On Eugenics

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I. Introduction

Genetic engineering is a controversial issue. People on all sides of the debate have moral concerns about where this technology could lead society. This paper will argue that genetic engineering should[1] be used to correct the conditions of individuals who possess diseases that cause extreme physical or mental dysfunction. This argument will address mental diseases such as depression, as well as physical disabilities that result from a genetic mutations such as Crohn's disease and Down syndrome. This paper will also discuss the implications of genetic engineering on changing one's physical appearance.

The first part of this paper will introduce the two major schools of thought in the genetic engineering debate and then explore the connection between distribution and justice. This connection will then be applied to the debate, outlining the issues surrounding genetic engineering in terms of distribution. Next, the paper will touch on the concerns that genetic engineering raises about agency. The final portion of the paper argues that genetic engineering for cosmetic purposes must be regulated and controlled to avoid the adverse consequences that might result from its abuse. In order to explore these topics with greater ease, the concept of genetic injustice will be outlined and used as a heuristic guide in this assessment.

II. Contrasting Viewpoints

I will now outline the two general schools of thought in the debate on genetic engineering. The first will be termed the *naturalist view*. Votaries of this ideology reference a divinely instituted plan that we must follow, which is dubbed 'nature.' The naturalist claims that any disruption of the genetic sequence is a perturbation of the divine plan and thus constitutes a moral breach. In this case, the distribution of goods and bads throughout the gene pool is described as part of God's plan. Unequal distributions of goods and bads are not considered in scientific terms; rather, justification for unjust distributions, such as disease, is given in biblical jargon. While many people in this camp may believe in the general tenets of science, they view genetic engineering as a transgression of God's will.

In contrast to naturalists, proponents of the *plenarist view* place no limits on genetic engineering. Moral reservations are all but absent in the camp. Not only do plenarists wish to obviate disease contraction through genetic manipulation, but they also wish to improve physical appearance through genetic therapy.[2]

I argue against both the naturalist and plenarist views, hoping to find a middle ground that allows for responsible use of genetic engineering. Both the naturalist and the plenarist views fail in different ways. The naturalist view does acknowledge that even before the existence of bioengineers, genetic engineering took place in the form of selective farming.[3] Genetic engineering is not new; it is merely more precise, advanced, and marvelous now that in decades passed. The plenarist view, on the other hand, is too expansive. It sets no boundaries or limits to

control what could be a dangerous tool. In the following sections, I will outline a theory promoting the use of genetic engineering that imposes limitations on its application in humans.

III. Distribution and Justice

The distribution of goods and bads is often discussed within the context of justice. For example, we would think it unjust to force poor communities to house all nuclear waste facilities simply because they are poor.[4] In this case, we consider the nuclear waste facility to be a bad, where a bad is defined as something injurious. That is, we think that having this facility in a neighborhood will harm the persons of that community. In this case, the bads (the nuclear waste sites and the accompanying health effects) are distributed in a fashion that purposefully and adversely affects a certain community. Distributing poor health conditions and risks to poor communities because they are poor is unfair and illogical. When a policy results in the improper distribution of bads, we conclude that it is unjust.[5]

In this way, we think of the justice can be determined in terms of distributions of goods and bads. However, a mere distribution of goods and bads is not sufficient for qualifying as unjust distribution. For a distribution to be considered unjust, it must adhere to the *principle of responsible distribution*: In order for an injustice to occur, the distribution of a bad must be completely out of the control of the affected individual. For example, if X receives a bad, it must be the case that X was in no way responsible for the distribution of that bad. X must not have performed any act that would cause the bad to be distributed to him.[6] Conversely, it is not an injustice for an individual to receive a good if that individual has no control over the distribution of that good. Injustice can only occur when an individual receives something undesirable. However, it may be the case that the distribution of a good will also result in the distribution of a bad. If the distribution of goods *directly* results in the distribution of a bad, then the group who did not receive the good was treated unjustly. This injustice did not emanate from one group not receiving the good; the injustice resulted from their receiving the unwarranted bad.

