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Peter Singer and the Deification of Modern Science: An Ethical Exploration

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Abstract

In this paper, we argue that Peter Singer in some of his key works ascribes certain absolute and definitive attributes to modern science, equating them to God. The advancement of modern science particularly in the areas of medical technologies such as human assisted reproduction and genetic engineering, has given science unparalleled powers over nature in general and human nature in particular. Because of this authority, Singer directly and indirectly attributes absolute values to science and the scientific method. He does this by according some supreme attributes (of God) like omniscience, omnipotence and omni-benevolence to science. In this paper we argue, contra Singer, that modern science has got no Godlike knowledge and Godlike powers over nature. Therefore, conferring on science such unqualified status is, firstly, an unwarranted estimation of the powers of modern science, and, secondly, this comes with some moral implications. For example, science may become the measure of all things. It also raises the ethical concern as to whether we can, for example, determine the moral worth of a human being or ascertain metaphysical truths merely by relying on scientific truths. Thirdly, Singer's perspective exhumes the age-old conflict between science and religion and celebrates the victory of science over religion. We argue for the view that science and religion are two sides of the same coin. In the search for the truth, the two disciplines concentrate on each aspect of reality, and therefore complement each other. Whereas science concentrates on the physical/natural, religion focuses on the spiritual/supernatural. It would therefore be sensible to adopt an approach to knowledge which accommodates and integrates both religion and science as complementary ways of understanding reality.

Keywords

Peter Singer, Deification, Modern Science, Religion, Omnipotent, Omniscience, Omni-Benevolent

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1. Introduction

Since its birth in the 17th century, modern Western science, and especially modern medicine, "has been guided by a desire to improve and elevate the human condition" (Kass, 2002: p. 174). Its rigorous study and experimentation on human subjects has resulted in a wealth of knowledge about nature as a whole and the human species in particular. It has provided humankind with knowledge about the functioning of the human body and the capacity to manipulate or alter the way the human body functions. The benefits of modern science to humanity are enormous. Because of the spectacular successes of science, some philosophers and scientists are beginning to equate science to God. Peter Singer is one of such thinkers who glorifies and venerates modern science.

Peter Albert David Singer is an Australian moral and political philosopher. He is one of most iconoclastic and controversial contemporary philosophers. His views concerning the value of science to humanity; the moral status of the human embryo, abortion, infanticide, animal rights, famine and poverty, the physically challenged, the mentally retarded, and life and death, are revolutionary and have not only opened new vistas and expanded our moral and intellectual horizons in thinking about these issues, but have provoked some of the most animated debates in contemporary moral and political philosophy. Singer's radical views on the above issues have made him not only one of the most famous, but also one of the most hated, philosophers in the world today. In this paper we argue that his unalloyed trust in the powers of modern science has stretched to the point of deification and this is not without moral implications. In some of his key works like *Practical Ethics*, *Rethinking Life and Death*: *The Collapse of our Traditional Ethics*, and *Animal Liberation*: *The Definitive Classic of Animal Movement*, Singer directly and indirectly attributes certain values to science, which qualify science and the scientific method as absolute. He does this by assigning certain attributes of God to modern science. For example, there are instances where Singer says that modern science is all-knowing (omniscient). This is observed in his arguments about the beginning of human life (Singer, 2009: p. 206), and the non-personhood of the human embryo, (Singer, 1994: p. 87), where he discards every other source of knowledge about humanity and settles on the evidence provided by modern science, as if to say modern science is all-knowing and is the only discipline that provides knowledge about human nature. Singer equally gives the impression that modern science is omnipotent, particularly with its biomedical project to create and enhance the human species. In some of his works therefore, there is a gradual shift from the Western conception and description of God as omniscient, omnipotent and omni-benevolent to the vesting of science with such attributes. Dan Brown, in his novel *Angels and Demons*, presents a clear picture of how science and scientific knowledge are considered as absolute. He brings this out in a conversation between two of his characters, Kohler and Langdon, as follows: "The men and women of CERN (Conseil Europeen pour la Recherché Nucleaire), are here to find answers to the same questions man has been asking since the beginning of time. Where did we come from? What are we made of?" Mr. Langdon wonders if the answers to these questions could be obtained from a Physics lab. And this is what Kohler has to say:

