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21st Century Impacting Factors**

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**Science and Religion:
21st Century Impacting Factors**

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Abstract

This paper explores the conflict between Religion and Science in the context of 21st century trends. The advances in science in the field of cosmology and the advent of technological developments such as genetics, nanotechnology, and medical science in general has placed an ever-increasing strain and are in the process of generating more and more areas for conflict, as science move into areas in which Religion traditionally held strong views. In addition, Religion's position and how it is viewed in the modern world is ever changing in a dynamic and complex fashion. There is however increasing evidence that there are areas of cooperation between Religion and science, in a manner which can serve the objectives of both.

Keywords: Cosmology, Genetics, Evolution, Religion, Ethics, Nanotechnology

Introduction

Religion faces extraordinary challenges in the 21st century. Advances in science and technology have transformed our world view and produced dramatic changes in lifestyle and material wellbeing. But this enormous progress has left religion behind. Theology has not in recent years kept up with these developments, since the controversial debate between religion and science has seen Christianity attacked more viciously than any other religion or belief system. However, the rise in Christian Apologists conversation on the seemingly conflictual themes juxtaposing religion in opposition to science, indicate a definitive return of the Christian Church to this ongoing debate on reason and blind faith, in a renewed attempt to bridge the gap on this to Theological scholars perceived divide. Modern science such as developments in cosmology, nanotechnology and genetics, is however seen to be destabilizing the very basis on which religious belief are based in that they provide answers in a way that religion cannot. Scientific knowledge and insights in its answers to questions such as how the universe originated and where and how life began have grown exponentially. In addition to this, the new technologies and science has generated new areas of conflict in relation to ethics. Biology has made dramatic advances in its understanding of evolution. Medicine have in some areas taken over the role of God in decisions on genetic manipulation, rectifying mutations within the cell of the fetus, aborting the misformed fetus, cloning, premature death with dignity of the terminally ill, etc. Similarly, advances in the scientific theory of human nature has prompted the conclusion that man has been created in the image of God can be put aside. In many areas, scientific theories contradict what Religion has to say about especially the Creation of both the universe and mankind and about morals and ethics. Herein lies the source of conflicts, and trends within modern science has an impact on the ongoing Religion versus Science debate.

In some places the questions are being asked: Has science become the religion of the 21st Century. Modern science has pushed God into a tiny corner.

The Evolution Debate

The Evolution debate has always been at the center of the Religion versus Science debate. There are very few aspects of the debate that causes such a controversy as the issue of evolution. Darwin published his work on the Origin of Species in 1859. His Theory of Natural selection sparked discussion worldwide. The initial opposition, stemmed directly from the fact that it challenged the strictly biblical account of how the earth and humans were created.

His ideas were especially controversial within the Church. The controversy gave rise to a number of divergent views in a spectrum that ranges from the theory being accepted as science, to religious views being married to the

theory. The theory was published at a time when the church held enormous power and religion was to a large extent regarded as the glue of society. Anything that challenged this was upsetting.

The area of education has been an arena where the conflict between religion and science on the issue of evolution and creation played out, even as early as the 1920s. There was a particular lack of enthusiasm for the introduction of the evolution concept in schools, in the United States. This conflict also played out in US courts and court rulings in the issue.

Today, there is an attempt by most to reconcile the theory with religious views. Pope Francis recently remarked that theories such as the Evolution Theory are not contradictory to the role of the Divine Creator, and that the creator is not a magician, whose work was a work of chaos, and made provision for the co-existence of religious views on creation and evolution (Matyszczyk, 2014). In his profound work, *Finding Darwin's God*, Miller (1999, 291) argues that science and religion offer different but compatible views on life. In it he contends that, properly understood, evolution adds depth and meaning not only to a strictly scientific view of the world, but also to a spiritual one. These are examples of a trend to narrow the gap between the views of Science and Religion on the issue of evolution, in a positive manner. Similar sentiments are expressed in by Dowe (2005) and Barbour (1997).

Nanotechnology

Nanotechnology, which is the control of matter at the atomic or molecular level, has generated a huge debate between religion and science on moral and ethical issues relating to the associated technologies.

The ability to engineer at the atomic or molecular scale has the potential to generate technologies that can affect all aspects of human life. The big question for Religion is the extent to which the technology is morally acceptable. Survey research indicates that religious belief will be one of the most powerful influences in shaping public views about nanotechnology (Toumey, 2011). There is also a varying degree to which people view the technology as morally acceptable. Research done by Dietram Scheufele and presented to the annual meeting of the American Association for the Advancement (Devitt, 2008), indicates that religion exerts more influence in the USA than in Europe. Scheufele ascribes this to the fact that religion plays a bigger role in people's life in the US than in Europe, who has a more secular perspective.

It is however astonishing that the religious public stands in opposition to the technology. Scheufele reasons that Americans with strong religious convictions believes that nanotechnology, biotechnology and stem cell research are lumped together as means to enhance human qualities. Researchers are viewed as "playing God" when they create materials that do not occur in nature, especially where nanotechnology and biotechnology intertwine. (Toumey, 2011) ascribes this resistance to factors such as that nanotechnology threatened certain "shared moral boundaries" that constitute the nature and

meaning of “being human”, concerns about control and power and concerns about threats to individual autonomy.

