabling us to live well. Some alterations may even improve our moral character!

4. Argument from liberty: We should allow individuals to lead the life that is best for themselves, unless it harms others. Of course, the liberal state should take steps to insure that any intervention is safe, that it will not harm others, and that it is distributed/available according to principles of justice.

5. Argument from procreative liberty: It is a bit problematic when children / future children are involved: but we should extend procreative liberty (*cf. Robertson*) to enhancement.

To the three conditions on liberty / procreative liberty he lists, Savelescu adds two more: there must be some plausibility to the choices such that they will contribute to the future well being of the child; and the interventions must be consistent with development of autonomy and a reasonable range of future life plans for the child.

Replies to objections:

Playing god: if god wishes the best for us, and we intervene to improve our lives (as we do now with vaccinations or cancer treatments) we are helping, not thwarting. Because of our degree of ignorance, we should be sure all our interventions are safe and positive, so adequate research is required. And it's ok to be more selective than evolution has been. It's pretty random, so far.

Genetic discrimination/ social disparities: enhancement will create a two-tiered society, where one group (the unenhanced? or the enhanced?) will be discriminated against. But: social remediation, not refusing enhancement, is the best answer to that.

Standardization: don't be silly. We can create children with better opportunities for happiness, but we will never remove all variation and novelty.

Against human nature: What is most human about us is 'our rationality, our capacity to make normative judgments and to act on the basis of reasons.' To be human is to be better.

Self-defeating because it alters the playing field for positional goods: No, not necessarily; and anyway, not all enhancements are positional or intended to be.

Conclusion: there is a natural progression from treating disease to preventing disease to technologically eliminating the possibility of disease to protecting well being to enhancing well being. The only logical alternative is to avoid the whole progression.

(= a variation on the 'slippery slope': if you've started down a path, it is artificial to try to draw a line about where you should stop.)

### **Sandel: The Case Against Perfection (2004)**

*Sandel seems to take a 'virtue ethics' line against enhancement: embracing its premises would undermine some of the virtues that make us most tolerable as fellow citizens.*

So what IS wrong with cloning?

If it were safer, would we still object?

Does it 'deny a child the right to an open future?' (=the autonomy argument) But: (a) none of us choose our genetic inheritance now, anyway, and it doesn't threaten our autonomy; and (b) really, our problem with 'designer children' seems to be not so much with the effect (ie reduced autonomy) on the child--but with the parental motivation for

doing it in the first place. We conflate it with personal enhancement to 'lift themselves above the norm,' using things initially designed for medical purposes for non-medical means, and something about that worries us.

So what is the problem with enhancement?

Some enhanceables:

(a) muscles: if it were safe, would muscle-enhancing genetic therapy ban us from sports? (*Consider the case of the guy with mechanically enhanced legs and the recent Olympic games....*) Why does it seem more unfair than natural genetic variation?

(b) memory: improved cognitive function seems a good idea. Why do we object: because the unenhanced poor would be denied the benefits, or because the enhanced wealthy would be dehumanized? Really, our objection may just be one to the financial barrier to access.

(c) height: (*see the Allen article, above*) There is the 'arms-race' objection; but mainly we just don't like to live in a society where people spend a fortune to make healthy kids a few inches taller.

(d) sex selection: we can constrain the range of options so as to avoid many ethical objections. But maybe there is a key here: all these enhancements undermine our **capacity to act freely, succeed by our own efforts, and consider ourselves responsible for who we are and what we do.**

Is our moral response to enhancement a response to the diminished agency of the person whose achievement is enhanced?? Or: is it that it represents a drive to mastery, one more Promethean image of control?

Contrast: giftedness and grace: v. willfulness and control. We are never better off insofar as we foster the illusion that we CAN control everything about our lives.

The dark shadow of eugenics: Is it only coercion that gave eugenics a bad name? (Gives many examples from contemporary fertility practices that constitute 'positive' eugenics...) Sandel argues that no: the problem is with the 'triumph of willfulness over giftedness, dominion over reverence, of molding over beholding.'

What is under threat is three key features of our moral landscape: humility, responsibility and solidarity.

### **Bailey: Anyone for Tennis at the Age of 150?**

*Bailey expresses surprise at the coalition of left and right against research that he suspects will eventually be of great benefit to us all.*

Sketches a utopian vision of a future with extended life and health, and castigates those on both the left and the right who stand in the way of research that might improve the length and quality of life (= the "bioconservatives").