Mr. Langdon, all questions were once spiritual. Since the beginning of time, spirituality and religion have been called on to fill in the gaps that science did not understand. The rising and setting of the sun was once attributed to Helios and a flaming chariot. Earthquakes and tidal waves were the wrath of Poseidon. Science has now proven those gods to be false idols. Soon all Gods will be proven to be false idols. Science has now provided answers to almost every question man can ask (Brown, 2000: p. 43).

Most science enthusiasts, like Singer, are driven by the logic that because science has been able to provide answers to some questions which hitherto fell within the field of religion, science has replaced religion-God. However, there is reason to wonder if modern science merits such a status.

This paper aims at exploring the ethical implications of Singer's deification of modern science. The advancement of modern science, particularly in the areas of medical technologies such as assisted reproduction and genetic engineering, has given science unprecedented powers over nature in general and human nature in particular. As observed in Singer's works, the progress in science is equally witnessing the decline in religious and Godly authority over nature. Paradoxically, and interestingly, the decline in religious authority and the dethronement of God comes with the transfer of God's attributes to science. When God becomes another idol, like the ancient gods "Helios and Poseidon", as Dan Brown observes, then modern science may become "the measure of all things" (to borrow the phrase of Protagoras). This shift in authority, from God to science, over nature raises a number of moral concerns that need to be critically examined. This paper attempts an answer to the following questions: Is modern science absolute? What are the ethical implications of consecrating modern science as an absolute, dressing it with divine attributes, as Singer does?

This paper is divided into five main sections. In Section 1, we define and clarify the basic terms employed in the paper: Deification and Modern science. Section 2 addresses the key attributes of God, that is, omniscience, omnipotence and omni-benevolence, showing how Singer ascribes these divine attributes to modern science in some of his major works. In Section 4, we examine the ethical implications of ascribing such supreme values to science. Finally, in Section 5, we consider the limits of modern science in relation to nature and the human species in particular.

2. Definition of Key Terms

The term **deification** is derived from the Latin *deus* (God). To deify is to give a thing Godly status. Deification, as used in this paper, is the attribution of divine qualities to modern Western science or the elevation of modern science to an absolute.

Modern Science—This is science whose birth can be traced to the 16th and 17th centuries with founding fathers like Galileo, Rene Descartes and Francis Bacon characterized by a scientific attitude, which lay emphasis on rational impartiality or objectivity. The aim of modern science is to understand and explain how the natural/physical world operates. This new science was established with the vision of making human beings "owners and masters of nature", making them "more wise and more capable than they have been up to now" (Kass, 2003: p. 34). Reasoning from this, one could say that the dream of modern science is to probe into every corner of nature in search of knowledge that would help improve upon the human lot. In Bacon's *New Atlantis*, the agenda of this new science is further laid out to be, "the prolongation of life: the restitution of youth in some degree: the retardation of age: the curing of diseases counted incurable: the mitigation of pain: more easy and less loathsome purgings: transformation of bodies into other bodies" (Bacon, 1803). Thus, following from the agenda outlined above, biomedical sciences, like molecular biology, biochemistry, genetic engineering and various forms of biotechnology, fall within the ambient of modern science. In this paper we use the terms modern science and science interchangeably.

3. How Singer Deifies Modern Science

There are three main absolute qualities which Singer attributes to modern Western science. These include the following: Modern science as omniscient, modern science as omnipotent and modern science as omni-benevolent.

