

The Future of Human Nature: Drawing the Line Between Genetic Enhancements and Genetic Therapy

Asher Joy

In a Tortoiseshell: *In this excerpt of her essay on genetic enhancement and therapy, Asher Joy exemplifies how to create a **motivated thesis** by engaging in a complex, scientific debate. Drawing on interdisciplinary sources, Asher adds her own contribution to the debate at hand by pointing out a particular issue with the discourse surrounding genetic modifications and discusses the implications of such an error.*

Excerpt

As the age of genetic engineering looms ahead, the future of humanity seems at stake. In 2018, Dr. He Jiankui shocked the world when he announced that he had created the first genetically modified human by altering a gene in the embryos of twins Lulu and Nana before implanting the embryos in the mother's womb, with the goal of making the babies resistant to HIV infection (Kolata et al.). Particularly salient in the immediate condemnation of this announcement were scientists, such as Dr. Shoukhrat Mitalipov, who expressed outrage at Jiankui's actions arguing that he "did not do anything medically necessary" because such genetic alterations do not constitute a "seriously unmet need," as there are other non-invasive ways of preventing HIV infection (qtd. in Kolata et al). Similar sentiment arises from public opinion, such as CNN editor Jack Guy, who fears Jiankui's experiment sets the stage of genetic engineering for "non-therapeutic purposes" (Guy). The anxieties about using genetic engineering for the sake of genetic enhancements instead of therapeutic purposes align with the opinions of the President's Council on Bioethics, professor George Annas, and Dr. Leon Kass, who consider genetic enhancement, or the "directed use of biotechnical power to alter...the 'normal' workings of the human body and psyche, to augment or improve their native capacities and performances" (Kass et al. 13), to be reprehensible because genetic modification to better human abilities threatens "fundamental features of human nature" (Kass 123) by intervening in the natural endowment of the human genome. This suggests that these critics understand human biology as immutable.

However, such disavowal of genetic enhancements on the basis that human biology is inviolable yet endorsement of genetic therapy on existing individuals, or "the use of biotechnical power to treat individuals with known disabilities, or impairments, in an attempt to restore them to a normal state of health and fitness" (Kass et al. 13), reveals a contradiction to their belief in an

inviolable human biology. This contradiction suggests that disabled or impaired individuals do not yet meet an *acceptable* biological standard of human nature. Such a belief positions human nature as one that is a biocultural construct with the goal of maintaining a static, universal status quo in humanity—one that ignores that both the concepts of “humans” and “nature” are defined not just by biology but through social, cultural, and environmental factors, causing them to be dynamic rather than stable, immutable constructs. The anxieties about violating human nature through genetic enhancement, contrasted with the relative acceptance of genetic therapy, reveal a reliance on a prejudicial, biocultural construct of human nature—a social construct which demeans those with disabilities or impairments, suggesting that their eligibility for genetic therapy implies that their genetic endowment does not meet an acceptable standard of human nature. Rather, examination of both “human” and “nature” as dynamic entities, the product of cultural, environmental, and genetic factors, reveals that the construct of “human nature” is constantly expanding and so does not belong in the genetic engineering debate about the acceptability of “enhancement” or “therapy.”

Author Commentary

Asher Joy

This excerpt is from my research paper “The Future of Human Nature: Drawing the Line Between Genetic Enhancements and Genetic Therapy” written for my writing seminar, “The Posthuman.” In my essay, I explore arguments against genetic engineering on the basis that it is a violation of human nature. My thesis centers around the fact that arguments regarding “human nature” do not belong in the context of the ethics of genetic engineering.

My research began laboriously, as I poured through numerous articles discussing rather blunt “yes” or “no” answers to the ethics of genetic engineering. Nevertheless, I found it interesting that I encountered so many arguments vehemently against the idea. However, rather than rehashing this theme, I wanted to play devil’s advocate. Using peer reviewed articles, I found that many arguments revolved around several shared sources that strongly opposed genetic engineering. Upon examining these specific sources, I realized that they all touted this word “human nature” as if it were something that needed to be defended against the wiles of mankind. I then narrowed my argument to examine exactly what was this *human* and his/her *nature* that seemed so invincible.

At this point, I was still formulating a “yes” or “no” (although I was leaning toward the “yes”) of the ethics of genetic engineering. Through this mindset, I postulated: what if I do support genetic engineering, what will happen then? This move was rather difficult, considering I felt that my voice would not be acknowledged in comparison to such scholars. Nevertheless, using this logic, I suddenly realized that the sources I had been working with *already* supported some sort of genetic engineering—genetic therapy. However, in this case such therapy was not a violation of human nature. Using this new information as the crux of my argument, my writing seminar professor helped me transform my argument from a “yes” or “no” response to rather one that acknowledged that there was something much more complex involved in the argument that specifically used *human nature* as a reason to disavow genetic engineering.

