

Status of Modern Science and Religion

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Abstract

Scientific innovations and discoveries are transforming the lives of many around the globe. Science commands a greater share of attention and respect from humanity than ever before in the history. Perhaps it has become the new religion or a faith system of the world. In light of the current wars, unsettled political disputes, violence in the Middle East, all with their latent religious connotations, there is a growing interest to examine all the major religions of the world. While the admiration for the artistic and aesthetic facets of religion cannot be forgotten, scholars question the survival of the traditional faith systems and practices in current forms especially in economically and educationally advanced nations. If religions ought to have vitality and respect, they need to resort to the original and central dogma of love i.e., humanitarian aid to alleviate the pains and sufferings of economically disadvantaged people.

A. Science today and the future

Scientific discoveries and inventions over the past century alone have transformed the lives of humans to a new standard never witnessed in human history. Along with the increased convenience and overall quality of living came increased longevity and hence, the human population has quadrupled during this time. Our views of all life forms and the nature of the universe have also changed drastically. The knowledge that humans are connected genetically to all living forms allows us to bestow dignity and prompt preservation of other species. We endeavor to benefit from the secrets of a tiny cell as well as the complexities of the universe that surround us. Technological achievements, especially in the information arena, made the globe shrink even further. We communicate with all nations with ease and understand the multiple cultures and their aspirations. This journey of ventures and scientific marvels is truly exciting and awe-inspiring. With all that, nevertheless we prove that we are still humans retracing earlier sad histories in today's world. There is still violence and wars due to misunderstanding and misconducts among several nations based on economic, political, social, racial, or even religious reasons.

We will examine three vital areas in which major breakthroughs in science have helped foster overall human welfare. Addressing human health first, recent breakthroughs in cellular sciences specifically related to stem cells announce promises to cure diseases such as Alzheimer's, Parkinson's, dementias and other related neurological disorders. This new frontier offers also hopes for certain kinds of cancer, autoimmune diseases, and organ transplants. Prevention of many of the communicable diseases today owes much to the ongoing research in many sectors—vaccinations, pharmaceutical measures against drug-resistant bacterial and viral

forms, better understanding of epidemiological factors, etc. The etiologies of emerging diseases such as AIDS, BSE, Ebola, Influenza, and others alike are quickly determined to ward off massive human deaths. The treatment and prevention procedures are immediately brought to public awareness. Advocacy by the scientific community to resist the onset of insidious illnesses such as obesity, lipidemia, arteriosclerosis, hypertension, even excessive sunlight, has led most citizens in the advanced nations to be aware of the risk and the need to alter their behaviors and life styles.

Modern medical technologies such as MRI, CT scan, PET scan, laser surgery, radiation and chemotherapy assist in early diagnosing and preventing the progress of certain deadly diseases such as cancers of the prostate, breast, etc. for which there were no cures in the ancient time. Imaging procedures furthermore guide to improved surgical procedures and early recovery.

In the agricultural front, the advances made in crop sciences over the past forty years have reduced the poverty level in many countries despite the population surge. Without doubt, many Asian countries have boosted the production of rice, wheat, and other grains using short season and dwarf varieties during the Green Revolution in the 1960s. But, now, in the context of widespread drought in many continents, many national leaders, crop scientists, and political advisors insist on a need to formulate a second Green Revolution to prevent massive starvations and food shortages particularly in developing countries.

Genetic manipulations have helped enhance the taste quality, food value, shelf life, etc. of most varieties of vegetables, fruits, and other organic products that adorn the shelves of the market places today. Despite the controversies over the Genetically Modified Organisms (GMO), they helped to limit the food shortages in many nations. Furthermore, research on the genomic constitution of other species has yielded wealth of information related to the control and regulatory mechanisms of the genes. Such information plays a major role in furthering biological research on various species. The awareness that the humans are genetically closer to other organisms, primates in particular, and are products of evolution has been one of the prime outcomes of this type of research.

While claiming that the man's soul however remains beyond science's reach, the notion of evolution of species by natural selection was endorsed Pope John Paul¹ as evident from his assertion, "The sciences of observation describe and measure with ever greater precision the multiple manifestation of life....while theology extracts....the final meaning according to the creator's designs." More plainly uttered words are those of Pope Pius XII in 1950, "Todaynew knowledge leads us to recognize that the theory of evolution is more than a hypothesis."¹

Perhaps, the most notable area of advances is in technology which has shrunk the world to a global village. It is apt to say that we live in a civilization of communication technology. Use of cell phone, computer, satellite-assisted communication and navigation, global TV networks, and other electronic devices is epidemic and it has brought the world to the age of communication. Surprising is the speed at which the global communities are transforming into technological societies. No doubt, there still exist pockets of tribal societies in the continent of Africa, Asia, and South America where the technological benefits have not yet infiltrated. But, even these societies cannot and will not remain isolated for ever.