3.1. Modern Science as Omniscient

By accusing humans of "speciesism", that is, the view that human beings aremorally special and superior to other species (Singer, 1994: p. 166), Singer employs the evidence from modern science to explain the origin of the human being. He relies on the Darwinian thesis that humans are the product of evolution and from this premise Singer concludes:

Once the weight of scientific evidence in favor of the theory became apparent, practically, every earlier justification of our supreme place in creation… had to be reconsidered. Intellectually the Darwinian revolution was genuinely revolutionary. Human beings now knew that they were not the special creation of God, made in the divine image and set apart from the animals; *on the contrary, human beings came to realize that they were animals themselves* (Singer, 2009: pp. 205-206).

According to Singer, once science speaks, then the matter is closed. Also, in his consideration of the nature and potentials of the human embryo, Singer looks for scientific evidence to justify the lack of personhood or lack of rationality of the human embryo. He does this by ascertaining scientifically the point at which the human embryo develops a nervous system that makes it susceptible to pain. Based on this, Singer dismisses the metaphysical and religious arguments of the personhood of the human embryo and tags them as "the unscientific Aristotelian embryology of Thomas Aquinas" (Singer, 1994: p. 87). Elsewhere, he is more explicit when he argues to justify abortion as a means to procure happiness and minimize human suffering. He states: "in contrast to the common opinion that the moral question about abortion is a dilemma with no solution, I shall show that, at least within the bounds of non-religious ethics, there is a clear-cut answer and those who take a different view are simply mistaken" (Singer, 1993: p. 137). The problem here is that Singer bases his arguments only on the evidence of science and non-religious ethics to justify the point at which the human embryo starts developing what

he refers to as "morally relevant characteristics", such as, "rationality, self-consciousness, awareness, autonomy, pleasure and pain" (Singer, 1993: p. 151). The question is: What about religious and other cultural ethical views about this issue? Don't these have something to offer? Singer seems to dismiss all of these as insufficient and unreliable sources of knowledge about human nature. In doing this, Singer projects modern science as the only genuine and final authoritative knowledge about human origin and other related moral issues, like abortion. He says that modern science is absolute and provides final answers about our human origins and that those who do not see it in this way are "simply mistaken". And if this proposition is true, then modern science is all-knowing about human nature if one takes seriously Singer's non-religious or even atheistic ethical stance. It is from this stand point that Tangwa rightly observes that "even though God may be dead in the Western society, his attributes are evidently not dead" (Tangwa, 1999: p. 226). One observes in this a reincarnation of God in modern science.

In line with Singer, James Watson (the biologist and co-discoverer of the helical structure of the human DNA with Francis Crick in 1953), talking about the question of biotechnology and human rights, maintains that there is nothing special about being human. Human beings do not have rights; they only have basic needs—food, education and health. Needs do not change, but what we perceive as human rights vary not only from one region of the world to another, but also in the course of history. Thus, it is important to be very cautious when we refer to human rights and their intangible nature (Kahn, 2000: p. 67). "I think that", Watson argues, "in the next ten thousand years, the person who will impose himself as the most dominant figure in history will not be Jesus Christ or Mohamed or some great philosopher or mystical figure, but Charles Darwin. One of the consequences of the Darwinian revolution is that if we argue that human beings have inalienable rights, this may also be applied to dogs, rats, and even to mosquitos… where shall we trace the limit?" (Watson, "Biotechnology and Humanism" cited by Kahn, 2000: pp. 67-68).

For Watson, science, and to be more precise, Darwinism may not only become a religion in the near future, but it is going to overturn the authority of religion and the idea of a Christian or Muslim God who is considered to be the creator and sustainer of life in the universe. Here, once again, we see the consecration of science as an absolute and an omnipotent discipline.

3.2. Modern Science as Omnipotent

The agenda of modern science as laid out by its founding fathers, Rene Descartes and Francis Bacon (although these two were very religious philosophers), was to conquer and manipulate nature. From this agenda, science was vested with super powers over nature, to subdue, dominate, exploit and conquer nature. In fact, "a greater part of these dreams have been realized already, even earlier than Bacon and Descartes had envisioned" (Tosam, 2010: p. 10). In this section therefore, we shall consider Singer's views in terms of the modern scientific agenda as conceived in the scientific projects of Descartes and Bacon, and secondly, his considerations of the biomedical project to create a better human species.

