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

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P. E. Vermaas et al. (eds.), *Philosophy and Design*.

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 comments 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 position) 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 relationship between genetics and human traits and behaviors agree that genetic determinism 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 "intervention 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