

## Chapter 2

# Human Perfection and Contemporary Enhancement Technologies

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### ABSTRACT

*Human perfection has been one of the main objectives of the human species since the appearance of Homo sapiens, but contemporary biomedical technologies represent a promise to achieve it in the near future. In view of the new possibilities offered by new technologies, a scientific-philosophical theoretical debate has emerged between those who are in favor of its use on humanity for non-therapeutic purposes (posthumanists) and those who reject it (bioconservatives). In this chapter, the so-called “enhancement technologies,” the problems derived from their use with the aim of radically altering human abilities, and some of the most recent practical cases that have transcended the theoretical debate about their legitimacy are analyzed.*

### INTRODUCTION

The 20th century and the beginning of the 21st century have seen the theoretical and practical maximization of the interest of the human being to perfect itself. With the proposal of “eugenics” as a science in the late nineteenth century, the first half of the twentieth century was characterized—through the work of governments as diverse as the British, American, and German—by the state struggle against racial degeneration and the search for a qualitative improvement of human abilities. Although the eugenics movement ceased its activity after the Holocaust and the discovery of the Nazi experiments, “the human enhancement dream” remained active in the international scientific sphere (Kevles, 1985; Parra-Sáez, 2018a). Thus, the second half of the 20th century witnessed—due to historical events such as the discovery of DNA by Watson and Crick in 1953 and the development of advanced biomedical techniques such as genetic engineering in the ‘70s—the emergence of new possibilities and problems associated with them

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in the field of human enhancement and technology. These new biomedical techniques were developed in the beginning with the aim of detecting pathologies and diseases—most of them with genetic-hereditary nature—for their later containment or, in the best of cases, elimination.

To a greater or lesser extent, the scientific-medical and ethical-political spheres have accepted the therapeutic purpose of the use of biotechnology on the human being. However, in recent decades, the possibility of expanding its use to non-therapeutic objectives has been proposed from various scientific-philosophical schools of thought, especially from posthumanism and transhumanism. In some cases, this possibility has even been proposed as a need or obligation (Savulescu, 2001). In this way, the purpose of this idea is to focus on the use of new biomedical technologies towards the improvement of “positive abilities” (non-pathological) of the human being, that is, its physical structure (resistance or muscular recovery), its cognitive structure (intelligence and data assimilation), its moral and behavioral capacity (decrease of violence and increase of empathy) and, of course, the extension of its life. This proposal has generated a broad debate that encompasses a great diversity of research fields such as bioethics, politics, medicine, biology, technology, and neuroscience—among others—in which two great scientific and philosophical perspectives are confronted: those who are in favor of the use of biotechnology in order to perfect humanity (posthumanism) and those who are openly against it (bioconservatism).

The main purpose of this chapter—beyond showing the theoretical-philosophical debate between posthumanists and bioconservatives thinkers that is usually collected in articles and publications—is to clarify what are the new technologies of human enhancement, how they work, and what are the possible benefits and risks of its application. In recent years, the concern for genetic engineering is giving way to the emergence of new techniques that have overcome this theoretical debate to enter fully into our daily lives. A good example is the latest generation of cochlear implants and the cyborg technology. This is one of the most interesting technologies, since there are practical cases in which cybernetic implants have been installed on human beings with the aim of recovering natural senses such as vision or hearing abilities (therapeutic intervention), which have represented for some thinkers—of conservative persuasion—a step towards the generally rejected “perfectionist biotechnological enhancement.” In this way, the vertiginous development of this type of technology has completely surpassed the theoretical stage about the legitimacy of its use, ushering in a practical stage wrapped in uncertainty.

## **BACKGROUND**

The last third of the 19th century was characterized by the extension of eugenics thinking in the scientific, political, and social fields of the Victorian United Kingdom. It was the British anthropologist and geographer Sir Francis Galton, cousin of Charles Darwin, who in his book *Inquiries into Human Faculty and Its Development* (Galton, 1907) proposed “eugenics” as the only science capable of achieving the desired enhancement of human abilities.<sup>1</sup> Following this ideology, several countries around the world—especially Great Britain, the United States, and Germany—began in the first half of the 20th century a chain of negative eugenic policies based on segregation, racism, and the sterilization of immigrants or disabled people with the fundamental objective of preventing the racial degeneration of their people.

Following the success of numerous eugenic laws such as the “Deficiency Act” of 1913 in Great Britain, the “Immigration Act” of 1924 in the United States, and the laws “For the Prevention of Genetically Diseased Offspring” (*Gesetz zur Verhütung erbkranken Nachwuchses*) and “For the Protection of German Blood and German Honor” (*Gesetz zum Schutze des deutschen Blutes und der deutschen*

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