The continuous success of modern science demands a lot of sacrifices or "martyrs for science", as Hans Jonas argues (Jonas, 1976: p. 212). These martyrs of science are human beings who are exploited, experimented on and even destroyed for its advancement. For Singer, no sacrifice for a scientific cause should be considered as too great or morally illicit, inasmuch as this would enhance happiness for a majority of humans. In this way, modern science is an absolute to which everything and anything about a human being can be sacrificed. For instance, while arguing for the development of in vitro fertilization, Singer maintains:

In 1978 *the birth of Louise Brown raised a new issue about the status of early human life, for Louise Brown was the first human to have been born from an embryo that had been fertilized outside a human body. The success of Robert Edwards and Patrick Steptoe in demonstrating the possibility of in vitro fertilization was based on several years of experimentation on early human embryos—none of which had survived. IVF is now a routine procedure for certain types of infertility, and has given rise to thousands of healthy babies. To reach this point, however, many more embryos had to be destroyed in experiments, and further improvements of IVF techniques will require continued experimentation* (Singer, 1993: p. 136).

From this perspective, the results of science have been so "beneficial that… virtually no one questions the benefits of the modern scientific endeavor, especially in medicine…" (Kass, 2002: p. 175). In the case of IVF, the thousands of healthy babies to infertile couples, who a few centuries ago, would never have had children is a great advantage. According to Singer, self-consciousness and the ability to suffer pain is the main condition for

conferring a being moral worth/value. Hence, because human embryos are not yet self-conscience entities, it is not morally bad to destroy them in experiments for "further improvements of the IVF techniques…"

However, it would be inappropriate, in a moral discussion, to detach the end from the means. Singer indicates that "the success of Robert Edwards and Patrick Steptoe in demonstrating the possibility of in vitro fertilization, or IVF, was based on several years of experimentation on early human embryos—none of which had survived" (Singer, 1993: p. 136). It is worth noting that Singer quantifies the benefits of IVF in "thousands of healthy babies" to infertile couples. But in referring to the price paid for this, Singer prefers to remain silent. He instead talks about "several years of experimenting on early human embryos, none of which had survived". The question is; how many years and how many human embryos are we talking about here? Singer's silence might have been a subtleway to avoid shocking his readers on the number of human beings destroyed to produce Louise Brown. The Catholic Church argues on this line when she observes that "given the proportion between the total number of embryos produced and those eventually born, the number of embryos sacrificed is extremely high" (*Dignitas Personae*, n.14).Without, therefore, undermining the plight of infertile couples, there is need to ask, if these human embryos that are sacrificed are worth the benefits? What could be the implications of such sacrifices to science and to human dignity? The murder of thousands of human embryos in the IVF process may be equal to cutting off a head to cure a headache (Sheen, 1957: p. 62). That is to say what is sacrificed to remedy infertility is too much in comparison with the good.

Elsewhere, Singer justifies the biomedical project to create healthier and happier human beings. He supports pre-implantation genetic diagnosis (PGD), and the discarding of human embryos and children with genetic abnormalities. For instance, he argues that through PGD human embryos can be screened for genetic abnormalities and, in his words, "discarded if such abnormalities are found" (Singer, 1993: 136). Because of this, Singer argues that abortion is "morally neutral" if the intention is to "prevent much greater suffering by saving the life of a child suffering from an immune system, or to cure Parkinson's or Alzheimer's disease in an older person" (Singer, 1993: p. 166). He is more unequivocal on this issue when he states: "prenatal diagnosis, followed by abortion in selected cases, is common practice in countries with liberal abortion laws and advanced medical techniques. I think this is as it should be" (Singer, 1993: p. 187). Because of these, Singer attempts to re-write the commandments discarding the view that "all human life is of equal worth" (Singer, 1994: p. 190). In his first commandment he states; "recognize that the worth of human life varies" (Singer, 1994: p. 190). To Singer, then, a human being without moral relevant characteristics cannot and should not, according to this new commandment, have the same moral worth with a person. In this category of being, the life of a self-conscious being has more value than that of a conscious being. Based on this, Singer concludes that "modern medical practice has become incompatible with the belief in the equal value of human life" (Singer, 1994: p. 190).

