

GENETHICS – THE DRIVE

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■ ABSTRACT

The path as a bioethicist began with questions around genetics and human enhancement. This journey – rooted in personal and professional curiosity—led me to explore how we might strive for betterment in ways that remain ethically sound, human, and humane. This paper briefly reflects on that professional trajectory.

Key words: human enhancement, genetics, bioethics, Jennifer Doudna

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The code of life? The organizing power of the double helix? Are we capable of intervening in it? Is it ethically permissible? If yes, how, to what extent, and why? Why is it important to do it at all?

While posing these questions is straightforward, providing comprehensive answers presents a significant challenge. In my research trajectory, I focused on such questions that helped me recognize how complex such apparently simple issues are—often attributed to ‘yes or no’ questions—yet they are not that plain. As one becomes increasingly familiar with how processes work and what they can impact, their multifaceted and often morally questionable nature becomes clear. My research engagement with genetics and bioethics began with these dilemmas.

I encountered the field of bioethics during the final years of my undergraduate studies. Under the mentorship of Professor Tibor Szolcsányi, I had the opportunity to study bioethics in depth and integrate it into my scholarly perspective and also complete my thesis work (“Free Will and Euthanasia”) and later my doctoral dissertation (“Moral Issues of Human Enhancement and Transhumanism”).

As I became acquainted with applied ethics and delved more deeply into its complexities, I felt a calling and realized this is the core of both my scholarly focus and professional motivation. My exploration led me to genetics and its associated moral issues, which led me to other topics that may appear as bioethics-related intersecting areas, such as

transhumanism, the idea of uploading human consciousness/mind into artificial environments, artificial reproductive technologies, end-of-life issues, and, more recently, artificial intelligence. Although these topics are not always obviously connected, they share a specific common underlying organizing power from my perspective. The invitation to reflect on “The Personal Behind Our Bioethics” led me to contemplate my researcher journey and observe it from a broader perspective, which led to the recognition that this and also my internal organizing principle is: enhancement. I do not know whether the topics led me to this underlying essence or just the other way around, it was an intuition that drove me toward these areas of bioethics. It’s not that important really. My aim is to contribute substantively to our understanding of ethically grounded pathways for human enhancement. As the history of science and the scientific community demonstrates, it is necessary to draw boundaries and set criteria when technology and science are used to refine human life. For instance, the first Asilomar conference in 1975 was held because of the novel, uncertain or potential effects and consequences of the recombinant DNA technology. (Berg 2008) Jennifer Doudna, who was awarded the Nobel Prize in 2020 for her work on CRISPR technology, co-authored with her former PhD student *A Crack in Creation: Gene Editing and the Unthinkable Power to Control Evolution*, discussing the development of the technology, its potential, and critically, the

ethical responsibilities of researchers concerning CRISPR and technological innovation in general. Fortunately, nowadays numerous other examples further illustrate this trend.

Bioethics emerges as a seemingly restrictive, yet in reality, a more advocacy-oriented scientific field that consciously seeks to draw attention to challenges and dangers that may not be immediately obvious, illuminating the path of progress and development from multiple perspectives.

This may relate to the wider environment – how human activity affects it, how its impact can be reduced, and strategies for maintaining ecological balance and mitigating the risk of climate disaster, while simultaneously respecting the natural environment, all while respecting the living environment (reports of the Club of Rome, e.g. the first: Meadows et al. 1972). But even if we focus solely on human-to-human interactions and the role of science in them - especially concerning human personal wellbeing not just in the context of healing but also enhancement - it is essential to take responsibility and represent both individual and societal interests (Beauchamp 2019). At the same time, it is crucial to adhere to the core moral principles of bioethics to remain both human and humane.

As a bioethicist, I strive to represent holistic and complex perspectives, and my objective is to explore how individuals can enhance themselves if they choose to, while ensuring that societal and personal differences remain manageable and morally acceptable. These enhancement techniques are not limited to artificial interventions but also include “what can I do for myself” forms of self-enhancement – non-invasive and widely available ones as well.

My continued focus on bioethics reflects its integral role in shaping scientific methods, diagnostic practices, and therapeutic innovations beyond the wider issues of applied ethics.

Looking back at the history and toward the future of my research and its aims, my intention is to identify, clarify, evaluate the advantages and disadvantages, and gather all possible and relevant aspects – to represent the interests of individuals and societies, while also proactively considering the broader environment. All of this serves to prevent the unwanted and unintended consequences of using science and technology. This is an interdisciplinary task to which I contribute not only my professional knowledge but also my passion.

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