

Redefining the Self: The Genome Rewrites the Dictionary

J.W. Snider

Introduction

The human self has arguably, since the beginning of time, represented one of the most safely guarded and sacredly held aspects of life on earth. Its inherent significance to every human being has certainly been a cornerstone for society and governmental principles, and rightly so. Every human possesses a “self” and only one “self.” However, as society and the environment have changed, they have forced a slow, yet constant shift in what is defined as part of oneself. The research of the Human Genome Project was clearly intended to discover further what makes a human and how such discoveries can be safely altered or treated for the betterment of all people. Recognizing that a decipherable genetic code now aids in the description of every being, a comprehensive definition of the human self must include it. Yet, the discovery and decoding of the genome has had a much more widespread effect on humanity, which now forces the redefining of the general term “self,” in order to accurately portray of what a human consists.

The terms “self” and “oneself” have a variety of meanings. When referring to a human, though, many common threads between definitions surface. The American Heritage Dictionary of the English Language defines the “self” as, “The essential qualities distinguishing one person from another; individuality” (American Heritage Dictionary Online). Yet, the Merriam-Webster Dictionary defines “oneself” as, “one's normal, healthy, or sane condition or self” (Merriam-Webster Online). In the light of recent discoveries regarding the genome, a third, more comprehensive, definition must be turned to for use that entails and encompasses all that is essentially human and should be considered as such. The best succinct example of this again comes from the Merriam-Webster Dictionary, but from the meaning of “self”: “the union of elements (as body, emotions, thoughts, and sensations) that constitute the individuality and identity of a person” (Merriam-Webster Online).

This definition stands as best able to embody all of the possibilities of the human self not only due to the decoding of the human genome, but also due to the prospect and current technology of gene therapy and alteration among others. In his book, *Being Me: What it Means to be Human*, Pete Moore defines each of his chapters as a different “being,” which together constitute the human self. However, a “genetic being” only occupies one of the nine being chapters of the book. Gene therapy or alteration, on the other hand, could be argued to affect or reconstitute every chapter of the book. The U.S. Department of Energy Office of Science defines gene therapy as “a technique for correcting defective genes responsible for disease development” (DOEGenome). Gene alteration can be taken as an extension of this ability into changing the genome for purposes other than disease.

The altering of one’s genome is surely a serious matter that must be handled with great reverence shown towards ethics and ramifications. Today, it is slowly becoming possible for humans to alter what could once have been argued to be both the “individuality” of a person and his or her “normal condition.” This fact undoubtedly complicates the first two definitions given above for the self and oneself. Because the third definition relies on thought, emotion, etc., instead of genetic makeup, it should and shall remain as a valid explanation of what it means to be human, despite the advances of gene therapy and alteration.

Who controls the self?

Most humans would argue that they control themselves and that their free will supercedes all outside forces. However, research has argued that to some extent, free will is partially determined by a person’s genetic makeup. In fact, J. A. Bishop and L. M. Cook argue in *Genetic Consequences of Man Made Change* that:

“The way in which the genome is organized partially dictates the way in which an individual can respond to a change in

environment... A genetic response to a change of environment can involve selection of natural variation associated with the chromosomal genome. Alternatively, a new environment may induce previously silent genes to produce their message as occurs in *Escherichia coli* when lactose becomes available” (Bishop 16).

With this in mind, gene therapy and alteration become tools to unarguably alter the human self, yet room is left for the human to make decisions on his or her own, utilizing free will, in order to fulfill the meaning of a self. Ultimately, despite the ability to genetically modify a person’s being, no two humans may possess the same self. Instead, a uniqueness of place, time, thought, emotion, body, *etc.* force each human to possess one and only one self during all of life from conception to death.

Adult Gene Therapy and Alteration

New technology will hopefully soon allow for widespread use of the techniques of gene therapy and alteration in adult humans. The benefits are numerous, especially as far as medicinal purposes. Nonetheless, an obvious worry exists that “playing God” in such a way could not only alter a person’s situation, but, in fact, completely destroy his or her former self. In *The Manipulation of Life*, Willard Gaylin recognizes such fear and writes:

“When we began to be able to influence human behavior via the use of drugs, electrodes, and direct surgical intervention in the brain – a panic occurred... Today, we are less concerned about manipulating behavior and more frightened about the prospect of tampering with our genetic structure” (*The Manipulation of Life* 53).

Though these are laudable concerns, the truth stands that although science may change the makeup of a human, it can never destroy the entire self.

For example, it has been argued that altering the genome of a human being would effectively change the base conditions by which the human operates, thus too drastically amending the person’s outcome and decisions to constitute the before and after person as the same being. In reality, the person’s decision or a decision made on the behalf to go through gene therapy or gene alteration becomes part of that person’s self. Therefore, the

procedure may only be seen as a stepping-stone in the life of the patient. Afterwards, the human is still fully able to make decisions dependent upon their new conditions.

Some would also argue that a person’s natural reactions could be altered too greatly so as to reverse the instincts of that person, which are the traits centermost to their natural being. Still, even with a different set of instincts or reactions, the person is fully able to assess his or her tendencies and build upon them or suppress them. This again empowers the human to maintain his or her self completely by the gift of free will.