Through this move, along with countless revisions, I was able to formulate a thesis that relied not on a simple response, but rather one that required much more complicated logic and reasoning. The revision process was especially difficult, as I wanted to make sure that I was properly representing my sources and they themselves presented conflicting details as to their argument. I also wanted to acknowledge that they also admitted some of the arguments that I wanted to include to use against their logic. Nevertheless, I still held onto the central theme that

they supported genetic engineering while also disavowing genetic therapy and moved on to finding sources that would further help me establish my own voice in the conversation.

*Editor Commentary**Alex Charles*

Entering into a scholarly debate with experts in an academic field can be uncomfortable, difficult, and complicated. The works of such experts are always sophisticated and tidy. It often takes hours of research simply to understand their intricate arguments. Moreover, it requires even more research and preparation to take a multitude of scholars and use their opinions as building blocks by which you can create a unique essay of your own and contribute to the field of existing work. In her essay, however, Asher Joy does exactly that in two cogent, succinct paragraphs.

Asher explains an existing debate in the field of genetic enhancement and therapy and uses a third source, Donna Haraway, to expose and explain the flaws in the discourse surrounding genetic modifications. Consequently, Asher gives her essay a clear motive—the contribution which her paper makes to the work of geneticists. Asher does not merely summarize the opinions of different scientists, but rather she creates a new lens with an additional author, through which she is able to find a peculiarity in the debate at hand.

In her author commentary, Asher acknowledges that at first, she was nervous that her opinion “would not be acknowledged in comparison to such scholars.” However, Asher was able to combat this fear through the tactical positioning of different scholars. This strategy is known in the Writing Center as a Gaipa move, and in this case, Asher uses a move called “crossbreeding with something new.” This positioning is predicated on the notion that the author reinterprets an existing conversation or debate by using new source material to establish an original framework.

In her essay, Asher executes this complicated Gaipa move by first explaining the puzzle she found in her research—the apparent hypocrisy of scientists to condemn genetic enhancement but support genetic therapy. Brilliantly, Asher also delineates between her scholars, those who support gene enhancement and those who do not, thus creating the impression that more evidence is required in order to claim which side, if any, is correct in their argumentation. She then dives deeper into this incongruity surrounding human biology, using a new framework of human biology as “discourse” to arrive at the conclusion that the error of scholars is in their incorporation of the idea of “human nature.” Consequently, Asher is able to make a significant contribution—one supported by the use of an additional outside source—to a stagnated debate over bioethics.

Professor Commentary

Professor Marina Fedosik, Princeton Writing Program

Asher's essay "The Future of Human Nature: Drawing the Line Between Genetic Enhancements and Genetic Therapy" grew out of her interest in genetic engineering. To narrow her interest down to a feasible motive, she decided to look at a specific experiment that provoked a heated discussion both in popular culture and among regulatory bodies and scientists. Asher is using cultural studies approaches and is drawing on sources from different disciplines as she writes to understand the polarization of conversation about genetic engineering. She enters a scholarly conversation by challenging an assumption shared by two bioethicists and pointing out the reliance of their arguments on a slippery key term: "human nature." Asher is establishing this layer of motive by naming a bias that warrants an intervention in the conversation: the scholars rely on the concept of "immutable biology" to justify resistance to genetic enhancement, yet simultaneously they conceive of biology as in need of remediation when approving of genetic therapy. This clearly named insufficiency opens up space for Asher's own voice. She can now respond to other scholars by developing a complex idea of her own in order to address the limits of their thinking.

Asher's thesis has several conceptual layers. The overarching claim that critiques the political use of the term "human nature" is further complicated by an explanation of different ways we can conceive of biology. The essay draws on Donna Haraway's understanding of biology as a discourse and explains why "human nature" is an inadequate term for a discussion of genetic engineering and therapy ethics. The thesis of this essay is a compelling outcome of analysis that contributes to an ongoing conversation by transcending the positions already established within it. Asher refines the established methodology and directs our attention towards a new direction in thinking about issues in genetic engineering.

Works Cited

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Bios

Asher Joy '23 was born and raised in Greensburg, Pennsylvania. She plans to study economics and maybe get a certificate in finance. When she's not studying, she enjoys working out, eating, and sleeping. She wrote this essay as a first-year.

Alex Charles '22 is a prospective Woodrow Wilson major who plans on pursuing a Statistics and Machine Learning certificate. On campus he enjoys working with students in the Writing Center, coaching in the Dillon Youth Basketball league, and competing on the University's men's soccer team. He wrote this as a sophomore.