The above views of Singer expose his be life in the omnipotent capacity of modern science, particularly its biomedical project to create a better human species, one that would be without imperfections, disease or blemishes. This agenda is, to J. Habermas, tantamount to being a "partner in evolution" or even "playing God" (Habermas, 2003: p. 21), and we cannot but wonder whether modern science has "God-like knowledge and powers" (Tosam, 2010: p. 248), as Singer accords it. This, of course, indicates that when modern science takes the place of God, if it will ever do so, to create a human being it may equally have to determine the value of human life. That is why modern science, in Singer's perspective, from the trajectory of medicine does not hold the view that all human life is equal (Singer, 1994: p. 189). It measures the value of human life only "within the parameters of 'normality' and physical well-being, thus opening the way for the legitimizing infanticide and euthanasia as well" (*Dignitas Personae*, n.22). Singer maintains that through PGD, a child with genetic abnormalities should be discarded. Once more, he uses modern science to determine who to be born and who not to be born. In an African world view, as Tangwa observes, such decisions belong only to God, because a child, irrespective of its "physical and mental attributes", is seen as a gift and handiwork of God, and thus demands an "unconditional acceptance" (Tangwa, 2000: p. 165). In this worldview, therefore, the intention to weed out the undesired from the desired is a violation of the sacredness of human life, which to Singer can only be determined by the evidence of modern science.

Moreover, the replacement of the authority of religion by science can be seen again in the conversation between Kohler and Langdon in Dan Brown's *Angels and Demons*:

Faith does not protect you. Medicine and airbags… those are things that protect you. God does not protect you. Intelligence protects you. Enlightenment. Put your faith in something with tangible results. How long has it been since someone walked on water? Modern miracles belong to science… even the divine miracle of creation.

Matter from nothing… in a lab. *Who needs God*? *No*! *Science is God* (Brown, 2000: p. 202).

Because the achievements of religion are not palpable or "tangible" as the ubiquitous achievements of techno-science, we need not put our faith in religion. We can put our faith in science because it protects us. Science is the new religion—the new God. Against such tendencies, Joseph Ratzinger cautions: "we encourage scientific research but science is not an absolute, to which everything must be subordinated and eventually sacrificed, including the dignity of man" (Ratzinger, 1987: p. 158).

3.3. Modern Science as Omni-Benevolent

In *Enhancing Evolution*, John Harris attempts an answer to the following question: What is science for? (Harris, 2007: p. xv). To Harris, and in line with Singer, "if so much amount of public money is devoted to science education and scientific research worldwide, it is because of the good that science does" (Harris, 2007: p. xv). From this position, Singer rightly holds that humanity has a lot of benefits to achieve from science. The birth of the first human being through IVF and the provision of "thousands of babies to infertile couples" through IVF is "a medical miracle" (Singer, 1994: p. 93). In this way, modern science has given hope to millions of infertile couples, through its new reproductive technologies. In *Rethinking Life and Death*, Singer brings out numerous examples of what he perceives to be "a medical miracle". He uses the stories of Trisha Marshall and Marion Ploch, (Singer, 1994: pp. 9-16), women who were declared brain dead, after some accidents, but were found to be pregnant. But thanks to modern science a respirator kept them breathing and their hearts beating, their bodies were kept warm and their bodily functioning were continuous. In the case of Marshall, Singer states that "[f] or three and a half months Marshall's heart continued to beat while the respirator pushed air into her lungs, and nutrients were passed down a tube through her nose and into her stomach… On 3 August, a baby was delivered by a caesarean birth, a little premature but healthy" (Singer, 1994: p. 11). In certain parts of the world and in the past centuries in general, this would not have been possible. Modern science is equally offering prospects, through human embryonic experimentation, to millions of people suffering from genetically related diseases such as Parkinson's, cancer, diabetes, sickle cell anemia, heart diseases, Alzheimer's and Huntington disease. The omni-benevolent nature of modern science can thus be summarized in the following phrase: "count the blessings of modern science to humanity, and name them one by one and it will surprise you what modern science has done". It is because of these numerous benefits of modern science that ethicists like Singer and scientists like Watson seem to put their unconditional trust in science.