Further arguments have included the threat that “escaping fate” may have on a person’s self. If a person is predestined by fate, then the altering of that path by changing the self could be seen in many religions and measures of morality as another creation of the person. For example, if a person is born with a deadly disease, like Huntington’s disease, and becomes aware of the illness, he or she probably would inform the family of the disease. Indeed, this announcement could not only alter the life of the patient, but also the lives of his or her loved ones. To then cure the disease by genetic testing and editing would extend the life of the affected, as well as redefine years of that person’s life. To those who believe life is an inescapable cycle that must be adhered to, lest a slippery slope of “God playing” be created, gene therapy might constitute an overstepping of human responsibilities and rights.

Genetic alterations could also, clearly, change personal and public perceptions of the being both in social situations as well as in business. This could easily give unfair advantages to those who already begin at the higher socioeconomic classes. Further division would likely occur, as well as the creation of stereotypes to describe and label the new class of selves. This is a ramification much like that of cloning, where arguably a new self is created rather than an entirely separate being.

Finally, it is clear that individuality, one of the qualifying factors for a self, could be threatened by genetic alteration and therapy abilities. If both physical and mental genes can be changed, one might wonder how the inevitable quest for the most desirable traits can be prevented. Therefore, as these abilities may seem to be the continuation of self-

realization and determination, it could altogether destroy the possibility for maintaining a self in a world of cypocats and look-alikes.

Surely, most of these theories are quite farfetched and would require a large amount of statistically unlikely happenings. Nonetheless, they make decent points concerning where *unreasonable* or *irresponsible* treatment of such tools and abilities could lead us in the distant future. The fact is that under the third, most accurate, aforementioned definition, the abilities and gifts to change or correct one's genome should be tools cherished and utilized effectively to aid mankind. Gene therapy in adults is far from destroying selves. Instead, gene therapy could extend lives and enhance their quality.

Child and Unborn Child Gene Alteration

Certainly, much of what applies to adults above, consequently, also applies to children. However, the key difference lies in the child's inability to make the decision for him or herself. As mentioned above, this truth by no means necessitates a loss of their self to another's decision, since much of the self is based in how the genetically altered child deals with and performs under the changed conditions. In fact, nature itself and other beings can certainly force upon the child situations or conditions that the child did not desire. Life and the self are often victims of consequence and outside forces. Again, the third definition of the self allows for the self to be maintained in this situation, as it should be. The first and second definitions, though, must be rejected on this basis.

However, the situation for unborn children is often considered different in many ways from that of a young child. Since humans are unable to come to a consensus on what period in the development of a child it becomes a human, this section is specific to a child or potential child in the womb. Amitai Etzioni brings forth a notable point in his book *Genetic Fix* when he writes that "the procedure used in determining genetic defects in a fetus can now also be used to learn the sex of the embryo" (Etzioni 29). This statement could bring forth many concerns about the alteration of such information.

Parents could, at some point, be able to choose the exact physical attributes of their newborn child, a change that could easily be seen as

an alteration of the self before free will of the child is granted. This early dependency on the mother could be used as an arguing point for genetic alterations that do not just change a situation in a person's life, but virtually the entire life as a whole. Since the child would have made no cognizant free will decisions, these genetic changes could be construed as a "redestining" of the child. Thus, the potential self of the unborn baby would be exchanged for another, more certain, form. However, it remains apparent that the child would still have the ability to make all of the normal decisions of life for him or herself. Therefore, he or she could work within the construct of life presented and live a normal, healthy life with a perfectly provable self. The only situations that seem to steal the self with regard to unborn children are the abortion of the child or the decision to never conceive the child. Either way, the self is withheld from the being and, thus, is nonexistent.

Conclusion

Clearly, the recent discoveries brought about by the Human Genome Project have redefined what was once considered the human "self." It is now time that the newfound, surfaced construct be recognized as the accurate portrayal of a human being. From the perspectives of ethics and morality, the definition of the self and all of its aspects is pivotal. That is, the shifting of the view of what inherently defines a being significantly reforms the previously accepted rules and laws regarding the treatment of a self. The altering of genes should be taken seriously, and the field should be entered with great caution. Yet, no matter what changes are made, the self should remain such as intrinsic, immoveable, and constant.

References

Etzioni, Amitai. *Genetic Fix*. New York: Macmillan, 1973.

Gaylin, Willard. *The Manipulation of Life*. San Francisco: Harper & Row, 1984.

"Gene Therapy." *U.S. Department of Energy Office of Science*. 2004. 21 Oct. 2004
<<http://www.er.doe.gov>>.

Genetic Consequences of Man Made Change. Eds.
J.A. Bishop and L.M. Cook. London:
Academic Press, Inc., 1981.

Moore, Pete. *Being Me: What It Means to be
Human*. San Francisco: John Wiley & Sons,
2003.

“Oneself.” *Merriam-Webster Dictionary*. 2004. 21
Oct. 2004 <<http://www.dictionary.com>>.

“Self.” *The American Heritage Dictionary of the
English Language*. 2004. 21 Oct. 2004
<<http://www.dictionary.com>>.

*J.W. Snider, a junior from Madison, MS, is a Tier I
Jack Warner Scholar. An ambassador for both the
College of Arts & Sciences and the Honors College,
he also serves as Past-President of Alpha Lambda
Delta Honor Society and as Vice-President of Sigma
Alpha Lambda Leadership Society. J.W. is a
premedical student pursuing a double major in
chemistry and medical leadership through New
College, as well as a double minor in the Blount
Undergraduate Initiative and classics.*