

Influence of Modern Science on the theme of Creation: Perspectives in Religion and Ethics

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Abstract

Modern science and technology influence religion to a large extent. Rationally, it implies experimentation and free rational inquiry on issues pertaining to science and religion. This paper endeavors to offer a forensic examination of the influence of modern science and technology on the theme of creation. Scientific practices such as cloning of human beings, eugenics, stem cells on humans, In Vitro Fertilization (IVF) and Evolution vis-à-vis religion are discussed. The implications of enhancement technology on the moral, ethical and religious dimensions of life are comparatively analyzed to underscore the underlying. The phenomenological approach is used to guide the study

Keywords: *Modern Science, Eugenics, Cloning, Stem Cell, In Vitro Fertilization, Biblical Creation, Evolution, Enhancement Technology, Genetic Engineering, Religion and Ethics*

Introduction

In response to the increasing need for information about medical genetics and biotechnology as well as the ethical issues these fields raise, this paper aims at discussing the most striking implications these issues have on the theme of creation. In connection to the focus of this paper, Sandel (2005) advances general claims concerning genetic engineering saying that much of the debate about cloning and genetic engineering is conducted in the familiar language of autonomy, consent, and individual rights. Sandel credits Agar (1999), Buchanan et al. (2000) and Dworkin (2000) who have written on the proponents of genetic engineering stating that defenders of “liberal eugenics” argue that parents should be free to enhance the genetic traits of their children for the sake of improving their life prospects. Relevant to the above, Dworkin (2000), for example, argues that there is nothing wrong with the ambition “to make the lives of future generations of human beings longer and more full of talent and hence achievement.” In fact, he maintains that the principle of ethical individualism makes such efforts obligatory. In relation to this, Sandel (2005) claims that many opponents of cloning and genetic engineering also invoke the language of autonomy and rights. For example, Habermas (2003) worries that even favorable genetic enhancements may impair the autonomy and individuality of children by pointing them toward particular life choices, hence violating their right to choose their life plans for themselves.

According to Shannon (1998), modern science enables us so much that we can literally reach inside ourselves, remove genes, and either correct or replace them. He adds that such power, though truly awe-inspiring, is also truly frightening. In learning more of what it means to be “human,” Shannon wonders whether we will become less human in the process.

It is perplexing for one to consider issues of genetic engineering vis-à-vis religion and ethics. This study considers such issues to be causing farrago of feelings when cogitating on the complexity of human power over nature, intellectual hubris, the technological imperative, the degradation of human beings, and the violation of their unique genetic structure. However, Shannon (1998) reflects on the benefits of such scientific practices including advanced knowledge of the developmental process of pre-implantation embryos and the further development of new responses to infertility. This paper commits itself to discuss a range of scientific issues such as cloning of human beings, eugenics, human embryonic stem cells, internal fertilization, and evolution theory to predict facts concerning the theme of creation.

1.1 The Statement of the Problem

Some of the procedures that are being used by modern scientists in an attempt to seek lasting solutions that may expedite curbing problems the human race faces pose fear and consternation especially on the ethical, moral, and religious aspects of life. This fear is expressed by Shannon (1998) who considers such scientific practices as cloning of humans, eugenics, human embryonic stem cells, and internal fertilization to cause humans to become less human in the process. For example, the deliberate creation of embryos for research is what Sandel (2004) exclaims that even the opponents of this practice support embryonic stem cell research, provided it uses “spare” embryos left over from fertility clinics. Here, the aspects of human dignity and the right to life are at stake.

