

RELIGION IN THE AGE OF SCIENCE*

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Those who believe that man is irremediably religious must be basing their assertion on the fact that all through human history man had some relation with what was "holy". A definition of religion to encompass all occurrences would make it vague and unspecific. Although all religions sooner or later found out that their version was not universally accepted by all, every religion, nevertheless, had some common elements, such as guiding men and principles, saintly books, blessed days, sacred places and ceremonies. The moral imperatives were summarized in codes, such as the Ten Commandments (Judaism), the Five Rules (Islam), or the Eightfold Path (Buddhism). Rigorous disputes and at times bloodshed took place between the traditionalists who adhered to the old practices and the revisionists who opted to march with the changing circumstances.

The impact of religion and the several approaches connected with it demonstrate that this concept is important for all. Moreover, religious institutions and organizations are increasing their activity, which sometimes create conflicts and sometimes help solve a number of crucial problems. Some of these religious organizations have powerful mass communications departments and influence broad masses.

Some have become, in certain countries, agents of change, at home and abroad. For instance, the Iranian Revolution (1979) is a significant mass-based uprising of the century. Not only there are frequent references to Islam's universal revival, groups of Christian fundamentalists are becoming increasingly prominent in Western societies hitherto-known as being secular.

While this phenomenon is admittedly true, religious literature paints a picture of a "boom" to substantiate the thesis that man needs religion more than ever, especially in our age of rapid development in science and technology. Its logic is that modern man exists in the midst of threats,

* Submitted to the International Seminar in Commemoration of the Centenary of Maulana Abul Kalam Azad, New Delhi, 14-16 February 1990.

conflicts, confrontations and fast living in contemporary urbanization. The assertion is that in order to relieve the weight of some of these oppressing realities, man must have a moral compensation.

Religion, like some other manifestations of social organization, material technique and even the fine arts have a continuity that goes back tens of thousands of years, if not more. Science, on the other hand, has a very limited past. It cannot be said that it has become established before the 17th century. There certainly were earlier initial steps that were very important, but its intensive growth dates only from the last century.

While the cultural-humanistic revolution of the Renaissance dealt a mortal blow to scholasticism, the economic revolution, that is, the intense development of commercial and industrial capitalism led to a rapid rise in technology. By the end of the 17th century, beliefs in witchcraft and magical healing had already weakened. The Scientific Revolution of the 18th and the 19th centuries fundamentally changed man's conception of his place in nature.

The universe was no longer a network of hidden omnipotence, with man at the center. He was thus removed from the focal point of the stage in the saga of creation, but the Scientific Revolution envisaged an unprecedented optimism for human capabilities. Scientific knowledge would bring progress and promote human welfare.

Galileo, perhaps more than anyone else, was responsible for the birth of modern science. Cotrading the Catholic Church, he argued that man could hope to understand how the world worked, and, what is more, that this could be done by observing the real world. The Bible was not intended to tell us anything about scientific theories. Galileo's book (**Dialogue Concerning the Two Chief World Systems**), supposedly declaring under Church pressure Copernicanism (the planets orbiting the sun) as "false", was actually a convincing argument in favour of Copernicus. Even after the Inquisition sentenced him to house-arrest for life, his second major book (**Two New Sciences**), smuggled to a publisher in Holland, was another support for Copernicus and also the genesis of modern physics.

But it was Darwin's theory of evolution that left little room for some popular beliefs. Evidence of the transformation of species had already been adduced by Jean Lamarck and others. What was original in Darwin was not the assertion but the explanation of evolution in the theory of natural selection. Even Lucretius (95-51 B.C.) in a poem on the "nature

of the created" (**De Rerum Natura**) stated that man was a product of nature. All living beings developed in it. The Roman anatomist Claudius Galen (c. 200 B.C.) had already underlined the physical similarity between man and apes. Some paid dearly for such convictions. The Inquisition condemned Lucilio Vanini to be burned at stake. The Swedish Carl Linnaeus classified the animal world, placing man (*Homo*) in a special category. It was Lamarck who stated in **The Philosophy of Zoology** (1809) that all modern organisms have "evolved" into what they are now.

