

The Need for Genetic Enhancement

Genetic engineering has proven to be a useful technology after years of advancements and promising discoveries. Most scientists would agree that it was the human genome project that launched this renaissance of genetic technology, giving way to in-vitro fertilization, cloning, stem cell research and other questionable procedures. However, germinal choice technology is the latest topic of concern. Some people say that furthering research in this genetic technology could save the lives of millions, while others question the safety and morality of manipulating human genes.

Germinal choice technology refers to many technologies involving parents choosing the genetic composition of their children before they are born. This can be done by screening embryos or altering particular genes. According to a worldwide study commissioned by the March of Dimes, each year about eight million children are born with genetic-oriented birth defects; roughly seventy percent of those defects could be prevented. Problems that could be prevented by germinal technology include: brain damage, spinal cord injury, muscle damage, heart disease, and hearing damage, Down's syndrome, and Lou Gehrig's disease among many more. IQ could even be raised to normal levels to avoid mental retardation. While this technology seems quite useful, many people still question the morality of using it.

Many conservatives suggest that practicing such a technology on humans, allowing parents to alter their children, is immoral. They claim that by intervening in God's divine plan for a human being, a person is not only trying to "play God," they are also ruining the integrity of one of his creations. They explain that humans do not completely own and control their bodies, God does. They would rather keep intact the theory of "human nature." God gave mankind the knowledge and the resources to improve the standard of living, to create for

ourselves a longer, easier, more pleasant way to thrive. He gave us the technology that most conservatives claim would destroy his work. He also gave us free will. The reason we have this promising undertaking set down before us is so that we can use it to better humanity, to provide opportunities to those who otherwise would not have had any, and to make wise and fulfilling decisions about how it should be done.

Vitamins are taken daily by countless people who want to feel more energized, to improve their health, to make up for a deficiency, or to extend their life. Medications have been administered to people to minimize or cure their health problems, and surgeries have been performed to save lives. Those technologies have existed for centuries, changing the paths of many people's lives. If someone should claim that those medical incidents are part of God's plan for a person's life, who is to say that germinal procedures are not? If too many people had thought about those medical advancements the way they view new age procedures, doctors and scientists may have just given up then, not wanting to take the risk. In turn, we would still think of age 55 as the end of the road.

The reality is, not many people want to take responsibility in going through with such a delicate technology as genetic engineering. Many Christians know the biblical story in the second book of Mark, in which four men carry a paralyzed man to see Jesus, find that they cannot reach him, dig a hole in the roof over Jesus' head, and lowers the man down in a mat just so that Jesus could cure him. The men in the story portrayed an act of fellowship and kindness, but they most importantly displayed a sense of duty. The media tells us that balding men can undergo hair replacement procedures, that obese men and women can diet and exercise or take weight loss pills. But all the media tell us about the disabled is that they need help and that we should donate money to charitable funds for finding a treatment. The paralyzed, the intellectually

deficient, and the deaf, along with the millions of other disabled individuals who cannot control their conditions with a simple pill or cream, need help from the millions more healthy individuals that make up the rest of the world's population.

Another concern about the future of germinal choice technology is the impact it may have on society and the economy. The cost of the procedure is an important issue, seeing that it is mostly poor individuals, many living in third world countries, that require the most help. For families that already pay medical expenses for their children, the cost of the technology may be just as much as the amount of money continuously spent on surgeries and equipment. Currently the cost for screening embryos and implanting them after correcting genes averages at around \$15,000 per try. Eligibility requirements for the procedures, which would be likely to differ from country to country, would have to be discussed. Many people fear that this technology would greatly interfere with employment rates across the globe. Physical therapists and other people who help disadvantaged individuals as the basis of their career would either be forced into other jobs or into unemployment.

Other people are uncertain of whether or not the effects would be worth the effort. The safety of procedures that involve tampering with genetic makeup is a touchy subject. Scientists could perform multiple experiments with animals to develop safer, easier, quicker procedures and increase their availability. Of course, an overwhelming fear of genetic technologies resulting in catastrophe has developed in many parts of the world. Movies like *Frankenstein*, *Jurassic Park*, and the *Island* relay that manipulating God's creations will certainly have a disastrous outcome, whether for the intention of bettering mankind or for the sake of surpassing technological expectations. However, the biggest issue is the aspect of the technology that could have the greatest effect on society.

While many people would like to lessen the likelihood of their child being born with a serious disability, others have plans to use the technology to produce super intelligent, beautiful, talented children. There is a striking similarity between this notion and that of animal breeders, who produce pets that are considered valuable, distinguished, and pure. If germinal choice is not controlled, the demand for complex procedures would increase with the number of wealthy individuals willing to pay for the most extraordinary children. If this should occur, the technology would become available to only a select few people, and the scientific promise may foster the proliferation of an Arian race.

A professor of Social and Political Ethics at the University of Chicago, Jean Bethke Elshtain expresses the discomfort this technology may force on disabled individuals in his essay "The Body and the Quest for Control." He points out that by working to eliminate diseases and disorders, the world would be showing people with such disabilities as Down's syndrome that their "kind" is not accepted in society. He claims that by eradicating groups of people from the gene pool, those people would feel even more like they are worthless, that they are an inconvenience. However, the whole point of the technology is to better the lives of the disabled by providing them with more manageable, more equal lifestyles. For the time being, disadvantaged individuals may experience feelings that Elshtain describes. Of course it is more or less fair to sacrifice a few good feelings to spare the millions of children in the future that could die young or be tormented with suffering for most of their lives. Many decisions people make in life may affect them or other people negatively in the long run. An unwise decision about the make-up of a child could have devastating effects.