Let us take an example to illustrate this point. In Japan, there are essentially two types of people: the mainstream Japanese and the burakumin—the social pariahs. Though the mainstream Japanese receive better education and have a higher standard of living than the burakumin, that does not necessarily mean that the distribution of goods is unjust. But because the distribution of goods to the mainstream Japanese perpetuates the distribution of bads to the burakumin, the distribution is unjust.[7] While it may appear that agency has no place in this discussion of distribution, agency can, and in this case does, play a role. One might claim that most mainstream Japanese have done nothing to affect the distribution of bads to the burakumin. In this case, however, doing nothing to change the unjust distribution is commensurate to doing something to perpetuate it. Thus, a Japanese person who takes no action to attempt to change the distribution is guilty of perpetuating such injustice through complacency. Those who are in power (the mainstream Japanese) distribute these bads to people who have done nothing to deserve them. Even those who are not in power are in fact guilty of perpetuating the situation by accepting benefits without taking action. The burakumin have not taken any action to deserve such a distribution. They have not, for example, attempted to slaughter the mainstream Japanese.[8] It is important to note, however, that, though the distribution is unjust across the community as a whole, it may not be unjust for all individuals within the community. In this

case, the distribution is not unjust for the mainstream Japanese but only for the burakumin—those who are receiving the bads.

The second principle to which injustice must adhere is *the definition of bad*s: Something is a bad if the circumstances at that time make it harmful to humans. If, for example, it is harmful for humans to digest raw chicken now but will be beneficial twenty years from now, then the definition of that particular bad will change. Consumption of raw chicken will change from a bad to a good. Thus, what is considered a bad now, might in the future be considered a good. This point, however, does not excuse the unjust distribution of a bad on account of the fact that the bad may, at a later date, be considered a good. Injustice is concerned only with present conceptions, not with potential notions, of goods and bads.

While it may appear from this discussion that all goods and bads are subjective, this is not the case. To glean a better understanding of this, we can explore two concepts: (1) objectivism and (2) subject-relativism. The latter term denotes that some goods and bads are subject-relative. Fashion is an example of a subject-relative good since some fashions are 'in' one year and 'out' the next. The former term embodies a limiting mechanism for the determination of bads; objectivity acts as a limit on subjectivism. In other words, while certain things may variably be considered goods or bads, there are definite characteristics that should always be considered bads because the reasons for doing so are synchronically stable. This is what is meant by *the definition of bads*: one must determine bads objectively. Examples of such bads include life-threatening diseases, murder of the innocent, etc. Using objectivism we can determine what bads will always be considered bads and why (i.e. objective bads). We can determine whether a purported bad is actually bad, or whether the purported bad is a merely subjective idea that will change with time. The poultry example mentioned earlier illustrates this point. If it is known for a fact that raw poultry is bad for human health now, it is reasonable to prevent the consumption of such meat, thereby obviating the pernicious effects the raw poultry would have on humans. Contrarily, if raw chicken becomes healthful to humans twenty years from now, then it should obviously be considered a good. This switch is not as capricious as it may seem. Though the *object* that is a considered a bad changes, the *reason* for considering an object bad does not change. Thus, the scope of objectivity demarcates the point at which objectivism ceases and whimsicality begins.

IV. Entitlement and Justice

Once we see that a distribution of a bad is wrong in many cases, we need to examine why we think such distributions are *prima facie* wrong. In order to do so, let us first examine what we mean when we claim that a person is entitled to a good. If we imagine a human stripped of all actions and deeds, we can think about her as *simply a person.* Without notions of what she has or has not done, we can still assess what sorts of things to which we think she is entitled: which things she should receive or have (as opposed to which things she should not have). It seems reasonable to claim that every human—irrespective of any characteristics and action—is entitled to goods and not bads. John Rawls' example of the 'Original Position' (OP) can help us see why this is so.[9] The OP is the notional place where we can imagine ourselves living before the existence of the earth. In this position, all persons are under the 'veil of ignorance,' and each person is blind to her own abilities and to the abilities of those around her. Rawls posits that from this position we would be able to determine which systems and institutions are fair. Similarly, we

could think of the distributions of goods and bads. If, while still in the OP, one were to choose a distributive system where all humans should receive (yourself being a human, albeit unbeknownst to you which one) goods or bads, it seems obvious that one would choose goods. For the possibility of one being a person who would receive that good would provide incentive to select a structure that distributes goods to everyone. It is important to note, however, that entitlement and justice can be, but are not always, intertwined.