Darwin was the one who marshaled all available material with a fidelity to fact. His theory constituted a new notion of biological order. Even to describe what transpired in the struggle for life in consequence of natural selection, Darwin substituted Herbert Spencer's formula of "survival of the fittest" for his own phrase, "preservation of favoured races". But his **Origin of Species** changed the way of seeing the phenomena of life.

The theory of natural selection polarized opinion among scientists. While Marx spoke of dedicating the second book of **Capital** to Darwin, there were hostile views, the common complaint of which was that his theory deprived the history of nature of any sanctions for man as a social or moral being. There was incompatibility between evolutionary science on the hand and theology and any form of moral philosophy on the other.

In 1925 an American teacher (John Scopes) was found "guilty" in a State of Tennessee court for explaining Darwin's theory in class. The prosecutor was no other than William Jennings Bryan (Secretary of State and U.S. Presidential candidate), who took a copy of the Bible in his hand and told all listeners that this book alone was "the source of life".

Some of those who criticized the biological aspects of Darwinistic thought seemed to accept his weakest point, namely, the application of his biological conclusions to society and human relations. Terming their philosophy as "Social Darwinism", the American expansionists of the 1890s made use of such theories (elaborated by John Fiske, Josiah Strong and Benjamin Kidd) to justify what they preferred to call the "Manifest Destiny" of a new world power.

The two greatest intellectual achievements of the 20th century were (1) the theory of relativity which dealt with the large-scale structure of the universe, determined essentially by gravity (Newton) and (2) quantum mechanics which is concerned with the forces that operate at the atomic scale and below. Stephen Hawking's survey of modern cos-

mology (*A Brief History of Time*, 1988) searches for the magnificently named Grand Unification, linking relativity and quantum mechanics. Hawking tries to reconcile these two theories, hoping to hold the key to understanding how the universe came into being.

The level that the current Scientific and the Technological Revolution has achieved attracted the attention of scientists, scholars, writers, politicians and religious leaders. Scientific journals and mass media almost daily report new discoveries. The accomplishments of modern science is spectacular. The whole process is moulding another Industrial Revolution which affects a radical upheaval in social production.

Some interpreters view the current Scientific and Technological Revolution as just another upheaval, similar to those in the history of production. Some others maintain, on the other hand, that it is a fundamentally new unprecedented upheaval.

It is true that, just like the Industrial Revolution of the 18th and the 19th centuries, the contemporary one caused an upheaval, affecting changes in energy resources, environment, over-all production in industry and agriculture, communications and daily life. But, unlike the experience of the past two centuries, it has gone beyond that, converting science into a direct productive force to serve society.

The current Scientific and Technological Revolution is the sum total of many constituents. It simultaneously represents a scientific and industrial revolution. Whereas formerly science, engineering and production developed separately, until the Industrial Revolution of the last two centuries, the current revolution is affecting all three components at once. Whereas earlier science stirred individual industries, it is now changing the entire economy. It may, then, be asserted that the present Scientific and Technological Revolution is different from upheavals that have occurred earlier.

What is the essence of the current revolution? Is it nuclear power? Automation? Synthetic material? Advances in nuclear power are amazing. Some United Nations experts calculated that the proportion of the world's total energy resources obtained from nuclear power will be 25.8 percent by the year 2000. The number of electronic computers is multiplying every year, as they invade new areas of work and life. Synthetic materials are also penetrating into man's various activities, but they will probably play a subservient role.

Such technological developments represent, however, only certain, though important, aspects of complex and interrelated changes in all

areas of human activity. Science gets industrialized while material production is invaded by science. This development is inevitable as terrestrial space is conquered, new sources of energy are discovered and computer systems penetrate all walks of life.

The current Scientific and the Technological Revolution is also a socio-economic phenomenon. It has also triggered off enormous ecological changes, some of which are to man's advantage and some to his disadvantage. While production is accelerated even further, there is a growing concentration of industrial waste in the biosphere. Some of these problems have global significance.

This brings one to the question of delimitation. The first manifestation of the Scientific and the Technological Revolution was the atomic bombing of Hiroshima and Nagasaki. Modern weapons of war, today, have much greater destructive capacity, threatening mankind.