However, the absolutization of modern science because of its benefits carries with it some ethical concerns. There is a tendency to misconstrue the issue or to carry out a biased moral appraisal if the means to these benefits are not carefully considered. The unbridled plunder of nature and the destruction of vulnerable human beings to enhance the scientific project needs to be taken seriously. Therefore, the debate on the deification of modern science has to go beyond the benefits of modern science. The great achievements and promises of modern science should not blur our moral visions on the issue of the price of what is being sacrificed or to devalue developing or dependent and vulnerable human beings.

Commenting on the splendor of science, Fulton J. Sheen, in *Science, Psychiatry and Religion*, wonders why there should not be "a Science Sunday on which there would be a public act of thanksgiving to Almighty God for allowing us to read some of His wisdom in creation?" He further reflects in the following questions: "who has ever thanked God for a telephone, a television set, a radio, nuclear reactors, and dynamos?" This is because these things, as Sheen holds, are invented because "God gave us minds to discover them" (Sheen, 1957: p. 54). These concerns of Sheen, though genuine, may not be relevant to Singer. This is because from our analysis, one observes a certain gradual shift in the conferment of absolute authority from God to modern science. But it must be observed that modern science does not say everything about nature in general and human nature in particular. On this line of thought Sheen further holds that "science is not the author of the book of nature, it is only the proofreader" (Sheen, 1957: p. 53). In this way, it would be fallacious for science and the scientist to claim absolute knowledge over nature and human nature in particular. It may be argued against us that this view may be a dialogue of the deaf because we cannot blame non-believers for the lack of belief. But our position is that no position should be considered as definitive or absolute, be it a scientific, religious or a non-religious position.

4. The Moral Implications of the Absolutization of Modern Science

Singer's consideration of modern science as an absolute has far-reaching moral implications and consequences.

First, it degrades and undermines the place of epistemological tolerance which is essential in the interdisciplinary and intercultural dialogue in the search for a comprehensive truth about human nature in particular and nature in general. Singer reveals this tendency in his argument in support of abortion when he says that only his view about the issue is tenable and that "those who take a different view are simply mistaken" (Singer, 1993: p. 137). This is epistemological arrogance. Universal knowledge about human nature cannot be restricted only to the evidence provided by science. While considering this evidence, we must also accommodate other ideas like the transcendental and immanent nature of human beings, as defined by other disciplines like metaphysics, psychology, theology and even various religious and cultural worldviews. Secondly, the idea of considering modern science as omniscient, directly or indirectly, reveals the Western attitude of always attempting to monopolize and globalize "the Western ways of thinking and acting, Western ways, manners and style of doing things, Western idiosyncrasies and eccentricities" (Tangwa, 1999: p. 224). Such domineering attitude gives a false epistemological impression that only the West can provide authentic answers to any problem, be it academic, moral, religious, political or scientific. Finally, such considerations raise serious moral concerns as to whether the value or dignity of human life can be determined or measured by only relying on scientific evidence, or calculable in utilitarian/consequentialist terms. The consequences of such tendencies would be (has actually resulted in) grave abuses of the right to life of some human beings, particularly vulnerable and defenseless human beings, as seen in Singer's new commandment about human life: "recognize that the worth of human life varies," which is a revision of the old commandment which states that, or stated that (as Singer may prefer that we put it) "treat all human life as of equal worth (Singer, 1994: p. 190). For instance, the Western conception of the human person is heavily depended on the modern scientific mechanistic view of nature, which is not only dehumanizing, but also neglects the importance of the subjective element—the metaphysical, spiritual and moral facets of life. Without these important components, a person is incomplete. The subjective element has also played a very key role in human civilization (Tosam, 2010). Regretting the neglect of this vital aspect of humankind by this Western mechanistic/materialistic worldview, Lewis Mumford writes:

