Vol. 28:2 Summer 2012

Human Germline Genetic Enhancement and C. S. Lewis's *The Abolition of Man*

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Abstract

The Abolition of Man, written over 60 years ago by C. S. Lewis, focuses on the importance of objective values. In it, Lewis asserts that a person cannot be fully human without the existence of objective values. He explores the basis for objective values and imagines a scenario in which the pursuit of the control of human nature through scientific technology would by the nature of the project separate itself from objective values and lead to the abolition of man. However, what he imagines might happen by the hundredth century A.D. is beginning to be possible in the twenty first. Research on germline gene transmission in animals suggests that germline genetic modification capable of changing the future of the human genome may be possible in the near future. Germline genetic modification is the focus of an extensive ongoing ethical discussion. This includes issues of safety, justice, and the limitations of human subject research. A major focus in the discussion is the issue of whether germline genetic modification for enhancement is ethically distinct from that done for therapy or prevention and whether genetic enhancement of future generations should be allowed. An analysis of Lewis's thoughts in *The Abolition of Man* adds an insightful perspective to the contemporary discussion of whether human germline genetic enhancement should be permitted.

Keywords: objective values, common morality, human enhancement, germline genetic modification

Men without Chests – The Importance of Objective Values

Lewis began *The Abolition of Man* with his concern that in the context of teaching students about English composition the writers of a text that he referred to as *The Green Book* were actually teaching philosophy. Lewis stated that the authors of the text, while ostensibly instructing about the use of language, were teaching "firstly, that all statements containing a predicate of value are statements about the emotional state of the speaker, and, secondly, that all such statements are unimportant" (15). The students who used the text would understand that statements about values were not objective statements that could be true or false because objective values did not exist.

Lewis made it clear that to deny the existence of objective values was to deny an essential part of what makes us human. We are not just animals that respond instinctively to our appetites. As human beings we are capable of perceiving how things ought to be and conforming ourselves to that reality. We are able to make moral choices in which we use our rational capacity to moderate how we respond to our desires. Lewis, following the thoughts of Plato and the medieval theologian Alanus, stated that human beings are made in such a way that reason, symbolized by the head, governs the appetites, symbolized by the belly, by means of the chest which is the seat of not just emotions but also sentiments and values (34). For our values to be capable of controlling our appetites they need to be more substantial than emotions and based on something more solid than the appetites

that they control. There need to be objective values which have a truth that is outside of ourselves on which our personal values are based for our values to be able to play that controlling role. To deny the existence of objective values is to remove the foundation of that governing part of a person. One is left with unmediated intellect and appetites. In Lewis's terms it creates men without chests (34).

Lewis was concerned with those who denied the existence of objective values by defining statements about values to be statements about the speaker's emotions. Today the existence of objective values is more commonly denied due to a broad concept of tolerance and an evolutionary concept of human values. We live in a pluralistic society in which people hold many beliefs that are incompatible with each other. A common response to that fact is a very broad understanding of tolerance that says no one set of values has more claim to truth than another. However, as J. Budziszewski has noted, that understanding of tolerance is logically self-contradictory since it is necessary to commit to some objective good that is furthered by tolerance to have a reason to assert that tolerance is good (40).

Those who hold such a broad understanding of tolerance in spite of its contradictory nature commonly understand values to be based on an evolutionary form of cultural relativism similar to that proposed by E. O. Wilson. It states that values exist due to the survival benefit that they confer on human beings in a society that functions better due to those values. This allows for different cultures to have different values and makes the survival of the social group the ultimate evolutionary value. Even though those who deny objective values today do it differently, that denial suffers from the same problems it did in Lewis's day.

The Way –The Basis for Objective Values

Although the writers of *The Green Book* taught there were no objective values, Lewis noted in his second chapter, titled "The Way," that they had written a book with the practical purpose of influencing its readers to agree with the ideas they were teaching. They had an end in sight that they held to be good for more than just themselves and therefore must have believed that there was something that was good for its own sake (40). Lewis wrote that "a great many of those who debunk … traditional values have in the background values of their own which they believe to be immune from the debunking process" (41). Those who believe in cultural relativism still have values such as tolerance, equal rights for minorities and women, and fairness that they would apply to all cultures. To hold evolutionary cultural relativism as the basis for morality and still live as if values that you hold are universally true is inconsistent. There are some who assert that there are universal moral values that are based on human evolution that are not different for different cultures but are still not objective because they are simply genetically derived adaptations that appear to us to be objective (Ruse). However, this leaves the problem that once we know that those values that appear to be objective are just evolutionary adaptations, we have no reason to follow them. Lewis helps us to see there are only two valid options. One is to accept that there are objective moral values. The other is to deny all values and live by your appetites.