To illustrate the ways in which entitlement and justice intermingle let us use an example. X and Y work equally paying jobs. One afternoon, simply by chance, X finds a twenty-dollar bill on the ground. During that same day Y finds nothing. Should one claim an injustice simply because X was distributed a good and Y was not distributed anything? It was sheer serendipity that X was distributed a good and Y was not. This was nowise unjust to Y. Neither Y nor X did anything to deserve the money. Y was not denied distribution of something which was rightfully his; thus, the distribution of nothing cannot be taken to be a bad. Even though X is distributed a good and Y is not, we can say that there is no injustice. While X may be entitled to goods, that does not necessarily mean he is entitled to *all* goods, and the same follows for Y. Therefore, even though Y may be entitled to goods, it need not be the case that he always be distributed goods. In this example, Y was not distributed a bad, nor was he distributed a good; what he received was neutral.[10]

V. Acting on Distributions

Until this point in the paper, the identification of goods and bads have been identified. What types of actions are suitable when an unjust distribution arise will now be discussed. When an unjust distribution occurs, we have an obligation to act in accordance with the *principle of revocable distribution*: If a person is distributed a bad unjustly, measures must be taken to reverse such distribution. Society must correct for such injustice without incurring additional injustices upon others.

Injustice in distribution of goods and bads occurs when an individual is distributed a bad that he had no role in assuming. Thus, only distributions of bads are are unjust. As we saw, the distribution to the burakumin is unjust because they receive undeserved bads. Moreover, though it seemed that the distribution of goods to the mainstream Japanese was just, it became apparent that the distribution arose from a policy of discrimination against the burakumin. Thus, the distribution of the goods to the Japanese directly resulted in the distribution of many bads to the burakumin. Though distributions of goods are not unjust on an individual level, they can be unjust across the community because of the bads they perpetuate.

Now let us pause and take stock. For an injustice to occur, it must be the case that:

> (1) The distribution of a bad occurs and accords with *the principle of responsible distribution*.
>
> (2) The bad distributed comports with the *definition of bads*, which necessarily includes identifying *objective bads*.

(3) If the situation aligns with points (1) and (2), then one should act in accordance with the *principle of revocable distribution*.

VI. Genetic Injustice

We can think of genetics in terms of the distribution of 'good' genes versus 'bad' genes. A gene can be defined as a sequence of nucleotides—Adenine (A), Thymine (T), Cytosine (C), and Guanine (G)—along a strand of Deoxyribonucleic Acid (DNA) that is located on a chromosome. This strand of DNA is part of the individual's genotype: the entire genetic makeup of the individual. The genotype codes for the physical characteristics that one exhibits; these characteristics are called the organism's phenotype. Thus, a 'bad gene' can be defined as gene with a sequence of nucleotides that produces a characteristic (or characteristics) that is harmful to the health of the individual. For example, a bad gene could be one that causes cancer or Down syndrome. A 'good' gene is a sequence of nucleotides that improves health. Examples include genes that code for the resistance of AIDS or ensure a healthy heart. Finally, a 'neutral' gene is one that has no salutary or deleterious effects on human health.

In order to further examine this topic, we must first determine whether the distribution of bad genes comports with the principle of responsible distribution. We know that genes are the information passed from parent to progeny, coding various features of the offspring. We also known that evolution works in a rather fortuitous manner, and that the genetic mutations that give rise to diseases such as sickle-cell anemia, Down syndrome, mania, and muscular dystrophy are distributed randomly.[11] This means that a child born with Down syndrome has done nothing to merit the contraction of this disease. She has Down syndrome because of the roulette-like process of nature. The child received a third twenty-first chromosome (trisomy) and was distributed the disease through no fault of his own. Such is the case with all genetic diseases; none of these inherited diseases is the result of a controlled action of the gene recipient.