In Christianity, the prerogative of creating life belongs to God alone. According to the Genesis creation account, God is the creator of human beings. His image and likeness, He created them male and female (Gen.1:26-27). Human beings are not only regarded as a special creation but also fearfully and wonderfully created by God Himself (Psalm 139:14). This study is interested to understand how genetic engineering determines genetic traits of children for the sake of enhancing their life prospects. In the process of making this inquiry, questions such as these arise: In whose image are cloned humans made? Are they not inferior given that they are “created” by human beings, and therefore created in the image of human beings for a particular reason? When human beings “create” human beings through genetic engineering and not from the hands of God or natural procreation (Gen.2:7; 1:28) with an intention of having “better” human beings with particular characteristics, does this practice consider the beauty and uniqueness of the diversity of creation? How ethical is it for example, to frozen embryos in fertility clinics in order that they can be used later or destroying them after use?

In light of the above, (Exodus 20:13) inform that life is not only sacred but also a gift from God that must not be terminated for whatever reason or degraded in any way. Without a doubt, this study has found out that modern science enhances human life extensively, however, creating embryos for research is exploitative and fails to accord embryos the respect they are due. Shockingly, Wade (2003) reveals dire statistics of a recent study that found that some 400,000 frozen embryos are languishing in American fertility clinics, with another 52,000 in the United Kingdom and 71,000 in Australia. The difficult part of discussing this subject is to harmonize the position of God and the position of human beings concerning enhancement technology. This paper has the mettle to address these issues on the basis of available scholarly work.

1.2 Cloning of Human Beings

This section handles the cloning of human beings and tries to articulate its relevance to the enhancement of human life, besides pointing out some of the limitations in relation to ethics, morality, and religion. According to Shannon (1998), the technology of cloning is presented as replicating an infinite series of beings that are not only genetically identical but more importantly, are multiple copies of the very same person.

Kass and Wilson (1998) argue that cloning is wrong because it departs from natural, sexual procreation. In connection with the above, Coleman (2004), in his article “*Ethics of Artificial Uteruses*” quotes David Adamson (2009) who has brought forward cogent arguments against the use of any reproductive technology. Adamson suggests that the childless should adopt a child and recommends funding for the treatment of infertility. However, Lauritzen (1993) refutes Adamson’s view of seeing it as wanting. He argues, “Adoption shares some of the problems of those reproductive technologies, as well as having some unique problems of its own.”

In conjunction with the above argument, Kass and Wilson (1998) comprehensively give their diversified view concerning the ethical issues connected to the cloning of human beings. They say:

What makes reproductive cloning morally troubling is that its primary purpose is to create children of a certain kind. In this respect, it is similar to other forms of genetic engineering by which parents seek to choose the traits of their children—sex, eye color, perhaps one day even their intellectual attributes, athletic prowess, and musical ability. Although a few eccentric narcissists might aspire to create genetic replicas of themselves, the real market for designer children lies elsewhere, in the desire of parents to produce children with genetic traits superior to their own. The desire to control the genetic characteristics of one’s offspring points to the heart of the ethical issue. The moral problem with reproductive cloning lies not in its asexual character but in its assault on the understanding of children as gifts rather than possessions, or projects of our will, or vehicles for our happiness.

Commenting on the implications of enhancement technology on the ethical perspective of humans, Sandel (2005) in *The Ethical Implications of Human Cloning*, holds that what is most troubling about human cloning and bioengineering is not that they represent a radical departure, but that they carry to full expression troubling tendencies already present in our culture, especially in the way we regard and treat children. He laments that human beings have already traveled some distance down the path of regarding children as vehicles for their own ambitions or fulfillment.

Another striking point this paper considers is the issue of preferred sex of a “wanted” child. According to the research findings by Eberstadt (2002) record that sex ratios in China, South Korea, and parts of India, boys now outnumber girls by up to 30%. The study observes that the use of enhancement technology is manipulative and serves to the best interest of human beings and therefore, alienating the need for understanding the purpose of God in creation.

In the United States and many other Western societies today, parents put enormous pressure on children to qualify for admission to the best schools. For example, Kolata (1999) reveals the imperatives given by the Harvard college newspaper recently that carried an advertisement from a couple seeking an egg donor. Surprisingly, Kolata unveils the conditions given in the sense that the advert did not want just any egg donor. Instead, the advert specified that the donor should be attractive, athletic, at least 5 feet 10 inches tall, and with a college entrance exam score of 1400 or above. According to the advert, for an egg from a donor meeting these stringent qualifications, the couple was offered a payment of \$50,000. As far as this paper is concerned, the above stringent conditions for an egg donor reveal wanton inconsideration of children.

