

Analysing genetic engineering with reference to plato philosophy essay



**ASSIGN
BUSTER**

By definition, genetic engineering is the altering of the genetic structure of an organism by artificial means, to obtain the most desirable traits. Despite the numerous bioethical issues, scientists are constantly on the lookout for ways to improve human qualities such as intelligence, physical abilities, aesthetic appeal, or resistance to certain detrimental substances. There are many who feel that human need and compulsion is far more dominant than one's obligation to adhere to strict morals. Furthermore, there are strong opinions from both sides of the argument, as some believe that human genetic engineering is a form of improving mankind while others believe that it is morally inappropriate, as it crosses a threshold where we "Play God." Lives could be changed, genes could be altered, and the entire human race could be revolutionized.

The suggestion of eugenics first emerged in Plato's generation. Plato's Republic suggested that the group of Guardians should breed selectively. The Guardians will have families in common. Their children will be raised in common, and most importantly, they will not be randomly conceived. It was crucial that the children were bred according to the most desirable traits to become the best offspring, to strengthen the future of the Guardians. Every year, a breeding committee is selected to run a fertility festival. Suitable mates are selected by the state during one's child bearing years through a lottery ticket. This idea that humans should be bred similarly as animals was referred to as "eugenics."

THESIS

Plato justifies his desires for eugenics through emphasizing the benefits to the future generations. It is undeniable that the general concept of eugenics

<https://assignbuster.com/analysing-genetic-engineering-with-reference-to-plato-philosophy-essay/>

is to alter the human race for the greater good, but it is crucial to be aware of the consequences that this process contains. It is necessary to conserve human diversity rather than homogenize the population through abolishing the uses of human genetic engineering. The usage of human genetic engineering should be hindered due to the numerous controversies it brings about as well as the endangerment of the human species as a whole. Furthermore, human genetic engineering raises many moral distresses towards the values of the disabled, a parent's rights to alter the genes of a child, aesthetic appeal, technological advances, cloning, and the risks. Ethicists have predicted that large margins of error will be achieved by activities which are related to unnatural processes such as the tampering with the roots of human nature. Moreover, the lack of technological expertise suggests that even the most miniscule error poses could lead to unbearable consequences in this generation as well as the future generations. The process of putting eugenics into practice is much more complicated and dangerous than hypothesized. As a result, the authority to genetically alter life for the sake of societal progressions of humans is substantially questioned.

DISABILITIES

Technological advantages as time progressed allowed humans to fantasize about putting the idea of human genetic engineering into practice.

Undesirable traits will be lost and only the exceptional traits will reside among the human population. An article entitled " Scientists Playing God? We should Rejoice" by Minette Marrin explains the optimistic facts of eugenics and the sheer volume of benefits attained from removing

disabilities. Marrin states, “ And what is appealing about this early screening is that... abortion and late abortion will be less frequently used in dealing with serious defects and disabilities.” Although it is true that it would be easier to get rid of a “ tiny collection of cells”, it cannot be considered as a proper solution. Whether one decides to abort a “ tiny collection of cells” or a multi-month old fetus is nonetheless regarded as a decision to prevent birth due to genetic disabilities. While it is generally perceived to be true that people would prefer not to be born with a disability, Simone Apis of the British Council of Disabled People suggests that there are many people with disabilities who would prefer to be born. Apis also points out that people who support the idea of playing God indicate that a disabled person’s life is placed at a lower. Humans have spent decades researching and enhancing their knowledge in the field of eugenics, but some have disregarded the fact that disabled humans are also humans. Life is indeed a precious gift that many disabled people will fight for their rights. Although life is perfect for no one, it is nevertheless worth living. Who is to decide what constitutes a life worthy of living? To say to a disabled person that they are equal and worth living while at the same time aborting and preventing fetuses with the same disability is unashamed hypocrisy. By altering, killing, or discarding embryos with disabilities, eugenics is exemplified at its worst, and demonstrating the extreme in fatal discrimination. Eliminating embryos that have impending disabilities is not equivalent to curing the actual diseases. Although people may be better off experiencing life without disabilities, they wouldn’t be experiencing life at all if they were dead. If life was not worth living, then people would end it themselves. By providing the opportunity for every individual to experience life, it will be much more valued and cherished.