Once we see that the distribution of genes is a random process in which nature[12] distributes goods and bads without reason, we need to define the bads that are distributed. Why would one consider the gene that codes for Down syndrome or muscular dystrophy a 'bad'? The answer seems obvious: these genes are harmful to health and in many cases cause premature death. It would be irrational to choose a life beleaguered by a debilitating disease such as muscular dystrophy over a disease-free and healthful life. Virulent diseases destroy life in all organisms. To claim that inheriting a pernicious disease would be beneficial to oneself is to claim that living is not the object of life.[13]

One might object and claim that, while we can surely speak of certain genes as good and bad, we cannot engage in a discussion of genetic distribution prior to such distributions to *actual individuals*. I.e., we cannot talk about a nonexistent individuals' fictional genetic makeup. Therefore, it is problematic to speak about what genes are good or bad for that individual. This is not an adequate criticism. If we cannot speak of things that have yet to be—and therefore cannot discuss whether or not certain things are good or bad for someone—it becomes increasingly difficult to speak of many issues. Consider today's society. We develop social policies designed specifically to deal with the future. This social policy necessarily includes future beings who have not yet come into existence. Thus, to claim that we cannot discuss what is best for unborn

beings is to claim that we cannot base social policies on projections for the future (or make them at all!). The absurdity of this claim becomes apparent when one considers what follows if we accept its premise: If we are unable to discuss future beings, we are confined to discuss only matters of the *immediate* present. Such thinking is incompatible with science, society, and logic. It is worth noting that while it is dangerous to legislate all human traits in an attempt to create a 'perfect' society,[14] it is even worse to neglect those future beings whose lives we could save.[15]

Even before the person in question is biologically consummated, we can determine through the use of *objective* criteria what traits would potentially be bad for her. The person does not actually need to be saddled with the pernicious gene for us to determine whether or not that gene is bad or even whether it is bad for the potential individual in question.[16] Moreover, because genes do not result from agency, the affected person is not responsible for the distribution she receives. The process of genetic distribution is somewhat random.[17] The fact that someone cannot determine their genetic distribution does not influence the determination of the goodness or badness of that distribution; rather, this merely illustrates that the unjust distribution needs to be righted.

Those who oppose the labeling of diseases as bad most commonly refer to the value of certain diseases. Some have argued, for example, that genetic correction would deprive the world of geniuses like Mozart, Van Gogh, and others who suffered from mental illness. This argument reasons that the talents of these men were derived directly from their mental illness and that, without such illness, genius would not exist. Even if we accept it to be true that all of Mozart and Van Gogh's genius was derived from mental illness, though I suspect it is not, we need not accept that the benefactor's suffering was better for the individual, or that society's net gain compensates for that individual's net loss. It seems a reasonable request to retain all of one's faculties and not be unduly burdened.[18]

Moreover, it should be clear that geniuses (or any other person for that matter) are not simply produced *for* society. That is, if the individual would be happier when freed from mental illness, that is how he should live. Any good that this person could presumably bring about for society is secondary to the well-being of that individual. To treat the individual as merely a means through which society benefits is to denigrate the value of personhood and subvert the interests of the individual to the 'common good.'[19] Shall we claim that because it would deprive the world of great musical works that, if possible, Mozart should be left to suffer from depression even if he would live a better life without such depression? Or should the poetry of a gifted writer subvert the individual to the genius of her work? Would it not make sense to prevent suicide or undue anguish rather than allow such misery, all for the sake of exposing 'genius' to society?[20] If we subordinate individuals to their accomplishments, we disallow individual happiness for the sake of 'genius' or 'society.'

Another common objection to the labeling of genes as 'good' or 'bad' is that, in so doing, we place a stigma on those with the specified genes. In other words, declaring some genes 'unfit'[21] is tantamount to promulgating that those who possess those genes ought not to have been born. In one sense, this argument may seem very convincing. It appears that there *is* a stigma allocated to those with certain genes if geneticists declare them unfit. One must recognize, however, that labels such as 'unfit' were used prior to the understanding of genetics. Mental illness, mental handicap, and 'feeblemindedness' have long resulted in the ostracizing of affected individuals.