In relation to the above, Kass and Wilson (1998) refer to the practice of giving such stringent conditions as an assault on the understanding of children as gifts rather than possessions. The study perceives this practice to be undermining Biblical teachings on children, “Children are a reward from the Lord” (Psalm 127:3). However, the on-going discussion finds that the recipient couple looks at enhancement technology as the one to provide solutions to their problems. The major goal of this debate is to conceptualize the influence of modern science on the theme of creation and its relevance on the lives of Christians today.

1.2 In Vitro Fertilization (IVF)

This section explains the impact of In Vitro Fertilization (IVF) on the enhancement of the lives of human beings and addresses issues concerned with the theme of creation. The Advanced Learner’s Dictionary 8th edition defines in vitro fertilization as joining a sperm with an egg outside a living body so that a baby develops in scientific apparatus. According to Singer (1995), there are tens of thousands of children who are conceived outside the body. Whereas IVF can be a solution to the infertile couples, Singer argues against this practice claiming that the procedures involved are unethical. For example, Singer demonstrates the Church’s condemnation of masturbation which is the only process of obtaining sperms. He argues that such a practice as this weakens the marital relationship and causes loss of embryonic human life involved both in research directed towards improving IVF and in the procedure itself.

In supporting the above point of view, Shannon (1998) holds that while most are comfortable with the basic concept of IVF, concerns still remain about aspects of the technical context in which it is practiced. He expresses fear that such a context can distance the couple from each other and from the reproductive process itself. For him, the fear is that reproduction will become production.

In connection with the above argument, artificial reproduction is perceived to liberate women from biological inequality. Singer (1995) is of the view that feminists see women being used as subjects of medical experimentation, and suggest that the end result may be to remove women’s control over pregnancy and childbirth. Singer discusses issues such as using the embryo for research purposes, freezing the embryo for long-term storage, donating the embryo to another infertile couple, and screening the embryo to determine its genetic characteristics before deciding whether to proceed with implantation. In trying to have an option for removing women from having control over pregnancy and childbirth, in regard to the above argument, this assumption tends to undermine the Biblical doctrine on the role of women in the society of bearing children (Gen.3:16).

1.3 Human Embryonic Stem Cell Research (HESC)

This section discusses the significance of human embryonic stem cell research on the enhancement of human life and its relevance to the theme of creation. Siegel (2003) in “*The Stem Cell Controversy*” begins by explaining the main purpose of human embryonic stem cells. He says, “The main goal of human embryonic stem cell research is to identify the mechanisms that govern cell differentiation and to turn human embryonic stem cells into specific cell types that can be used for treating debilitating and life-threatening diseases and injuries.” The on-going debate is wary to identify and commend considerably scientific processes that do enhance human lives besides examining those practices which have a tendency of undermining moral ethics and religion.

In relation to the above, Sandel (2005) is of the opinion that human beings would do better to cultivate a more expansive appreciation of life as a gift that commands their reverence and restricts their use. Human cloning to create designer babies is what Sandel refers to as the ultimate expression of the hubris that marks the loss of reverence for life as a gift. However, Sandel appreciates that stem cell research to cure debilitating disease, using six-day-old blastocysts, cloned or uncloned, is a noble exercise of our human ingenuity to promote healing and to play our part in repairing the given world.

While Singer (1995) firmly supports HESC arguing that the capacities that are necessary for the right to life, for the case of the embryo, include reasoning, self-awareness, and agency, the opponents of HESC research argue that membership in the species homo sapiens confers on the embryo a right not to be killed. However, Siegel (2003) perceives the above argument to be grounded in the assumption that human beings have the same moral status at all stages of their lives.