<https://assignbuster.com/analysing-genetic-engineering-with-reference-to-plato-philosophy-essay/>

People who attend schools with disabled children are proven to be more open-minded and innovative. Being exposed to such fundamental difference is simultaneously stimulating and educating. Thus, by eliminating the disabled from society may not be as beneficial as perceived. It may have an opposite effect on society, making us more bigoted, judgmental, and self-obsessed.

Peter Singer is one of the most influential philosophers in the world. Singer is known as an animal rights activist, arguing that animals should share equal moral status as humans. Ironically, he supports euthanasia and infanticide for disabled human beings, greatly contrasting deontological values with his claimed utilitarian beliefs. His utilitarian beliefs support the overall quality of life and the ability to experience happiness. He suggests that perhaps for the disabled, life is not worth living, as their abilities to feel pain outweigh their abilities to feel pleasure. In his book *Animal Liberation*, he argues that the animal's ability to experience pain is sufficient to put them on equal grounds with humans. He wishes to abolish all types of "speciesism", where *Homo sapiens* are no longer superior species. On the other hand, Singer creates division among disabled people and non-disabled organisms. Singer is often criticized not because he includes animals in the realm of personhood, but because he leaves some humans out of it. He confirms that "It's certainly nothing against people with disabilities that motivates my position. It's rather a desire to avoid suffering." It is paradoxical that Singer's theory of utilitarianism can be applied so easily to the liberation of animals, but encompasses a wide range of problematic implications when applied to humans. If he chooses to diminish the sufferings of animals through

liberation, why is it that he cannot do the same for disabled infants through minimization of their pain? In 1999, an article in *The New Yorker* identifies a crucial contradiction in Singer's ethical beliefs. When his mother was suffering immensely from Alzheimer's disease, portraying her as a "nonperson" under Singer's morals, not only did Singer not euthanize her, but he spent tens of thousands of dollars every year to provide the best care for her. Singer always believed that spending money on charities towards diseases (ie: breast cancer, heart disease) was a waste of money, as he would rather give his money to improve the lives of the healthy rather than try to save the 'doomed.' Singer's response to his mother's illness was very sentimental, but it completely contradicted his utilitarian ethics. Singer is indeed a brilliant philosopher, but who is he to decide what is "normal" and that his ethical views towards the disabled are correct, when his overall ethical principles and actions are paradoxical within themselves?

Stephen Hawking is one of the most outstanding individuals in the 20th century. Hawking is a world renowned astrophysicist and cosmologist disabled by a motor neurone disease known as amyotrophic lateral sclerosis. While studying at the University of Cambridge, he was diagnosed with the motor neurone disease at the age of 21. Being a fortunate survivor, Hawking utilises a voice synthesizer to talk due to his body paralysis. He furthermore describes himself as lucky despite his unfortunate disease, because his situation did not hinder him from having a family. It was the slow progression that provided him time to make influential discoveries. Hawking has been presented with an abundance of awards such as The Albert Einstein Medal in 1979, the Wolf Prize in Physics in 1988, The Copley Medal in 2006, and the

Presidential Medal of Freedom in 2009, the highest civilian honour in the United States. Detecting a propensity for the disease which Hawking possesses in his parents could have led to his prevention or termination.

AESTHETICS

The advancement of technology has not only attempted to eliminate weaker genes, but it has also attempted to revolutionize aesthetic appeal. A liberal society should be able to accept a wide range of ideals of the 'good life'. However, if a parent chooses characteristics which they think are ideal but can cause suffering to the child, boundaries must be drawn to roughly define 'ideal'. For example, if parents of a specific religious sect wanted to hinder their future child's ability to read to protect them against a possible corruption of faith, the child must be protected. With that being said, the difficulty of drawing the line is evident, as it is difficult to find a common ground in which genetic choices will justify the protection of children. In that case, restrictions which protect children from parental harm after birth should also be utilized for protection against parental genetic choices. Some parents might think that their children would become more successful if they were more selfish, competitive, and aggressive. If many parents agreed with this thought, they would alter their own children with such characteristics so that they would not be disadvantaged. Decisions as such can lead to unwanted outcomes from the very people who contributed to them. In a society bounded with consumerism and the promotion of a single "ideal" identity, we are approaching a world similar to Gattaca, eliminating all groups perceived as inferior. Transforming a generation as a whole based on a couple of "ideal" characteristics may not be so ideal after all.