Where does religion stand in the midst of such colossal transformations? The aspirations of believers are also being formed under the influence of the epoch's revolutionary trends such as democratic movements, scientific accomplishments and the spreading of secular ideology. The clergy generally follows a modernistic course in search of renovating interpretations of contemporary realities. Science is no longer considered by religious modernists to rival the "divine".

All religions have their own organizations, and the latter depend on the mass and the rank-and-file. The believers expect the leaders to take positions in respect to many urgent problems concerning mankind, from ecology to international tension. No doubt, many clergymen from all religions believe in supporting just causes. But they take into account the preferences of their followers. The religious organizations modernize their positions in almost every field.

The consequences of such modernistic tendencies may not be the same everywhere. A visible process of integration may be observed among the theologians of different denominations. There are probably several reasons why they wish to bring their forces closer together. One reason may be to stay united and therefore be stronger against the spread of secularism.

Secularism, cherished in India, our host country, and in Turkey, where I come from, is actually a world phenomenon. It can be defined as an attempt to establish independent knowledge purged of supernatural presuppositions. It emphasizes truths perceptible by human reason, which can operate in verifiable experience.

The power of secularized idealism derives in large part from its close connection with science. This union of social and scientific secularism is the culmination of world development in the realm of thought, politics and science since the Middle Ages.

It has already been stated that religion has been generally reshaping and adapting itself to the contemporary epoch. It wants to hold its positions. New realities also modify the content of religious concepts and interrelate "old" and "new" components.

In any faith, however, religious modernism is a complex phenomenon. While the "modernists" seek ways to protect the religious idea in a secular age, there are wide areas of disagreement. American (Gabriel Vahanian, Harvey Cox, Thomas Altizer, William Hamilton, Paul Van Buren), English (Robert Smith, Bishop J.A. Robinson), German (Rudolf Bultman, Dietrich Bonhoeffer) and other theologians have contributed to the trend of modernization. A sense of social responsibility takes the place of traditional Christian virtues such as submissiveness and hope for reward in another world. The concepts of Vahanian, for instance, rest on the idea of incompatibility between old religious forms and contemporary culture.

There are others who harbour much more radical views. Giving up certain religious notions, some of them break away, not only from concrete historical forms, but also from the very essence of religion. Pierre Teilhard de Chardin (1881-1955), for instance, has broken away from the official church dogma. His concept on the origin of man differs so radically from the interpretation of the church that he rejects the original sin and evil. Left-wing religious groups frequently refer to him to justify their interference in the life of society. In fact, all religious trends now display unwillingness to associate themselves with the loathsome practices of some right-wing régimes. For instance, a large part of the clergy in the Republic of South Africa and Namibia have condemned racism, apartheid and different forms of colonialism.

But there are also a revival of orthodox religious beliefs and new kinds of worship, ranging from fanatical (like the American worshippers of the Devil) to mystical cults. As a recent (1984) book (**Religion in the Secular City**) by Harvey Cox demonstrates, Christian fundamentalists (such as the "Moral Majority" movement among the Protestants and the "liberation theology" of many Catholics) maintain that the world is so wicked and fraught with danger that God would soon destroy it, saving only those who had placed their trust in the Second Coming of Jesus. Denying the possibility of a change, this view leaves no room in favour

of activity for the better. It considers a nuclear war, for instance, not only inevitable but also desirable because Jesus will guide them anyway to a purified earth. Employing means of mass communication, this view makes use of the available political weapons of a secular society to impose its preferences on others. It insists that the fundamentalist view of creation be taught in the classes.

Fanatics belonging to religious Zionist parties have formed the core of various organizations, including GnsH Emunim (the Bloc of Believers), the strike force of Israeli expansionism in the occupied West Bank. Back in the 1930s, Herut, an extreme right-wing (Zionist) party, set up paramilitary youth groups whose members later committed the notorious massacre at the Arab village of Deir Yasin. One very important aspect of the new State of Palestine and the P.L.O. is that both are based on secularism.

Scientists who continuously study data may change their views on any conceivable subject. Religion tends to believe in more static theories. Scientific outlook implies a critical attitude while religious fundamentalism purports to explain everything with a set of beliefs.