Labeling of genes as 'good' and 'bad', if anything, educates people as to why such a stigma exists. Genetics pries at the bars of ignorance and educates people about the problems of others, describing them in terms of a genetic transcription process (i.e., in scientific terms).

Furthermore, to say that a gene is unfit is not to claim that one ought not to have been born. It is to claim that one ought not to have been born *with that genetic mutation*. For instance, when we diagnose a disease, we determine what is *wrong* with a person. This paper concerns diseases that are a manifestation of an individual's genetic sequence only. Thus, when we treat individuals for a disease, we are merely treating them for a genetic mutation. Therefore, if one is able to correct the gene sequence of an individual before she is born, it seems one has an obligation (both to the individual and to her family) to do so.

Consider the example of a girl who will be born with multiple sclerosis. If genetic engineering is capable of the procedures I have suggested, there are three potential options:

> *Option 1.* Allow the girl to be born with her unchanged genetic code and treat the disease as a symptom.
>
> *Option 2.* Alter the gene sequence of the parent before the girl is conceived ('germ-line therapy'), or abort the fetus if this is not possible.
>
> *Option 3.* Allow the girl to be born with her unchanged genetic code and then treat the disease's cause, i.e., alter her DNA through 'gene therapy'.

The first option intuitively seems like a waste of time, emotion, and life. If we merely allow an individual with MS to live out her life, we place a large burden on her and on her caretakers. She would live a truncated life, besieged by physical and emotional ailments.

The second option provides us with a more palatable solution to the problem. If one could change the gene sequence of the parent such that the child will not suffer from MS, it seems both logical and reasonable to do so. Moreover, if the child is going to suffer from an immense amount of pain and perhaps live a truncated life, and if pre-birth genetic change is not feasible, aborting the fetus seems appropriate.[22] In light of this observation, Option 2 seems more feasible than Option 1.

Yet there may be a better course of action. Option 3 seems plausible enough and it is more attractive than simply aborting a fetus. However, it is not clear whether this will ever be a viable option. It may prove too costly or burdensome in any number of ways. Nevertheless, if the technique described in Option 3 proves safe and effective, it should be chosen in favor of abortion. Above, I have attempted to outline what appears to be a case in which genetic engineering should obviously be employed to spare the suffering of the child.

VII. Cosmetic Genetics

Cosmetic genetics is the name given to the use of genetic engineering to alter one's body for reasons unrelated to health. Cosmetic genetics is a crucial issue in the genetic engineering debate and one that deserves close attention. The theory outlined above can be employed in this section to guide us through a different area of genetic engineering. Thus, in this section I will argue that the distributive theory outlined above does not permit the use of genetic engineering for purely aesthetic reasons.

Even if one accepts the theory that debilitating or life-threatening diseases should be eradicated by way of genetic engineering, the theory does not answer the question of whether cosmetic genetics should be allowed. For instance, if an individual could potentially change her appearance through genetic engineering and make herself more attractive, should she be allowed to do so? In this case, we commonly hear the 'Hitler argument' from opponents. These individuals argue that using genetics to change one's physical appearance so that it conforms to a societal conception of beauty distorts the concept of humanity and encourages people to look a certain way. This, opponents argue, could open the possibility of a homogenous culture. Even worse, it might move us into a neo-Nazi era in which all persons aspire to become the 'Űbermensch' or 'super human'.[23] Diversity in many forms is extremely important to society. In John Stuart Mill's work *On Liberty*, he demonstrates the worth of the diversity of thought that permeates the intellectual community.[24] To take away this diversity is to deprive the world of valuable differences.[25]

We must also keep in mind that the *principle of revocable distribution* only allows for a correction of injustice. That is, there must be a distribution of a bad in order for a person to change her distribution. We have also seen that society's conception of 'bad' changes with new discoveries and innovations. Nevertheless, bads are not completely subjective. The most basic reasons for considering something good or bad do not change.