If science as it was conceived in the seventeenth century had embraced all the phenomena of nature, including man himself neither the theologian, the mystic, the lover, nor the poet would have been so peremptorily exiled at the beginning; *nor would it have seemed possible to suggest, as many besides Herbert Spencer have since done, that science if pursued universally and rigorously would finally eliminate them* (Mumford, 1970).

The subjective and objective aspects of reality are two important components which make a complete and holistic human being. Human beings are not merely their bodies, that is, alterable materials; they are also moral, spiritual and subjective beings. The mechanistic view of human nature is reductionist. It is from this standpoint that human beings are not part of the natural mechanism which is determined by causal laws.

Moreover, the attempt to "Godify" science comes with a lot of risks; risks which, as imperfect beings, it may be difficult to foresee and/or overturn. This perspective of human imperfection is best captured in an ancient Indian fable which goes thus:

Four royal sons were questioning what specialty they should master. *They said to one another*, "*let us search the earth and learn a special science*". *So they decided, and after they had agreed on a place where they would meet again, the four brothers started off, each in a different direction. Time went by and the brothers met again at the appointed meeting place, and they asked one another what they had learned*. "*I have mastered a science,* " *said the first,* "*which makes it possible for me, if I have nothing but a piece of bone of some creature, to create straightaway the flesh that goes with it*". "*I*", *said the second,* "*know how to grow that creature's skin and hair if there is flesh on its bones*". *The third said,* "*I am able to create its limbs if I have the flesh, the skin and the hair*". "*And I*", *concluded the fourth,* "*know how to give life to that creature if its form is complete with limbs*".

Thereupon, the four brothers went into the jungle to find a piece of bone so that they could demonstrate their specialties. *As fate would have it, the bone they found was a lion's, but they did not know that and picked up the bone*. *One added flesh to the bone, the second grew hide and hair, the third completed it with matching the limbs, and the fourth gave the lion life*. *Shaking its heavy mane, the ferocious beast arose with its menacing mouth, sharp teeth, and merciless claws and jumped on his creators*. *He killed them all and vanished contentedly into the jungle* (Buitenen, 1961: pp. 50-51).

Sheen expresses similar concerns when he refers to a dinner conversation in 1869, recorded in the Journal of the Goncourt brothers. He writes:

Pierre Bertholet, the famous French scientist who was at the dinner, explained that science had just begun to lisp the alphabet of destruction. He predicted that, in one hundred years, "man would know of what the atom

was constituted and would be able at will to moderate, extinguish, and light up the sun as if it were a gas lamp". *The Goncourt brother raised no objection but stated, "we have a feeling that when this time comes to science, God with his white beard will come down to earth, swinging a bunch of keys and will say to humanity the way they say at five o'clock*: "*Closing time gentlemen*" *and then we will have to start over again* (Sheen, 1957: pp. 59-60).

The above citations emphasize the idea of human limitation in spite of the huge knowledge God/Nature has put to our disposal; knowledge which allows us to penetrate into the deepest recesses of nature in ways that we may be able to alter or modify our God-given nature as we see fit, we are still imperfect and limited beings.

5. The Accusation of Modern Science as an Absolute

Despite the claims of Singer, and some contemporary scientists like Watson, on the absolute nature of modern science, it is important to ask the following questions: What are the limits of science? Nature is made of two important elements/parts; the material/physical and the metaphysical/spiritual, science is limited only to the natural/empirical world. Sciencecannot tell us anything about metaphysical and moral truths.