Since the majority of people, including the writers of *The Green Book* and those who propose evolutionary cultural relativism, live as if there are objective values, what is the basis for those values? Lewis held that the values of common morality, which he called

the Tao, were self-evident. They were "things so obviously reasonable that they neither demand nor admit proof" (53). The basic precepts of the common morality have been understood universally across cultures and across time. It is "not one among a series of possible systems of value. It is the sole source of all value judgements. If it is rejected, all value is rejected. If any value is retained, it is retained" (Lewis 56). This does not imply that any one person or society has perfectly understood this ultimate source of moral value but that progress in understanding it can only come from within the common morality and not by the denial of it. Those who reject objective common morality are left with the concept that human moral values are a natural psychological phenomenon that served a purpose in human development but have no objective validity and are just one more part of nature that we can seek to control (Lewis 62-63).

The Abolition of Man – Human Control of Nature Leads to Nature's Control of Humans

The desire to enhance human functioning and capabilities lies within the human project of controlling nature through the use of science and technology. We have benefited from this project in many ways, not the least of which is the ability of modern medicine to cure or control many diseases that have afflicted mankind for ages. There is, however, a cost that we pay when we use science and technology to control nature. By analyzing nature into predictable parts we lose the sense of awe we have for its complexity and lose our sense of wonder at its design. We also lose the ability to see it in its wholeness. As Leon Kass has put it, "knowledge permitting prediction and (some) control over biological *events* has been purchased at the cost of deep ignorance, not to say misunderstanding, of *living beings*, ourselves included" (282).

Lewis saw the danger that existed in the application of the scientific project of controlling nature to human life. He understood that "what we call Man's power over Nature turns out to be a power exercised over other men with Nature as its instrument" (69). Lewis's insight that "all long-term exercises of power, especially in breeding, must mean the power of earlier generations over later ones" (69) relates to the potential effects of germ line genetic enhancement. He also understood that the nature of the project of taking control of the characteristics of the lives of future human beings would separate those taking that control from the objective values of common morality. The power to determine the genetic characteristics of future generations is a power that will entice those with that power to believe that there is nothing about human beings that they cannot control (74). Just as an evolutionary understanding of human beings and human morality leads to a rejection of objective values, the power to determine the characteristics of future human beings will do the same. It is not that limited genetic enhancements could not theoretically be compatible with objective values but that the overall project of controlling the genetic makeup of future generations will lead to an irresistible temptation to include every human characteristic, including our moral values, in the things to be controlled. That is what leads to the rejection of objective values. It leaves those who would decide what future generations of human beings will be like without any objective basis on which to decide how to make them. They are left only with their own desires which are a part of nature, and, thus, "Man's conquest of Nature turns out, in the moment of its consummation, to be Nature's conquest of Man" (80).

The Ethics of Human Germline Genetic Enhancement

Although Lewis imagined his scenario taking place in the hundredth century AD (71), developments in genetic science suggest the issue of human germline genetic enhancement will need to be dealt with in the twenty-first century. Germline modification has been done in numerous animals, including mice, rats, sheep, and a primate, the rhesus monkey (Cole-Turner, "Religion and the Question" 3). Kiuru and Crystal list thirty seven references to experiments in animals using genetic modification to attempt to enhance physical performance, mental performance, or appearance (Kiuru and Crystal 331-2). Genetic modification can involve somatic cell modifications that impact only the individual being treated or germline modifications that change the genome of an individual and the individual's descendents. They can be used to correct specific genetic diseases or possibly to enhance human characteristics. This paper is focused on human germline genetic enhancement which has elicited a wide array of ethical opinions and most closely fits the scenario imagined by Lewis.

The discussion of the permissibility of human germline genetic enhancement has focused on several issues. Although there are some like the National Science Foundation and James Watson who have advocated moving forward toward human genetic enhancement without much reservation (President's Council 6-7), many ethical issues have been raised. Concerns about issues of safety, methods, and justice impact human germline modification in any form. The distinction between therapy and enhancement, the role of our concept of human nature, the power exercised by those involved, and the goals to be pursued come into play specifically with genetic enhancement.

Safety and the avoidance of potential harms out of proportion to the possible benefits are ethical concerns for any new biotechnology. Nearly everyone agrees that human germline modification should not be done until there is an acceptable level of safety (Cole-Turner, "Religion, Genetics" 205). This is particularly of concern with germline modifications in which there are not only risks to the individual treated, which have been significant in attempts at somatic genetic therapy, but risks to future generations as well (Cameron and DeBaets 102). The risks to the children produced using genetic technology and their progeny are most concerning when they are being balanced against enhancements rather than the prevention of life-threatening genetic diseases (President's Council 49). In response to those concerns, many consider safety a technical issue that scientific progress would be expected to overcome. J. Robert Loftis expresses the thought that the key to safety concerns is proper regulation and has faith that the regulatory mechanisms in place governing medical research are adequate to address the issue (65).