Like the concept of distribution of goods and bads, the idea of *neutral* distribution can be applied to the cosmetic genetics. It might be best to think of our 'appearance' as being something that is influenced by "neutral genes." To understand what this means, let us revisit the example of found money, above. As we saw in the example, Y was never distributed anything, thus he was not treated unjustly. To receive nothing or receive something that is 'nuetral' is not unjust. The distribution of a feature such as eye color or skin tone is neutral. There is no way to determine whether such a thing is good or bad. One may be more desirable than another, but this determination is a subjective one, based on individual inclination and not on goods or bads. The distributions of these features to different people will be unequivocally dissimilar, yet this does not imply that one distribution is bad and one is good; these distributions are neutral.[26] Thus, the objective-limiting apparatus of the definition of bads allows one to distinguish between *true goods and bads* and purported goods or bads. This technique will help weed out those preferences that are merely a reflection of the fickleness of society. For example, a man may complain that his fingers are too short for no other reason than that he dislikes the appearance of his fingers. In this case, we clearly see that an injustice has not occurred. If, however, short fingers were considered a health risk, the distribution of finger-shortness would be considered an injustice. Health concerns are quite different from personal preferences. Simple cosmetic desire does not warrant genetic change.

VIII. Concerns of Autonomy and Agency

The aforementioned idea of neutrality seems plausible with respect to obviously neutral conditions such as eye color. Serious questions are raised, however, when the genetic engineering debate addresses controlling traits such sexual orientation. People worry whether genetic manipulation could limit a person's agency. Linda Barclay raises these concerns in her article "Genetic Engineering and Autonomous Agency," by outlining the potential autonomy-eroding pitfalls of genetic engineering when employed to manipulate sexual orientation.[27] She argues that "the norms and practices of genetic engineering may undermine the genetically engineered's autonomous agency."[28] In addition, a reinforcement of heterosexual mores by way of genetic manipulation would discourage accurate self-reflection and lead to the failure of "self worth and confidence," which are essential to autonomy and agency.[29] Barclay claims that the message sent to the children by manipulation of the 'homosexual gene' would do more to damage children's autonomy than the actual manipulation itself.[30] Barclay also asserts that "when such practices are widespread, and endorsed both by law and convention, they represent a graphic public expression of homophobic attitudes not too dissimilar to some forms of sexist attitudes." Genetic manipulation designed to change 'traits' will, Barclay believes, catapult the human race into the ring of the genetic determinists.[31]

However, Barclay's contentions do not present a problem for the theory in this paper.[32] According to the theory outlined in this paper, genes that code for behavioral traits that are ineffectual to the survival and well-being of the human race are *neutral*. Thus, if a trait has no affect on the health of an individual, there is no need to change that trait. One would do well to note, however, that concerns of autonomy and agency do not arise in cases of disease. In the case of disease, the agency in question would surely be affected, but is this cause for alarm? Often times, we discuss agency and lose sight of what we mean. Part of changing the unjust genetic distribution means affecting the agency of individuals. In fact, we *strive* to affect people's agency all the time: we this by treating brain damage, Down syndrome, and other diseases that affect mental capacities. Thus, we don't think that manipulating genes to affect agency is bad in all cases. Thus, while ridding an individual of a disease affects her agency, it does so in a positive manner: it provides her with *greater agency*. Once we lift the onerous burden of a disease such as Down syndrome, the individual is able to reflect on her choices and make more lucid decisions. For it is not clear that the individual with Down syndrome makes decisions with the same amount of agency as someone without the disease. The capacity to make meaningful decisions may be limited by the disease or a symptom of the disease. However, this is not the case with homosexuatlity. Homosexuality and other neutral characteristics (such as eye color) do not limit agency. The only objection one might raise is that homosexuality may constitute a bad under my theory. However, according to the theory I have outlined, homosexuality may be viewed only as a *subjective* bad, if at all.[33] Disease, on the other hand, is an objective bad. Preventing such suffering because suffering is an objective bad is more reasonable than obviating homosexuality just because society does not approve of that certain characteristic.

It is clear that, while persons may feel a certain way about homosexuality or any other 'trait', they should be limited in applying genetics to change distribution of that trait. Traits such as homosexuality are outside the scope of definition of bads. Therefore, homosexuality and concerns of agency do not arise under this theory.