While accusing Singer of absolutizing modern science, we are not underestimating the contributions of modern science in shading light on human nature and nature as a whole. We argue that it would be an overestimation of the capacities of modern science to give it a final say on human nature and origin, and to dismiss or downplay the contributions of the other disciplines. In the words of Evandro Agazzi, science can tell the truth about humanity, but not all the truth, because science is not an absolute. Agazzi goes further to argue that:

Precisely because truth is always relative in this referential sense, it would be absurd to pretend that any partial image is true also about other domains of reference, and even less about the whole of the thing from which the partial set of attributes has been selected. Coming back to our theme we can say that any of the different sciences (*natural and human*) *that offer scientific images of man tell the truth about man, but do not tell all the truth. One might think that in order to know "all the truth" it would be sufficient to accommodate the partial truths coming from all the single sciences, but this conclusion is untenable. First it alludes to a kind of infinite and indefinite task* (*not only the present sciences but also future ones should be taken into consideration*); *second, it is still biased by scientism, because it is said that only the accumulation of scientific images could contribute to the attainment of the complete truth. But this is simply a dogmatic presupposition that excludes the possibility that other kinds of truth could contribute to the attainment of complete truth or, better, of the whole truth, that is, the truth regarding "the whole" in its globality, in which the relations between the different partial images should also be considered* (Agazzi, 2011: *Rethinking Human Nature*, p. 79).

Agazzi is not implying that it is impossible to have complete knowledge about human nature. Neither is he ordaining skepticism. Rather to him, it is impossible and quite implausible for any particular discipline to claim to possess the whole truth about human nature. In this sense, therefore, all the different sciences that offer insightsimages of humans tell at least some truth about humans but not the whole truth. What Agazzi is advocating is epistemological dialogue and tolerance. Other disciplines that offer scientific images of mankind could contribute to the attainment of a comprehensive knowledge about the human being and nature in general.

6. Conclusion

From the above analysis, we can conclude that in spite the immeasurable achievements of modern science, it is not an absolute as Singer seems to claim in some of his principal works. The decline in the authority of religion, characteristic of the Western world today, is giving way to the veneration of science as if science is the substitute of God. In this regard Tangwa writes:

It could be said that the Western society today is one in which God is, more or less dead, in spite of its monumental churches, cathedrals, mosques, synagogues etc., relics of perhaps, a more genuinely religious epoch, which now serve mainly the function of tourist attractions. But even though God may be dead in Western society, his attributes are evidently not dead (Tangwa, 2000: p. 226).

These supreme attributes (omniscience, omnipotence and omni-benevolence) are being arrogated to modern science.But, as we have argued in this paper, science does not know everything about nature and cannot give us complete and definitive knowledge about human nature and nature in general because it is limited in its scope of investigation. Its field of investigation is limited only to the physical or material world. There are also metaphysical and moral questions which are beyond and above the scope of modern science. Moreover, even within

its scope, not everything can be claimed with absolute certainty because scientific knowledge is based on available knowledge which at times may be false.

Moreover, scientific innovations, as they are instigated by fallible human beings, may result in some unexpected and unpleasant consequences. Reasoning from this, therefore, if science is a "God", it is a monster-God that, like the lion cited in Buitenen above, may eventually destroy everything, even its maker(s). Human beings who have taken upon themselves the power to create, are neither omnipotent nor omniscience, not even omnibenevolent. Therefore, while acknowledging the grandeur and achievements of science we maintain, contra Singer, that modern science is not an absolute and cannot be considered as such. The attempt to give science the status of God is simply a manifestation of epistemological arrogance and the validation of a new ethic of life, which promotes the culture of death. Given that modern science will continue to be our benefactor in the future, it is important to underscore the fact that modern scientific progress should be accompanied by moral progress. Once the two are divorced, the result may be the creation of a monster-God which may devour everything, including its manufacturer(s), and "vanish into the jungle".

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