SAT Scores/Intelligence

An article entitled The Egg Market indicates that in the United States “ egg market,” SAT scores determine the prices of a woman’s eggs. Although humans are far from understanding the true complexity of human genetic engineering, market forces have made their ways into the hearts and wallets of consumers. From the Georgia Institute of Technology, Professor Aaron Levine conducted a study of advertisements for egg donors. The applicants were required to submit their SAT scores and a precise description of all their physical features. Couples are willing to pay tens of thousands of dollars to purchase an egg from a woman with a superior appearance and specific ethnicity. Couples are also willing to pay up to \$5780 per 100 SAT points. To customize a child with characteristics that do not belong to the parents themselves may create problems in the future. Parents usually identify with their children. They are often pleased when they see hints of their own characteristics glow from their child. Similarities between parents and children are what define the unchanging relationship, as parents will be able to sympathize with their children and build a stronger relationship mutually. However, if the children share no mutual features with the parents, despite the increased abilities in the children, parents would lose the sense of parenthood. This moreover raises the question of whether the parents should be allowed to customize their child with perfect characteristics.

Obesity

Regardless of age, obese Americans suffer from constant discrimination from many aspects of life including relationships, employment, and education. In fact, weight appears to be a more persuasive form of discrimination, even

more than other appearance-related factors such as age, race, or gender. With derogatory implications with the appearance of obese individuals, other characteristics such as intelligence and compassion are often overlooked. Obesity has been paired with negative stereotypes such as “dirty,” “lazy,” “ugly” or “stupid” by children in nursery schools. In a survey conducted, it is stated that 16% of adult Americans would abort a baby with untreatable obesity. Furthermore, in 1988, another study conducted demonstrated that students would rather marry an embezzler, a drug addict, a shoplifter, or a blind person than someone who was obese.

Technological Flaws

To put human genetic engineering into practice is not a process that everyone can afford. As a result, only the wealthier families will be able to afford it. Individuals may be genetically engineered to be temporarily immune to certain diseases, as it is possible for another mutation of disease to arise. On the other hand, scientists have learned from experience that progressive technology generates pressures for its use. Consequently, if genetic engineering were permitted, it is highly possible that the technology would be utilized inappropriately, employed even if exercising a less risky method could establish a comparable outcome. There are also much justified concerns that genetic engineering practitioners will overemphasize the benefits while understating the risks of the overall procedure. Because of the insufficient knowledge in the field of eugenics and frequent risks, there is inadequate justification to authorize human genetic engineering. Until this day, the potential risks to future generations outweigh the advantages to a small number of individuals. Discoveries and stabilizations of such practices

can result in international recognition, awards, grants, and other measures of wealth, status, and power. These are all compelling incentives to overstate benefits, take objectionable risks, and dismiss valid objections.

Under circumstances where there is no prevention of vast harmfulness and where a large number of people are put at considerable risk, it is obligatory to be cautious. When genetically engineered organisms live among society, they put everyone at risk, not only their creators.

The term “ playing God” implies that humans should not interfere with natural selection. However, it is undeniable human interference with certain aspects of natural selection led to new discoveries such as medications. On the other hand, controversies arise when there is human interference with natural selection through the alteration of genes.