While the information technology has also augmented international trades, travels, transports, etc. it has also enhanced sharing cultural and traditional values related to religion, art, language, music and history. But, this could prove to be a sensitive area when various cultures and religions interface there will be possibilities for suspicion, friction, and rivalry. But, at least three decades of interactions among the multicultural societies in UK, Canada, and the US have shown that the level of tolerance and mutual appreciation towards each culture has grown substantially. Given ample time this will be the case as well in the international arena.

Unfortunately, the existing knowledge and the comforts offered by sciences have not diminished the animosities, prejudices, rivalries, terrorisms, and even wars among nations. Diverse political, socioeconomic, and religious views provoke misunderstandings and hatred among people. More notably, religious views are often irreconcilable with those of science and the gap between them continues to be wider especially in militant fundamentalism.

The future of science is filled with promises that are achievable. The front line of these will be in human health with specific reference to gene therapy to cure hereditary illnesses. Biotechnology will continue to improve crops, vegetables, fruits, livestock, etc. for human benefits. Effective drugs, vaccinations, and forms of treatments will be made available globally against contagious, food-borne, water-borne, and vector-borne diseases. Cures for many types of cancers will be accomplished. Organ transplants both biological and artificial will be the way of the future for those who for a variety of reasons have lost functioning vital organs. We will also benefit from the research frontiers such as: a) finding and implementing ways to curb global warming, b) exploring oceans not only for resources such as minerals and oil but for farming and facilitating human habitations, c) finding alternate energy sources and limiting pollutants, d) implementing mechanisms by which all nations share the scientific knowledge and helping each other to collectively build and enhance the standard of life for all people, etc. This will also result in equal sharing of responsibilities related to global issues. Space explorations will further reveal the secrets of the universe and man will seek to gain benefits from them. Above all, he as an organism of nature himself will identify his position in the universe better than his previous generations did. There will be no doubt that the scientific knowledge will continue to improve the quality of human life on a planetary scale.

B. Religion—the past, present, and the future

Ancient and present men alike consider god as an incomprehensible, inexplicable, a supernatural mystery force that guides the destiny of humans. This fascinating force needed to be explained and the effective way to the ancients appeared to be to form creative, culturally-slanted, sacred stories. Thus multitudes of religious sects evolved each claiming the superior power of its god or gods. Myths prevail to the core of these religions and they have become the language of the faiths². Armstrong³ argues that humans created religions at the same time as they created works of art implying that religions are man-made literatures. Strangely enough, not all religions have evolved god(s). Elite religions such as Zen Buddhism, Taoism, Confucianism, etc. declare no god and no holiness, but rather that a blissful state of mind can be obtained by self propelled meditation. Regardless, at least to begin with, the ancient world was full of gods. Later, a single god Yahweh, as exemplified by the three Abraham'ic religions, won the battle over the other gods and prevailed. Of these monotheistic religions, Judaism, Christianity, and Islam, the latter

two are far aggressive both in prophesying and proselytizing which had led to the spread of these creeds to many nations of the world.

The history of a nation is truly the history of its religion as it talks elaborately about the story of its god, 'His'tory, as Armstrong³ observed. Hence, is vital to examine the religious perspectives of the modern world as scientific achievements continue to leap without bounds. While each religion asserts its superiority over the others, the believers and the followers of the religion claim that there is only one god and it is their god. One's religion is determined largely by birth and upbringing. Thereafter the traditions sustain themselves using rites and rituals as these are culturally intertwined. Both monotheistic and polytheistic religions perpetuate their respective creeds this way. There is no deeper analysis and acceptance of religion even at the educated class in these societies. Christianity and Islam believe and enforce apocalyptic and proselytizing aspects of the faith and historically they have had animosities and wars over winning souls and conquering lands. Furthermore, both have portrayed intolerance towards opposition and have persecuted and wiped out dissidents of faith, a practice that still exists in certain Islamic countries.