IX. Conclusion

In this paper, I sought to outline a concept of injustice in terms of distribution. I justified the use of genetic manipulation to eliminate bad genes and delineated a definition of disease that can be applied universally. The procedural aspect of identifying bad genes will not change. Which genes are labeled as bad, however, may change over time. I found that genetic engineering should be used to rid the world of debilitating diseases that cause great suffering to the individual, even if such suffering benefits society in general. It is my view that genetic engineering should be used and cultivated for the benefit of future individuals.

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[1] The term 'should' implies that it is the best interest of the child that we carry out this course of action. This does not mean, however, that one *must* proceed with the recommended procedure. We must respect the parents' decision for their child.

[2] Some plenarists argue that parents may decide certain cosmetic traits before a child is born. Others claim that such decisions should be made the agent herself when she reaches a responsible age. These issues will not be explored any further in this paper.

[3] James Watson, *DNA: The Secret of Life* (New York: Random House, 2003).

[4] This assumes, of course, that the poor community did not generate the nuclear waste. If it is in fact responsible for waste generation, it may have a responsibility to house such waste. If, however, the waste could be considered a good in another area (i.e., it is beneficial to a particular environment), it could be distributed there as opposed to the community in which it would be considered a bad.

[5] Social programs seek to right such injustices. In the case of poor communities, the welfare system and community programs were developed in response to a purported injustice. Goods and bads must be distributed justly. An unjust distribution must be corrected *for the reason that it is unjust*.

[6] If X is forced to perform an action that distributed bads to herself, the distribution is unjust. If the agency that one exhibits is not her own—or is not free—then she bears no responsibility for her own actions.

[7] Though it may not be unjust for an individual to receive a good, the benefits that *accrue to a group* of people as a result of a certain distribution may be unjust. I.e., the goods that are distributed can directly and negatively affect another group of people. That is, the distribution of goods may be unjust over the community as a whole.

[8] Consider the nuclear waste example again. Rich communities may benefit from not having a waste facility in their town while poor neighborhoods suffer the pernicious effects of the waste repository. The poor neighborhoods receive bads because the people in the legislature are affluent. Constituents of these wealthy communities may also use their wealth to hire lawyers and environmental teams that prevent waste sites from being placed in their community. Thus, the agency of the individuals in the wealthier communities directly results in placement of the waste repository in the poorer communities. Because the wealthy communities preclude placement of the waste in their neighborhood, it is necessarily sited in the remaining poorer neighborhoods. Thus, it is the agency of one group that results in the unjust distribution of bads across a community.

[9] John Rawls, "A Theory of Justice" in *Morality and Moral Controversies*, ed. John Arthur, 6th ed. (Upper Saddle River: Prentice Hall, 2002) 288-98.

[10] It is worth noting that being entitled to goods does not preclude any person from receiving bads.

[11] This distribution is random in the sense that the distribution could have been otherwise. Even though some persons are more likely than others to receive genetic material coding for a particular disease, whether they get it is still random.

[12] Though I used the word 'nature' earlier to describe the 'naturalist' view, I here take it to mean the processes of the environment. I do not use it to reference God or religion here.

[13] The very idea that we are born not to live seems *encontra natura* and counterintuitive.

[14] I do not suggest that we ought to determine all traits that future beings will have.

[15] Another example can help to illustrate this point. We may decide to plant an elm tree in the forest, and we want this tree to grow and live for many years. Even before we have the seed for the tree, we can determine whether or

not it is good for the tree to have Dutch Elm Disease. If the tree we plant has this disease, we know that it will be destroyed—and if there are any elm trees around it, it will most likely destroy those trees as well. The disease defeats the purpose of our planting the tree: it destroys the life we have sought to provide.

[16] In the case of genes we speak of universally bad genes, i.e., genes that would be pernicious for any individual to whom the genes are distributed.

[17] I say 'somewhat random' because genetics do follow certain patterns, such as those displayed in recessive or dominant genes or in sex-linked traits. We might refer to the contraction of the original disease as random, but the hereditary nature of genes makes it such that the passing of the gene is not entirely random.