Cloning

One of the many greatly feared outcomes of genetic engineering is cloning. It is hypothesized that cloning could lead to a utopian race as well as to the ultimate annihilation of individuality. The mixing and matching of components and proteins has yet to be mastered, thus, until further knowledge is obtained, genetic engineering on humans is visibly risky and unsafe. On July 5th, 1996, Dolly the sheep was the first mammal to be cloned. Being of the Finn Dorset breed, although she had a lifespan of 11-12 years, Dolly suffered some unusual diseases which led her to live a life out of the ordinary and die at the age of six. If humans were to be cloned, would the results correspond to the fate of Dolly? The flaws of cloning suggest that there is simply not enough information and knowledge to perfect this type of

genetic engineering. In addition, Dolly was created from an ewe's egg and a cell from another ewe's body. Throughout this process, no semen of ram was utilized. If that were ever to be applied to human beings, it would greatly affect the morals and values of males especially in patriarchal countries. Males would no longer be necessary for reproducing and eventually the population imbalance would increase even more than presently.

Through her novel, *Frankenstein*, Mary Shelly attempts to alert the public to the consequences of tampering with life and death, where there are strong effects seen when toying with life. She furthermore presents a highly relevant caution against the dangers of the hubris that accompanies scientific knowledge. Scientists today are on the verge of becoming 'Frankensteins'; relentless in their work and ignorant of the sanctity of creation.

In the late 1990s, Dr. Hwang Woo-Suk from the Seoul National University conducted various cloning experiments, including the successes in cloning a cow, and dog, and an attempt at cloning human somatic cells. Despite knowing of the complexity of the DNA of a primate, Dr. Hwang continued to pursue his vision of cloning a human being. Eventually, he claimed to have successfully cloned human somatic cells, but was instantly shunned when there was clear evidence of fabricated data in his journals. As a result, he was charged with many accounts of fraud and embezzlement, throwing his entire career down the drain. In the long run, his allure to be the first scientist to break through with revolutionary discoveries eventually hindered his success. His desire for the top spot in the world of science eventually led to his dishonest actions which in turn led to his downfall as a scientist and a <https://assignbuster.com/analysing-genetic-engineering-with-reference-to-plato-philosophy-essay/>

well respected person. Being able to clone Dolly, the first sheep, was a landmark. It is not uncommon that Dr. Hwang would want to continue that enormous prestige, but sometimes the pressure of competition leads to actions that one would never think of undertaking. Morally, it is ultimately not beneficial to the human race as well as the scientific world. Similar to Dr. Hwang, many scientists are willing to risk their futures in an “all or nothing” gamble for the highest position. Scientists as such have defeated the overall purpose; they have failed to realize that the entire reason why scientists originally supported eugenics through human genetic engineering was to improve the lives of humans, rather than fight for a prestigious position in the world of science for self fulfillment. Human genetic engineering has always been a dangerous experiment to tamper with, but with the increases of selfishness, it is becoming not only technologically dangerous, but also morally hazardous to our society.

Risks

One of the most feared outcomes of genetic engineering is the possibility of producing an organism that will escape the control of its creator. This is exemplified through genetically engineered fish. As a transgenic animal, genetically engineered fish tend to raise problems when they interbreed with other fish that haven't been genetically altered. If the process continues, it can potentially change the characteristic of wild fish in the most undesirable ways. The genetic engineering of humans presents more risks. As previously mentioned, our lack of technological knowledge could result in creating an organism turns out to be not as ideal as presumed. Furthermore, it is possible that different characteristics are genetically linked unpredictably. If

this results in producing a race that was worse than expected, we would have no choice but to attempt to cope with them. There might be pleasant intentions for creating intellectual individuals only to know that they are genetically altered to be violent. Not only will there be catastrophic consequences, but the situation would be practically irreversible. Once the process starts, there is no going back. One must evaluate clearly before even entering the realms of human genetic engineering, as the great risks simply cannot justify the comparably minuscule benefits achieved. The risk of disastrous consequences should be enough to deter the uses of human genetic engineering.