Suppression of reasoning is another aspect of religion which is mandated by its leaders. Pope Gregory warned those with the rational turn of mind that, by looking for cause and effect in the natural world, they were ignoring the will of God. But, strangely enough Paul of the New Testament, the scripture writer himself, is cautious about his own writings, as he states, "Our knowledge is imperfect and our prophecy is imperfect." I Corinthians 13:9. Additionally, one has to heed the counsel of Gilbert de Tournai when he admonishes that "Never will we find the truth, if we content ourselves with what is already known...those things that have been written before us are not laws but guides." Unfortunately, literal interpretation of scripture verses while not employing analytical reasoning nevertheless has resulted in colossal violence and bloodshed in the past and present times as well.

However childish and superstitious is religious faith as Einstein had noted, religious thoughts and practices are pervasive in most human societies. This is true even in the advanced nations such as Canada and the US. In Canada, although the tolerance for various religious

beliefs is increasing, 72% believe in a god, while 23% do not believe in any god.⁴ The degree of secularism there is strangely different by comparison to the US, where the traditional cultural and political influences of religion are intensive, the nonbelievers account for only 8% according to the 2007 Harris Interactive Study. This disparity is largely due to unequal distribution of wealth according to Wilkinson⁵. While poor country like Greece with a fairer distribution of wealth is healthier and happier, a richer nation like the US suffers from the lowest life expectancy among the developed world owing to the widening economic gap between the social classes. The stressful social environment, i.e., living at the bottom of the pecking order with disrespect and low self esteem is to be blamed. Religion offers these classes of people comforting words, hope for prosperity, and above all an eternal life. The belief in gods has been perpetuated the past and the present mainly to satisfy the emotional needs of the poor.

To perhaps illustrate this notion, we can look at the historic beginning of all major religions with specific reference to Christianity. Stark⁶ observed that the early church was not much more than a refuge for the slaves and impoverished masses. At that time, then the message of hope, liberty, and equal social relations and organizations that will lead to prosperity was attractive to the poor and the martyred Christians who numbered less than a thousand. But, their convictions and steadfastness to cling to the creed greatly synergized the faith of other Christians and impressed the pagans as well.

There is much to talk about the positive contributions of the faiths. Many institutionalized religions have served as media through which human imagination and creativity had reached their highest level. The places of worship—cathedrals, churches, mosques, temples, and pagodas display a magnificent architecture and they exist as perpetual reminders of human ingenuity and engineering knowledge. The paintings, mosaics, sculptures, etc. therein attest the marvelous minds and reveal the history of the past. The literary aspects of holy books such as the Bible, Quran, Bhagavad Gita, as well as the mythical epics such as Romer's Iliad and Odyssey, Milton's Paradise Lost, Valmiki's Ramayana, and Viyasa's Mahabharatha, could not be undermined and they could not have been originated if it was not for the tales of gods. All the chants, recitation of scripture verses, or mantras which resonate in the walls of sanctuaries and

echo traversing the air outside the worship sites have a magical and mystical quality that instinctively attracts the human mind.

Proselytizing efforts by various religions had led to mixing of diverse ethnic and cultural groups on a global scale. These human contacts also resulted in improved trade relations. One cannot deny the fact that coffee traveled with Islam whereas Buddhism opened up the Silk Road to connect with multinational business entrepreneurs of that time. Even today educational institutions, hospitals, orphanages, and various types of poverty relief centers, although founded by a certain religion, had indeed benefited all those who needed those services. But, behind these humanitarian services was a drive to transform the infidels and pagans into believers. Once such efforts were partially successful, there arose an ambitious scheme to establish a power base to maneuver the socioeconomic and political aspects of a given nation.

Current global events suggest that the interest towards religions, at least the two major ones, Christianity and Islam is growing from the perspective of their influence on social, economic, and political issues. In Christianity, Jenkins⁷ argues that not only there is ever increasing number but also is a distinctive Christian politics notably in the third world nations. The influence of cardinals like Peru's Cipriani, Brazil's Claudio Hummis, and Honduras's Oscar Rodriguez in Latin American nations on the economic and political issues is noteworthy in recent time. The Catholic Church has learnt, acting as the defenders of the poor, how to exert the political influence by indulging in social justice. The political roles played by the Catholic Church in nations such as Philippines, South Korea, and nearly in all Latin American countries, and Liberia, Zambia, Rwanda are such that they shaped today's existing governments. Jenkins⁷ predicts the Christian masses of the southern hemisphere will harbor nearly one third of the human race with greater political power in the global arena and this trend may be seen even dangerous by the more secular, rational, tolerant nations of the northern hemisphere.