An unregulated germinal choice technology would not only allow families to better their sons and daughters, it would also allow for the victimizing of children. Instead of wanting their

children to be superhuman, many dwarfs and deaf individuals wish they could use this technology to create children that *share* their disabilities. It may not seem fair to them that most people do not want to accept their decisions, but such selfish desires would cripple society even further by forcing a child into disability that could have otherwise lived a normal life. Many families simply want to choose the gender of their baby. But unbalancing the lottery of life in everyone's favor may result in a large-scale gender assignment that could greatly reduce genetic diversity, especially in countries like China, where one sex is strongly favored over another. However, some people do not see these prospects as potential problems.

Gregory Stock, director of the *Program on Medicine, Technology, and Society* at UCLA, supports germinal choice in his essay "Choosing Our Genes." He explains how the technology could give way to many medical and cosmetic opportunities and anticipates the evolutionary effects it may have on mankind. He dismisses the idea of regulation, claiming that it would be nearly impossible to control procedures that would result in characteristics that could not be differentiated from those associated with normal birth. Stock reassures that while the technology may present some problems, they would not outweigh the benefits. Although that may prove true, it is not ethical to hand over to parents all over the world the authority to customize their children however they see fit.

It may be difficult to imagine, but if people were allowed to alter their children's height for instance, basketball may no longer be a challenge. The hoops would have to be raised to counteract the players' increase in height, and people who are considered to be tall now would no longer be able to play the game. The same problem the world is experiencing with steroids involved in sports could occur with germinal choice, making children stronger, faster, much like the million dollar man. The basis of equality, of an equal opportunity to find peace and

prosperity in life would become null and void with the permission to tip the balance beam. To look forward to improving children who would be completely healthy if left alone is shameful when there are so many children confined to a life in a wheel chair or a bed, just wishing they could run and play on the neighborhood playground. The little girl in the photograph below suffers from cerebral palsy, a disability that could be prevented using germinal choice technology.



If millions of people use germinal technology to improve their children's cosmetic characteristics, society will transform into a worldwide vanity fair. If nothing is done to preserve our sense of humanity, if the technological procedures we are so carefully blessed with become fair game, people who are admired as "superior" now will be seen as the disadvantaged ones in the future. This issue should no longer consist of two extreme points of view; there is a middle ground. Germinal procedures should be determined by necessity and the desire of equal opportunity, not vanity or superiority. Although many people are not worried about these procedures developing in the near future, some of them are already being practiced throughout the world.

Not regulating procedures, not stepping in and saying what is right and wrong will create a scientific anarchy. While the disastrous effects of being able to choose any and all characteristics of a child may not be apparent right now, abuse of the technology is inevitable unless the extent to which a child may be manipulated is determined. Even if laws were created to prevent the germinal choice from running amuck, there would still remain a possibility of abuse. However, the chances of scientists passing the set boundaries would greatly decrease.

This advanced technology is no longer a possibility, it is a certainty. Soon, much like there has been in the past with almost every technological development, there will be an international race between countries trying to outdo each other with successful outcomes. If lines are not drawn and if consequences are not set in stone now, the damage that this blessing could inflict if it ends up in the wrong hands may already be done. In order to ensure the safety and control of germinal choice technology, laws cannot successfully be made and protected according to each state's or each country's popular views. In order to reasonably govern multiple countries, a higher power must be willing to dictate boundaries and enforce regulations pertaining to this issue. Such a power may be found in the alliance of the United Nations.

The UN has several purposes as an international organization, including maintaining peace and security, cooperating in solving international problems, and harmonizing the actions of nations. The UN's eight Millennium Development Goals include the reduction of child mortality, the termination of diseases, and the creation of global partnership for development, which would make the benefits of new technologies available for poverty-stricken countries. Germinal choice technology would allow the United Nations to meet at least three of its goals. These goals and features, along with the fact that all the world's countries and leading development institutions

form the alliance, make the UN a strong, sensible candidate for the regulation of genetic technology.

In addition to guidelines of what procedures should be done and what should not, harsh consequences must be created to ensure that people will not misuse the technology. As a compromise, germinal choice procedures should be permitted to prevent disabilities. However they should not be used for any cosmetic purposes other than defects that may affect the lifestyle of a person greatly, such as a hair lip. Every aspect of a germinal procedure must be voted on as either permissible or restricted. It should also be determined whether or not the procedure, or perhaps a part of the procedure, could be covered by medical insurance companies.

It is unfair to the disabled children in the world who could benefit from the procedures that genetic enhancement has to offer for the technology to be dismissed completely for fear that it could be taken too far. To hear that such a promising technology as germinal choice may not be applied because we don't know how to control it is disappointing. If the world recognizes that we have the power to better the lives of millions by preventing disability and allowing for equal opportunity and we don't use it, then we truly are selfish, heartless individuals.

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