In relation to the above argument, however, the study views the prerogative of creating life belonging to God alone (Gen.1:1-27; 2:7, 19) and therefore, no human being has the capacity of creating life nor bringing it to an end for whatever reasons. The view of the on-going study is that HESC does well in enhancing human lives, however, it has a tendency of being involved in killing human embryos, a practice that can be rendered unethical in Biblical terms (Exo.20:13).

1.4 Eugenics

This section handles eugenics and the ethical issues surrounding this practice. A range of definitions is given by different authors in order to give a vivid understanding of the phenomenon under investigation. According to O’Keefe (2016), eugenics is the study of methods to improve the human race by controlling reproduction. Galton (1883) defines eugenics as the science of improvement of the human race germ plasm through better breeding. He also says, “Eugenics is the study of agencies under social control that may improve or impair racial qualities of future generations, whether physically or mentally.” In relation to the above, Agar (2004) reveals utterly that a key program of the eugenicists was cleansing the human race by sterilizing the “unfit.”

Having considered the above argument, the proponents of eugenics came up with the idea of a system of voluntary unconscious selection which Galton (1883) refers to as “wanted” children. Eugenics is said to have both negativity and positivity. In this case, Agar (1999) gives a detailed explanation that distinguishes negative eugenics from positive eugenics that negative eugenics or ending the over-population of the “unfit” is obviously underway with widespread contraception, sterilization, and abortion. Agar, however, recommends that positive eugenics, or the increased production of the “fit,” can be advanced through artificial insemination, in vitro fertilization and genetic engineering.

The above argument in relation the relevance of eugenics and how it influences the theme of creation is perceived in this paper as a positive contribution to enhancing human life, however, the study advocates for the natural way which is in favor of Biblical teaching concerning human dignity and the right to life and discourages those practices that might have tendencies of undermining the position of God as the sole creator of life.

1.5 The Concept of Evolution

This section deals with evolution theory and its relevance to the theme of creation. In this case, Petteri (2015) reiterates the words of Purves et al (2004) in trying to explain the concept of evolution and says, “Genetic drift and bottlenecks can reduce the amount of genetic variability in a population.” The basic crucial factor in the maintenance of variability according to Purves et al (2004) is sexual reproduction with recombination and the subsequent production of new genetic combinations. They observe that as a result, even siblings can be genetically quite very different. They add that this increases the probability that at least one of the offspring of a mated pair would be adapted to its environment well enough to be able to reproduce itself.

The above mentioned phenomenon is dominantly conceptualized by Purves et al (2004) in the sense that natural selection is ultimately the force that leads to adaptation. In addition, due to genetic variability, there is also character variation. Moreover, based on this, they explain that the population contains individuals that are better adapted to the prevailing environment (also including other organisms in the ecosystem). Substantially, they imply that these individuals can produce more offspring and, thus, their alleles can become more common. Conclusively, they submit that the result is an increased adaptation of the population to its biotic and abiotic environment.

Purves, et al (2004) continue to give elaborate information concerning the concept of evolution through this summarize that natural selection acts on characters of the individuals in a population. This results in a variation of these characters in several possible manners. Stabilizing selection occurs when the individuals representing extremes regarding a character or a combination of them in the population have the least offspring. Thus, average individuals are favored. Directional selection favors individuals that represent characters diverging from the average of a population in a certain direction. In disruptive selection individuals with average characteristics have the least offspring. This type of selection is assumed to be rare.

The above argument motivates the on-going debate to substantively substantiate the position of God and that of human beings in matters pertaining to creation.