The great monotheistic divides—Christianity and Islam, were instrumental in causing the crusades and jihads and subsequently altering the map of Europe at various times. The animosity between these two great religions still continues to the dismay of the global community. The constitutions of many of the Islamic nations today are faith-based. For example, Article 2 of the

Islamic Republic of Iran insists on, “The one God, his exclusive sovereignty and right to legislate and the necessity of submission to his commands.” In Cairo, the articles 23 and 24 of the Declaration of Human Rights in Islam emphasize, “All rights and freedoms are subject to Islamic Sharia.” Thus, the integration of religion in politics has the horrifying potential to steal the democracy away from the people.

The world has witnessed the destruction of Mayan, Aztec, and Inca cultures by the conquistadores of the 15th century in the Americas. Even though, the initial motivations for invasions were wealth-related, with the blessings from the church the Bible and the priests went along with the invading armies in order to save the souls of the conquered savages. Later, they established nations whose governments were heavily theocracy-influenced.

In the present days, however, the religions are major business enterprises at least in North America. Private ministries flourish in vast numbers and each vies for hoarding wealth and luxury living on the part of the founders and preachers. A well known American preacher who lives in a mansion protected by guards, and flies his private jet to preach the gospel around the nation, is under investigation by the Federal government for possible money scam. Such events have become the common practice in the US nowadays. Several church denominations are extremely zealous to preserve and expand their vast empires in aggressive manners by feeding the spiritual messages to the faithful and, in return, gain their financial supports and tithes.

But, signs are there that churches along with their preaching are increasingly adopting measures to help the poor around world in a variety of manners. They have established diverse global projects such as clean water schemes, constructions of health clinics, schools, orphanages, etc. It seems that these church organizations have identified that the global actions of this nature involving the youth and energetic adults, create stronger appeal and maintain church attendance.

Perhaps, the future and the survival of the church, or religious institutions in general, may depend on such humanitarian outreaches. We live in a world in which many nations still cannot afford to provide adequate food, shelter, and education to its citizens. On the wall of a house in Honduras, I saw a printed poster which read like this: Gloria a Dios en el cielo y en Honduras

paz, techo, y tortillas para todos (Glory to God in heaven and in Honduras peace, roof, and tortillas for everyone). Yes, the basic needs- food and shelter, of all men and women, once are fulfilled there will be peace and time to reflect on the good deeds of god. Gandhi advocated that, “For a hungry man food is god.” Humanity’s primary wants are the very basics and the current world is unable to provide them. When the churches provide such needs, it seems that god himself has directly intervened to rescue humanity.

As future global societies continue to expand their educational facilities and intensify the communicational channels, critical reasoning will prevail in church’s doctrines and following. The world may witness an insidious decline of religious or church influence in both the northern and southern hemispheres. An effective way for the religious organizations to gain respect and acceptance is by accelerating social activism instead of proselytizing, a sort of approach that the former prime minister of Britain, Tony Blair, is advocating to all the major world religions⁸. Because religion plays a major role in human life it is no doubt a strong force and it can muster great social activities in conjunction with globalization to alleviate diseases and poverty among the poor nations. This is truly faith in action, especially when all religions are united, the synergy arising from such union will greatly benefit mankind.

But, for science, it is here to stay. It will continue to flourish as all governments and private sectors finance educational institutions and research laboratories to produce results that will sustain and accelerate human welfare in all frontiers. And faith in science, unlike that of religion, will continue to grow. As one scientist elegantly put it, it has no fear of death and neither does it require jihads or crusades against its critics. But, it will continue to chip away the leftover myths that still persist in diverse religious beliefs as time progresses. Perhaps, the future world soon will discover the mind of god exclusively from the scientific perspective.

Reference list

1. Collins, J. 1996. Vatican Thinking Evolves. *Time*, September 4.
2. Geering, L. 1968. *God in the New World*. Hodder and Stoughton.
3. Armstrong, K. 1993. *A History of God*. Heinemann.
4. The Canadian Press Harris-Decima Survey. 2008. May 22 – May 26.
5. Wilkinson, R. 2005. *The Impact of Inequality: How to Make Sick Societies Healthier*. Rutledge.
6. Stark, R. 1997. *The Rise of Christianity*. Harper Collins.

7. Jenkins, P. 2007. *The Next Christendom—The Coming of Global Christianity*. Oxford University Press.
8. Elliott, M. 2008. Tony Blair's Leap of Faith. *Time*, June 9.

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