Related to concerns about risk are concerns about the methods needed to do germline genetic modification and how human subject research ethics applies to the development of germline modification technology. Current techniques for germline modification in animals involve producing genetically modified embryos. Many of those embryos are defective and only a few survive to produce the viable genetically modified animals. To prevent the birth of children with serious defects as a result of the procedure, embryos would need to be tested prior to implantation and those appearing to be defective would need to be destroyed. Those who place a high moral value on human embryos find this method of germline modification to be impermissible in humans just as they would any other form of embryo-destructive research (Shannon 60, Cole-Turner, "Religion, Genetics" 206-8).

Rebecca Dresser has raised the issue of how difficult it would be to meet ethical standards of human subject research in developing the techniques for human germline modification. Studies to determine the safety and efficacy of human germline modification would subject not just embryos but the children born as subjects of the studies to "serious risks with a low probability of direct health benefit" (Dresser 2). The studies would also need to follow the subjects for their entire lifetime and their descendents as well to assess for adverse effects (Dresser 2). The practical difficulties of recruiting subjects for this type of study and obtaining their continuing consent to be monitored for generations would make ethical research on human germline modification extremely difficult (Dresser 5-6). Unfortunately, the development of human reproductive technologies such as in vitro fertilization has a history of ignoring the ethics of human subject research and the issue of the destruction of embryos by proceeding directly to clinical use without the safety studies or other review required of other medical technology.

There are several ethical issues related to justice with human genetic modification. For both genetic treatments and enhancements there is concern that the procedures will be expensive and unequally distributed, giving additional advantages to the rich and further disadvantaging the poor (Cahill 158, Cameron and DeBaets 102). Germline genetic enhancements raise concerns about transforming the current gap in wealth into new forms of genetic inequity that might cause insurmountable divisions in the human race (Cole-Turner, "Religion, Genetics" 210). Loftis and Fritz Allhoff argue that these are societal issues that are best addressed by providing just means of distribution, not by prohibiting the development of human germline enhancements (Allhoff 44, Loftis 68).

Some of the most serious ethical concerns about human genetic modification relate to modifications for the purpose of human enhancement. However, considering the ethics of human enhancement raises the question of whether enhancement can be distinguished from treatment and whether that distinction is ethically relevant. Many see the distinction between therapy and enhancement as something that is intuitive to most people, important in principle, and a good starting place for discussion, but difficult to define (Cameron and DeBaets 95, Cole-Turner, "Religion, Genetics" 211, President's Council 13-15). Those who attempt to define it more precisely make it clear that enhancement involves modifications that are not for the purpose of treating or preventing diseases (Green 104) and use a robust concept of disease in their definition (Juengst 135-6). While some would consider the distinction between therapy and enhancement morally irrelevant and focus on individual autonomy and an individual assessment of risks and benefits for any intervention (Harris and Chan 338-9), most bioethicists accept the distinction, consider it morally relevant, and are able to draw the line between therapy and enhancement clearly in most situations (Allhoff 41).

A fundamental concern among those who accept enhancement as a distinct category is the negative impact genetic enhancements could have by altering human nature. In discussing the issue of human enhancements in general, the President's Council on Bioethics stated, " If there are essential reasons to be concerned about these activities and where they may lead us, we sense that it may have something to do with challenges to what is naturally human, what is humanly dignified, or to attitudes that show proper respect for what is naturally and dignifiedly human" (286-7). In contrast, others do not consider the alteration of human nature something to be concerned about. Loftis states that concern about altering human nature would only be legitimate if there were something special about human nature but that there is nothing special about human nature since it is just the

outcome of evolutionary processes (72). David Heyd discusses the relevance of human nature to genetic enhancement in detail. Following a line of modern rational naturalistic philosophy, he concludes that human nature "is the power humans have to define their identity, both individual and collective, to decide what they are and would like to be" (Heyd 163). He asserts that human nature cannot serve as the basis for the rejection of genetic enhancement because there is no fixed set of properties which forms what humans essentially are since we are the result of an open-ended process of evolution that lacks direction (Heyd 165). Since the concept of human nature is so open-ended in secular thought based on scientific naturalism, the ethical concerns about the alteration of human nature can best be understood in theological terms in relation to the Creator (Cole-Turner, "Religion, Genetics" 212-3). Cameron and DeBaets note that human nature is distinct both by our being created in the image of God and by human nature being assumed by God in the incarnation (104). This human nature that persists in spite of our being fallen is the basis for the inherent dignity and value of human life on which human rights and the moral status of human beings are based. Since human nature is central to theological ethics there is reason to be concerned about the alteration of human nature by genetic enhancement, but this is not accepted by those who reject theological arguments.