Nanotechnology-based products have grown dramatically over the last years from technologies to release of medicine in the body, thin-film photovoltaics, super-hard surfaces, and many lightweight strong objects. Religion and religious views will affect the development of nanotechnologies, by affecting the economics for research and by judging the morality of developments on an ongoing basis. Religion has traditionally played the role of being the institution of society that establishes moral standards, although this role is under increasing scrutiny in today’s society. Religious positions on nanotechnology are however underdeveloped at this point because of the lack of knowledge on nanotechnology. Brossard, et al., (2009) reminds however that factual knowledge tends to be interpreted through the lens of religious beliefs. This in turn has implications for the level of public support for the technology and hence funding of the technology.

Advances in Medical Science

Advances in medical science have resulted in the gradual improvement in not only quality of life, but also life span. This has resulted in a trend in Religion to no longer emphasize pain and death of the current life in teachings, but to emphasize to positive. This trend has a long history. From ancient times, society has largely put their faith in Religion and God for good health and delayed mortality and longevity. For thousands of years, the Church has maintained power over control over health. The church historically played a major role in providing care to the sick and wounded, and this was seen as an integral part of spreading the gospel, in the Christian Judeo context. Recently however, the Church’s influence has declined. Since the mid-seventies, with the advent of medical technologies such as heart transplants, there has been a gradual transfer of faith in Religion for good health to faith and trust in medical science. Koenig, et al. (2001) presents a complete treatise on the history of the relationship between medical science and religion.

There are a number of trends in the relationship between the medical science and religion. Some of these would include the recognition that Religion can complement medical interventions. Research in the area of the relationship between Religion, Spirituality and medical science has risen rapidly over the last decade. Research that has been published in various peer reviewed journals, such as *Mind/Body Medicine* (Harvard) and the *Journal of Religion and Health* (Springer) have concluded that there are relationships between medical treatment, Religion and Spirituality that can be exploited to the benefit of the well-being of patients. Much more research is required on the extent of causality and exactly how these areas impact on each other. These trends have partly arisen from a recognition that doctors have forgotten about compassion and the need to recognize the spiritual concerns of patients (Puchalski & Larson, 1998).

In 1944, the quantum physicist Erwin Schrödinger introduced the concept of a 'code' of life in his book "What is Life?" (Schrödinger, 1992). There have been many debates over the influence of Schrödinger's book, but there is consensus that some of his insights lead to the discovery of DNA which provided the world with the key to life and what is currently experienced as the bio-molecular revolution and the explosion of research in genetics. The impact from this revolution is regarded as one of the greatest technological in world history that will likely span many more decades to come. It should ultimately provide human beings with the capability of manipulating life at its most fundamental levels, from producing bioengineered tissues/organs to controlling life itself. This has led to a conflict with Religion, especially in the particular in the field of genetics and genetic engineering. Research on the eradication of diseases in the unborn child, cloning and genetic tailoring are equated with science "attempting to play God". Genetic embryo and fetal screening, through which the predisposition for certain abnormalities can be detected prior to birth, is equally controversial and is viewed as interference in the work of God.

There is however areas in which the objectives and world views of Religion and that of genetic engineering overlaps. Holinger (1999, 302) argues that Religion, whose objective it should be to heal and to support those that suffer, should harness its goodness and limit its evils. He points out that breakthroughs in science were often resisted by Christians for fear that it would undermine some dimension of faith, but as caretakers of God's garden, the Religious are called to what is good and to restrain the ignoble.

Declining Influence of Religion?

Traditionally Religion has been the source of all wisdom and morality. Since the beginning of time Religion has been closely related to morality. There is school of thought that claims that there is a decreasing frequency of religious practice and a general trend towards disaffiliation from religion (Uecker, et al., 2007). As early as 1900 the question of Religious decline has been an issue of debate. Briggs (1900) asked the question whether religion is in decline. He realized that theologians, the church and Christianity in particular were starting to harmonize the "achievement of modern times" with their own dogma. One can therefore come to the conclusion that this is a very old debate.

The Catholic Church is severely affected by the pedophilia pandemic and have been losing support all over the world, especially in the form of attendances. For many years the church's authority was premised in its control of morality and more specifically sexual morals. Over many years it has been the moral beacon of especially the Western World. The advent of sex scandals within especially the Catholic Church has undermined this premise, and has contributed to the decline in authority of the Christian Church. The church's dealing with Social Issues such as homosexuality, same sex marriage and transgenderism has further contributed to dwindling numbers in congregations.

Then there is the view of Secularism which assumes that between Science and Religion there is a negative correlation between the Growth of the influence of Science and that of Religion, faith and reason, and that the two are intrinsically conflicted.