Philosophers or Scientists For/Against Genetic Engineering

Human genetic engineering involves modifying the genotypes of humans before birth and manipulating certain traits of the individual. Furthermore, selective breeding as an attempt to bring out the best traits has also been practiced for centuries. The most prominent examples supporting Plato's Republic is Nazi Germany's use of eugenics, eliminating the degenerates, the weak, the homosexuals, with hopes of improving the Aryan race as a whole. Adolf Hitler strongly believed that Germany's weakness originated from the weak and corrupt "degenerates" of society who were contaminating the German bloodstream. Adolf Hitler's use of Nazi eugenics not only sent the disabled to gas chambers, but also enforced sterilization against one's will.

Sir Francis Galton was a massive supporter of eugenics. As a eugenicist, anthropologist, and proto-geneticist, Galton suggested that only by extinction of the weak can a society elevate as a whole. He wrote books such as *Hereditary Talent and Character* (1865) and *Hereditary Genius*, which <https://assignbuster.com/analysing-genetic-engineering-with-reference-to-plato-philosophy-essay/>

states, “ Consequently, as it is easy, notwithstanding those limitations, to obtain by careful selection a permanent breed of dogs or horses gifted with peculiar powers of running, or of doing anything else, so it would be quite practicable to produce a highly-gifted race of men by judicious marriages during several consecutive generations.”

Despite supporting the risks of genetic engineering, DNA code and Nobel laureate Dr. James D. Watson states that genetic engineering within humans is a “ matter far too important to be left solely in the hands of the scientific and medical communities.”

Political philosopher Michael Sandel argues that genetic engineering is indeed a problem as it “ represents a kind of hyperagency – a Promethean aspiration to remake nature, including human nature, to serve our purposes and satisfy our desires.”

Nobel Prize winning biologist and Harvard Professor, George Wald, once wrote,

“ Our morality up to now has been to go ahead without restriction to learn all that we can about nature. Restructuring nature was not part of the bargain.... For going ahead in this direction may be not only unwise but dangerous. Potentially, it could breed new animal and plant diseases, new sources of cancer, novel epidemics.”

Hitler’s justification of enforcing eugenics is very similar to Plato’s justification. Both individuals wanted a pure race. In Hitler’s case, he wanted a superior Aryan race and Plato wanted the Guardians to be a superior race.

<https://assignbuster.com/analysing-genetic-engineering-with-reference-to-plato-philosophy-essay/>

When Galton states that eugenics can produce a highly gifted race, he has not taken into the consideration the process behind the hypothesized result. Not only do Hitler and Galton's desire for an ideal race blind the real dangers in the progression, there is a higher possibility that the future is accelerating their fates of doom. Whether it is a Nobel laureate, a Harvard professor, or a political philosopher, the idea is the same. All three brilliant individuals understand the harm that stands in the way of enforcing eugenics through human genetic engineering. The process of altering nature can lead to dangerous and most importantly, irreversible modifications.

CONCLUSION

During the time of Plato's Republic, Plato's intentions for eugenics were intended to create a superior race. However, he has failed to realize that eugenics, especially through the process of genetic engineering, should be deeply prohibited, as it raises too many morally vexing concerns. The technology nowadays is insufficient to control the full process of genetic engineering. Despite this, humans are pressured under societal progressions to continue the process of revolutionizing the human race. Tampering with the nature of plants may result in positive and negative creations. Similarly, the genetic engineering of humans may lead to something revolutionary, but sometimes the promises of short term benefits will be plagued by long term misfortunes. The irreversible nature of human genetic engineering should be more than enough to hinder this process. Human genetic engineering leaves no room for errors, as the tiniest flaw in the processes can trigger fatal consequences that will affect the present as well as the future. It is necessary to conserve human diversity rather than homogenize the

population. It is important to be sentimental towards the disabled, to question positive genetic engineering, as well as consider the numerous technological dangers. By enhancing intellectual skills, there could be a lack of resistance to a certain disease. In order to cope with the next century, we will have to alter and distort life of the planet, to the extent where the definition of being human is lost. Eugenics cannot be seen as the solution to eradicating disabled or aesthetically unappealing. Not only is that discrimination, but it also damages the society as a whole. With that being said, no matter how much we attempt to perfect human nature, there is bound to be a price to pay with every distortion.