Designing People

A Post-Human Future?

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1 Introduction

The advent of genetic technologies has sparked a variety of questions about their legal, ethical, and social consequences. Issues of discrimination, better medicine, moral status, access, familial obligations, ethnic affiliations, and parental duties are discussed in relation to genetic testing, gene transfer, and genetic enhancement. In the midst of new discoveries and new debates, bioethicists strive to achieve a balance between a responsibility to contemplate theoretical possibilities that might result from current technological advances and a responsibility to convey whether such theoretical possibilities could come to be. (Parens, 2004) The purpose of this chapter is to argue that bioethicists dealing with genetic enhancement technologies are failing to achieve this balance. This failure stems, in part, from an inadequate understanding of human biology. Not only do proponents and critics of genetic enhancement have erroneous presuppositions about the role of genes in human biology, they also espouse incorrect beliefs about knowledge production in the biological sciences. I will conclude by showing some of the problematic consequences that might follow from failing to achieve this balance between a concern for theoretical possibilities related to genetic enhancement and a responsibility to evaluate the feasibility of those promises.

2 On Our Way to the Post-Human?

Human genetic enhancement is often defined as the manipulation of genes in order to improve what are seen as normal human characteristics – physical, psychological, intellectual, and moral – beyond what is necessary to restore or sustain good health. This enhancement can be attempted through either somatic modifications – thus affecting only the particular individual undergoing the intervention – or germ-line
or inheritable genetic modification – thus affecting future generations. Because my
discussion is directed to the possibility of designing humans so as to create a new
species of post-humans, i.e., beings whose capacities so greatly exceed current
human ones that we cannot longer recognize them as human, I will direct my com-
ments mainly toward this last type of genetic intervention.

As with many other discussions of biotechnology, this one has also become
polarized between those who believe that the development and use of any technology
to enhance human capabilities and traits is admirable, (Harris, 2004; Hughes, 2004;
Bostrom, 2003; Sock, 2002; Silver, 1997) even obligatory, (Savulescu, 2005, and
Cerqui and Warwick in this volume, though Cerqui is actually critical of such posi-
tion) and those who argue that these kinds of interventions threaten human dignity
(Habermas, 2003; Kass, 2003; Fukuyama, 2002; Annas et al., 2002). In both cases,
however, there seems to be an agreement that genetic enhancement of human
beings, far from being something difficult, maybe even a matter of science fiction
for the most part, is only a matter of time. Thus, the debate centers on risks and
benefits, the need for regulation, or the importance of funding these technologies.

I contend here that both those who oppose genetic enhancement technologies,
and those who welcome them, have an inadequate understanding of human biology.
First, both groups hold incorrect presuppositions about the role of genes in the
development of human traits and behaviors. Moreover, both ignore the relevance of
our social environment as a causal contributor to judgments about such traits. But,
their misunderstanding of human biology also results from their taking for granted
particular presuppositions about what biological theories are telling us about
human nature.

Of course, it is hardly surprising that those involved in debates about the rela-
tionship between genetics and human traits and behaviors agree that genetic deter-
minism is false, even though sometimes it is difficult to make sense of their claims
if premised on the rejection of such determinism. The kinds of determinism they
tend to reject are what some have called the “complete information” and the “inter-
vention is useless” versions of genetic determinism (Kaplan, 2000, 11–12). The
first version affirms that our genes dictate everything about us. The second strand
asserts that for traits that have a genetic component, intervention is powerless.
There is however, another version of genetic determinism that is presupposed by
many of those who do not see themselves as genetic determinists. In this version,
traits with even partial genetic etiologies are best understood as primarily genetic,
and only through directed intervention can we avoid or control the expression of
genes for such traits. Even when genes are not determining they are perceived as
more necessary or more fundamental than other biological, environmental, and
social counterparts (Gannet, 1997, 403–419).

Without a presupposition of genetic determinism it is difficult to make sense of
many of the arguments used in the debates over human genetic enhancement and
the creation of the post-human. Thus, some have claimed that any kind of genetic
manipulation forecloses a future that would otherwise be underdetermined because
of the natural genetic lottery. When we design human beings by any kind of prenatal
genetic intervention, some believe, we are also determining their future. In the