Another concern deals with whether those who would attempt to enhance human abilities by genetic modification can be trusted with that power. Gilbert Meilaender notes the arrogance of the project by asking, "What estimate of ourselves – our virtue and wisdom – would we need even to want to become so fundamentally the shapers of humanity?" (43) Cameron and DeBaets echo Lewis in noting that the techniques for germline modification would concentrate power in the hands of a few people and observe that "such power would either likely or necessarily be corrupting" (103). Juengst et al. are concerned about how these techniques would lend themselves to exploitation by entrepreneurs (23). There is also concern that parents could misuse these techniques in exerting undue power over their children (President's Council 283). Loftis suggests that much of the concern over the misuse of power in human genetic enhancement comes from the problems associated with the eugenics movement of the early twentieth century and that the answer to those concerns is adequate regulation by society to avoid coercion and assure justice (69-70).

Those who favor pursuing human genetic enhancement argue that anything that enhances an individual's abilities is good for that person and is worthy to be pursued (Harris and Chan 338). Understanding that germline enhancements impact people who are not able to consent to procedures done prior to their birth, Allhoff uses John Rawls's notion of primary goods and proposes that "germ-line genetic enhancements are morally permissible *if and only if* they augment primary goods or create abilities that would lead to their augmentation" (50). However the usefulness of the concept of pursuing primary goods in this context is limited by the complexity of human goods and how they would be impacted by germline genetic enhancement. As noted by the President's Council on Bioethics,

> As these questions make clear, human goods and good humans come in many forms, and the various goods and virtues are often in tension with one another. Should we therefore aim at balanced and "well-rounded" children, or should we aim also or instead at genuine excellence in some one or a few dimensions? It is not easy to answer. Yet absent knowledge regarding these matters, acting on the laudable

> intention of producing better children can be a tricky, not to say dangerous, business. (28)

The genetic conquest of aging would appear to be good, but "there may in fact be many human goods that are inseparable from our aging bodies, from our living in time, and especially from the natural human life cycle by which each generation gives way to the one that follows it" (President's Council 296).

Insights from *The Abolition of Man*

As noted by Cameron and DeBaets, Lewis had a "Christian understanding of what it means to be human," (100) but he expressed it in a way that was accessible to those who do not accept Christianity. Lewis understood that a significant part of what makes us human is our ability to use objective values to make the ethical judgments we use to direct our actions and control our natural appetites. Those objective values which are self-evident and have been understood across cultures and across time help us understand what it means to be human. Since the insights of common morality are available to anyone regardless of their theological position, they can help to communicate an understanding of what it means to be human to those who do not accept a scriptural or theological understanding of human nature. This understanding forms an effective counter to those who see human nature as the open-ended result of undirected evolutionary processes which we should be free to change.

Lewis also showed us that the scientific project of reducing nature to things we can understand, predict, and control assumes that all things including human nature and values can be understood, predicted, and controlled by science. That leads to a rejection of objective values and a rejection of what it means to be human. Those who pursue science and technology need to be aware that objective values stand outside the domain of science and should be relied on as a guide to science and technology. Only scientists with chests can truly benefit humanity.

The part of the scientific project that emphasizes control of nature also has inherent dangers. Lewis understood that the power exerted over nature by science and technology also involves power of those in control of the technology over other people. That power needs limits that science and technology do not provide. Power has been known throughout history to corrupt those who hold it. When that power is combined with a rejection of objective values resulting from a lack of understanding of the limits of science, it has the potential for great destruction. Objective values are needed to provide the boundaries for the power of science and technology to maintain its positive contributions to mankind while limiting its potential for domination and destruction.

The existence of the unchanging, universal objective values of common morality provides a foundation for understanding who we are as human beings. Those values can be understood as a part of the general revelation of God the creator which have been imbedded in every human conscience or simply understood as a self-evident part of how we and the world happen to be, but they are there. They make it possible for us to discuss ethics and whether we ought to pursue human germline genetic enhancement. They warn us against trying to make ourselves into what our appetites would lead us to desire and commend to us the virtue of humility and a willingness to accept that we are finite beings with limitations to what we can and should do. Those values remind us that the good life toward which we strive is "a life not of better genes and enhancing chemicals but of

love and friendship, song and dance, speech and deed, working and learning, revering and worshipping" (President's Council 299). The essence of human germline genetic enhancement is making future human beings into what we want them to be. It inherently entices us to leave what we can know objectively to be good and seek to fulfill our desires and appetites. It entices us to risk harm to those whose genes are modified, destruction of embryos, lack of proper human subject research ethics, threats to justice, tampering with human nature, and abuse of power to fulfill our desires. Lewis helps us understand that what it means to be human is to be men and women with chests who base our decisions on objective values and resist the temptation to make future human beings into what we want them to be.

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