[18] John Rawls' Original Position again proves useful to illustrate this point.

[19] Jacques Maritain illustrates the inherent problem with the subversion of the individual and the exaltation of the common good in his book *The Person and the Common Good* (Indiana: Notre Dame University Press, 2001).

[20] What if the genius were to save a society on the brink of extinction? Would allowing that individual to suffer still deserve reprobation? In this case it seems that it would still be wrong to let one suffer for the benefit of the whole community. If one person is forced to suffer a great deal for the good of the community, we run the risk of the subversion of any individual to the common good, as Maritain so aptly noted. (And is not the purpose of society to serve the individuals interests rather than subvert them?) For what if the community's existence hinges on several million people? What about several billion? Moreover, a problem arises as who is to decide what the common good is and whom shall be sacrificed and for what purpose.

[21] In the 1910s Charles Davenport set the stage for Hitler's infamous eugenics campaign. He launched a program determining 'fit' and 'unfit' genes based on his 'scientific judgments'. A sterilization program was initiated in the US, and those who were determined unfit were labeled 'lower class'. Moreover, in addition to the bigoted sterilization policy, the US adopted a racist immigration law in 1924 (the Johnson-Reed Immigration Act) that prohibited immigration from Eastern European countries. (Watson, 89)

[22] Note that some will disagree with this claim because they are opposed to abortion as such. I will not take up the vast issue of abortion here and, consequently, I concede that this may not be the best option.

[23] Hitler used the work of Friedrich Nietzsche, who introduced the term in *Thus Spake Zarathustra* (New York: Dover Publications, 1999) as propaganda to bolster his conception of a superior race. However, Douglas Smith has argued that Nietzsche was opposed to anti-Semitism. Douglas Smith, ed. *On the Genealogy of Morals* (Oxford: Oxford University Press, 1996).

[24] John Stuart Mill, *On Liberty* (Indianapolis: Hackett Publishing Company, 1978).

[25] The value of 'bad' genes is not in question. It should be obvious that debilitating diseases, and thus the bads of which I speak, hold no value.

[26] It must be noted that even though these types of distributions are neutral, certain physical distributions are not. Excess weight, which may be genetically programmed to be unmanageable, can be considered a bad. It only can be considered a bad, however, if the weight is caused by a bad gene and adversely impacts the health of the individual.. If the desire to lose weight is purely aesthetic, such a genetic prescription is unwarranted because it does not address an injustice.

[27] Linda Barclay, "Genetic Engineering and Autonomous Agency," *Journal of Applied Philosophy* Vol. 20 (2003): 223-235.

[28] Ibid., 229.

[29] Ibid.

[30] She concedes that there may not be such a gene.

[31] The more we accept ourselves as products of our genes—and not of our socialization and the like—the less we reflect upon and revise our decisions; essentially, what this amounts to in Barclay's view is a loss of effective decision-making. Since decision-making is (at least part of) what it is to be an agent, this reduction of decision-making results in the loss of agency.

[32] It should also be noted that in many cases, changing the autonomy of persons is a direct result of using genetic engineering for genetic justice. In these cases however, the goods and bads are not subjective, as they are in the case of homosexuality.

[33] While one may view homosexuality as subjectively offensive, there is nothing inherently detrimental to humans in general about the practice. Surely one would not contend that sodomy preformed by two consenting individuals in some way afflicts others in a debilitating or inimical way. That is, what bad can one claim is distributed to oneself through the private, and let us assume, unknown act of two others? Nevertheless, one might argue that if homosexuality were to become the dominant trend amongst humans, the existence of the human race would be jeopardized, thus distributing a bad to the entire human race. An examination of this argument reveals it to be unintelligible. There are numerous examples of cultures that demonstrated mainstream homosexual tendencies and

still flourished. Perhaps the most widely known cultures that partook in constant homosexual relations were the Greeks and the Romans, each of which had no problem procreating with the opposite sex and expanding their empire. Moreover, current medical technology allows for the birth of offspring without the physical act of intercourse between members of opposite sexes. Thus, even if homosexuality was to completely dominate, and the opposite sexes were never to engage in intercourse, the human race could live on.