The current resurgence in fundamentalism, however poses a serious challenge to the argument that religion is on the decline. The resurgence of fundamentalism which occurred since the 1970's was unexpected as many considered that trend towards increasing secularization as irreversible and inevitable (Riesebrodt, 2000). This trend is not only in the form of for instance fundamentalist Islam, but also is a trend in some Western societies such as that in the US. In the West in particular, this resurgence comes in the form of a public force, and where Religion increasingly plays a role in the political arena. This is as a result of complex confluence of sociological change and which also finds some of its origins in the deprivatization of religion. Casanova (1994) deals extensively with this process. Armstrong (2001) identifies three fundamentalist movements, namely Judaism, in Islam and American Protestantism. She argues convincingly, that the fundamentalist movement is a definitive response to a secularist, technology driven world. The rise in fundamentalism has an increasingly significant impact on the science religion debate. This impact can for instance be observed in the world of school education, especially in the US, though less so in Europe. It is evident in the US education model.

Iannaccone (2004) wisely concludes however, that there is no simple path between from scientific discovery and technological progress to faith-free skepticism, and that there are signs that Religion are adapting by emphasizing the materialistic, positive experiences rather than the traditional "fire and brimstone" teachings.

The question of whether Religion will decline to the extent of nonexistence is a complex one. From the above discussion it is clear that it is more likely that it will continue to exist but in a changed form, impacted by fundamentalism, secularism and science and technology itself.

Cooperation between Science and Religion

The relationship between science and especially the Christian faith is frequently depicted as antagonistic and fraught with conflict. This conflict has a long and complicated history, and changes in the relationship cannot be described as linear in any way. In 1874 Draper contended that "the history of science is not a mere record of isolated discoveries; it is a narrative of the conflict of two contending powers: the expansive force of human intellect and the compression arising from traditionary faith".

There is however a growing trend towards cooperation between Science and Religion. There is also growing Purists on both side of the debate who do however feel that such positions are hypocritical and dishonest. The National Academy of Sciences in one of their recent publications has come to the

conclusion that science cannot be the only manner in which knowledge is acquired, and that humans develop their understanding of the world around them through means that is beyond the dominion of science. Such means would include religious experiences. The Vatican through the Pontiff John Paul II similarly issued an Encyclical Letter, “Fides et Ratio” (Faith and Reason) in which it is argued that the truth attained by Philosophy and Science and that attained through faith cannot be treated as mutually exclusive. Further, theologians are asked to be bold enough to adopt a “Christian philosophy”, which aims to seek for the truths that rationality and philosophy can reveal, but in a manner that is in union with faith. In turn, he urges that faith and reason work towards a unity that does not compromise their mutual autonomy.

Conclusion

The rapidly increasing rate at which technology develops in the 21st century, especially in areas that interfaces with what was traditionally the areas of conflict between Religion and Science, will lead to the potential for more conflict and debate between the two. The ethical and moral dilemmas that technological advancement and the practical application of such advances pose, will bring with it factionalisation, already evident even within Religious groups across the spectrum.

Religion is increasingly affected by Science. More recently, the prosperity, better health, debates on the morality of practices such as stem cell research and materialism that science has brought, gave rise to Religious fundamentalism in response. In addition, there are signs that Religion adapts to this in some cases by emphasizing positivity and prosperity in its teachings. Religion and Christianity per se also increasingly uses scientific progress for its own advancement and purposes, through social media and televangelism. There is also growing trend towards faith gaining supremacy over belief, becoming the defining renewing quality, with religious people today being less patriarchal, much less dogmatic; instead, more pragmatic, intent on spiritual disciplines rather than doctrines. In the past century, with globalization and the Information Age evolution, impacting science with its transparent, scientifically verifiable method has assisted in resolving the confusion between the worlds of Philosophy and Theology on the use of the word ‘belief’ in the translation of the biblical terms of faith, since the thinkers and church leaders were of the conviction that society needs religion to maintain a level of order. Science has resolved the challenge posed on the credibility of propositions to be accepted, resulting in a religion embedded in the subscription to mandatory beliefs no longer being viable. Hence, the witnessing of a revival of religion globally, with Christianity regaining its previous momentum. The post-dogmatic character to faith, reminiscent of the early church, is evident amidst reactionary fundamentalist efforts to stem its tide, particularly in the 21st Century believer seeking a mystical experience of God, one beyond reason,

embedded in a faith experienced in an encounter with the Divine via the movement of the Spirit, introducing a future of faith expressed in the Age of the Spirit.

Given trends indicating that 21st Century informed man remains fundamentally a spiritual being in search of an encounter with the Spirit, there is an increasing evidence of cooperation between Religion and Science. Religion increasingly takes account of reason and rationality in its teachings, whereas Science has come to realize that Religion has a role to play in guidance on morality and ethics. In the area of medical science and health and mental care, Religion play an increasingly important and positive role in contributing to solutions in these areas. It is therefore evidently unlikely that Religion and its worshipping practices will disappear; to the contrary, there is a large swing towards reconnecting with God through fundamentalist beliefs or a mystical faith encounter with God in many parts of the world. In this context it is important to remember the words of Pope John Paul II: "In order to delineate the field of their own study, the exegete and the theologian must keep informed about the results achieved by the natural sciences" (Message to the Pontifical Academy of Sciences, October 22, 1996).

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