1.6 Theological Implications of Genetic Engineering

In this section, this article examines the implications of genetic engineering on the theological perspective of life. In trying to explain this concept, Shannon (1998) uses terms such as “playing God” and “God of the Gaps,” as a way of demonstrating that humans have overstepped their boundaries. To start with, Shannon summarizes arguably saying:

This term suggests that a clear demarcation exists between the roles of God and humans and that there are areas of life where God rules, where God is in charge, and where humans ought not to enter. The term evokes an omnipotent God who is the Creator of all and who commands all. Furthermore, the term also evokes the image of God as “God of the Gaps,” that is, the God who is invoked when all else fails, or when we have exceeded our limits, our knowledge is at an end, and our powers frustrated. Thus, it is most clearly in the gaps that God rules and it is in the gaps that God’s power is most clearly evoked. Here, God reigns supreme, and, here, we cannot play God.

In relation to the kind of issues aroused by enhancement technologies concerning the omnipotence of God as per the focus of this paper, Shannon (1998) teaches that as knowledge increases, the above mentioned gaps grow smaller and smaller, and as a result, God’s reign shrinks; God’s power becomes lessened, and God becomes less necessary. He then adds that humans step into the recently vacated gaps and play God by exercising the powers in the gaps previously thought only God’s. He acknowledges saying that cloning symbolizes such a disappearance of a gap and an exercise of new powers.

In trying to shed more light concerning the above argument, Sandel (2005) does well to complement the work of Dworkin (2000) who identifies the second religious theme as that of the human created in the image of God. According to Dworkin, a traditional understanding of this theme is that of humans as stewards who conserve and protect what God has created. He adds that typically one does this by respecting both the design of creation and the limits which God has placed on both the orders of biological nature and human society. He concludes that because this God designed the universe according to a plan and indeed embedded this plan into nature, the responsibility of a steward is to remain faithful to this plan and conserve it.

Such an interpretation of the image of God in human beings is what Dworkin (2000) calls a conservative one which, while not totally opposed to all interventions, is focused more on recognizing limits and maintaining boundaries. He points out that this is not done because of a lack of Promethean hubris, but rather out of a sense of genuine humility, recognition of one’s place before God and a sense of how one is to live out one’s vocation in the world.

Apart from the above concept, another understanding of the image of God in man is the one suggested by Hefner (1988) as the created co-creator. On this same point, Hefner gives an exhaustive explanation saying, “This phrase is important on two levels. First, it identifies humans as created. That is because we are created, we are dependent on God for our present and continued existence, and we are not God’s equals as creators.” Hefner identifies the second of humanity as co-creators with God. Hefner explains this concept avidly that we become participants with God in the continuous evolving of both nature and history. According to Hefner, we have a responsibility both for the development of each and for our neighbors as we seek to further the divine work of creation. He adds that such a view clearly allows a much-expanded view of human intervention into the world. He finally notes that as evolving, the world is a work in progress, and its fulfillment is partially dependent on our interacting with it through the creative use of our freedom.

For the asexual methods used by modern science in selecting “wanted” children, the Old Testament Bible teaches that human beings are to fill the earth through sexual procreation (Gen.1:28; 3:16; 4:1) and therefore, this article is of the view that such a practice might have negative implications on the part of believers who adhere to the Bible teachings concerning the theme of creation to remain neutral on account of solving problems using enhancement technology.

Conclusion

On account of this article, modern science is meant to enhance human life and to a large extent has achieved this goal. However, there are some scientific processes that are said to be having a tendency of degrading human dignity and bringing the position of God as the sole creator into question. It is also important for human beings to understand their position and limitations and especially how they need to treat fellow creatures. The study has also indicated that while enhancement technology exists with good intentions, aspects of ethics, morality, and religion are less emphasized.

According to Genesis creation account, God is the sole creator of life but has chosen human beings as a special creation and stewards (Gen.1:26-30, 2:7, 19, 20; Psalm 139:14). God has given humans beings knowledge and wisdom and uses them to solve problems in society through means that are appealing to moral ethics and religion. However, human beings are going too far in trying to manipulate or alter God’s creation through the use of enhancement technology. In this article, various methods and procedures used by modern scientists to solve problems, for example, population control and getting rid of the so called unfit children intend to ignore ethical issues such as the right to life.

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