

Science and Religion: From Conflict to Conversation

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The relationship between science and religion takes many forms as the two fields of knowledge are too broad. They employ different methods and address different questions. The scientific method relies on an objective approach to measure, calculate, and describe the natural, physical and material universe. Religious methods are usually more subjective or intersubjective in community, relying on varying notions of authority, ideas believed to have been revealed, intuition, belief in the supernatural, individual experience, or a combination of these to understand the universe. Historically, science has had a complex relationship with religion. Religious doctrines and motivations have sometimes influenced scientific development, while scientific knowledge has had effects on religious beliefs. The classical works of different religions such as Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity, and Islam show an appreciation of the natural world, but most of them express little or no interest in any systematic investigation of the nature. Some of the leading thinkers in Judaism, Christianity and Islam undertook a project of synthesis between religion, philosophy and natural sciences. For example, the Islamic philosopher Averroes (Ibn-Rushd), the Jewish philosopher Maimonides, and the Christian philosopher Augustine of Hippo, held that if religious teachings were found to contradict certain direct observations about the natural world, then it would be obligatory to re-evaluate either the interpretation of the scientific facts or the understanding of the religious teachings.

In the present discourse the word of science is used in terms of scientific method in general without any reference to any specialized branch of science i.e. physics, chemistry or biology. Similarly the term of

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religion is also used in a general and comprehensive sense, based on the common characteristics of all the religions without any reference to any specific religion like Christianity, Judaism, Islam, Hinduism or Buddhism. So the arguments developed in the subsequent discussion must be viewed from the stand-point of science and religion as much.

The history of human intellectual development reveals that human consciousness has grown through three different stages of evolution. Firstly, the early Greek civilization was dominated by philosophy which was characterized by the theme of reason. Still its final objective is to reach the ultimate reality through the mediation of pure reason. Greek philosophers were among the first in the West to explore nature in a rational way and to make articulated guesses about the creation of the world and the universe. This is why Greece is often referred to as the birthplace of Western culture. Secondly, the Middle Ages were dominated by religion, which stood on the strong foundations of faith and belief. The beginning of the Middle Ages is often called the "Dark Ages" because the great civilizations of Greece and Rome had fallen. Life in Europe during the Middle Ages was very hard. Very few people could read or write and nobody expected conditions to improve. The only hope for most of the people during the Middle Ages was their strong belief in Christianity, and the hope that life in heaven would be better than life on earth. Europe began to experience great change by about 1450. Within one hundred years, Columbus had sailed to America, literacy spread, scientists made great discoveries, and artists created work that even inspires us today. Historians call the next period of European history the "Renaissance," or the "rebirth". The Renaissance is the beginning of modern history. Thirdly, the Post-Renaissance period is dominated by science, which seeks to reach at concrete facts. Modern science was born at the end of the Renaissance. Empiricism coupled with reason gradually became more acceptable to the mankind. The shift in the western mind from the medieval to the modern was underpinned by the growth of science. However a two hundred year long intellectual battle was to take place between the established Church and the emerging empiricism, before the Enlightenment could flourish. The history of human thoughts further reveals that there has been constant conflict between the devotees of religion, philosophy and science.

It goes with out saying that religion and science appear to be perfect strangers, which share neither language nor mores, values and norms. They are totally different world views and their outlook on life and of life is not only contradictory but mostly antagonistic and conflicting. There is complete divergence in their approaches. So hostility is but natural between these two different modes of thinking. The history of

relationship between religion and science is indeed the history of perpetual schism and constant mistrust. The reasons are quite obvious and self-evident. Nevertheless, to understand the nature of relationship between science and religion, we have got to understand the nature of science and religion in the light of their inherent features and characteristics.

It is generally recognized that religion, science and philosophy endure to seek knowledge but the methods employed by each are different from those used by others. So here in lies the cause of contradictions.

Science As a Method of Approach

So, first let us examine science and its method.

Science can be defined as a systematic study of the nature and the behaviour of material and physical universe based on observation, experiment and measurement. It is a method of approach to the entire empirical world ...It is furthermore an approach, which does not aim at "persuasion", at the finding of "ultimate reality" or at "conversion."¹

The essence of science is "fact" which is thought to be definite, certain without question and its meaning is to be self evident.² Fact is regarded as an empirically verifiable observation. Science begins and ends with facts; emphasizing demonstration. It is devoid of value judgment. It only tells us how to achieve goals. It can never tell us what goals should be sought.

Science assumes that through our various sense organs, aided by extension through such devices like telescope, microscope etc, we can know the world. It depends upon the agreement of sense impressions for verification of its observations. Objectivity is the hallmark of every scientific endeavor. Scientific theories, propositions and hypotheses are always put to a test to determine its validity. Science refuses to accept any statement without empirical verification due to its organized skepticism.

A scientific attitude is more than dispassionate, objective, unbiased devotion to collection of facts. Scientist avoids personal and emotional interpretation. He is not a debater taking issues with aside. A scientist has a right to his opinion, but he has no right to be wrong in his facts. Scientific attitude rests upon one and only one fundamental article of

1 William J. Good, P.K. Hatt, *Methods in Social Research* (Singapore: Mc Graw Hill Book Company, 1952), p.7.

2 *Ibid.*

faith—faith in the universality of cause and effect.³ Science seeks to understand things in a day light of reason and rationality. It is the most advanced, credible and reliable phase of human consciousness. It is extremely orthodox, puritan, and fanatic with respect to its method, laws and principles. There is no room for compromise, give and take, and expediency on the fundamental truth of science.

Science believes in open and free criticism. Without scrutiny and earnest criticism the scientist can not presume with authority.⁴ Science begins with observation and must ultimately return to observation for its final validation. The universe presents an infinite variety of phenomena to be studied, but science limits itself and attempts to investigate particular section or aspect of reality.

The unity of all sciences consists in their method and not in material alone.

The man who classifies facts, who establishes relations between facts, and derives meanings, is applying the scientific method and is a man of science. The facts may belong to any aspect of natural phenomena...it is not the fact themselves which made science, but the method by which they are dealt with.⁵

Religion as a Method of Approach

Now let us turn to Religion: Religion is defined as belief in, worship or obedience to a Supernatural power or powers considered to be Devine or to have a control over human destiny.⁶ The beliefs are peculiar in its nature as it can not be ordained and no one can argue it into existence.⁷ A belief is more than an assertion about the existence or non-existence of some being, event, or value. When one says he believes in God, he may simply mean that it is his judgment or opinion that there is a God, but he is not using the word “believe” in any way distinguishing it from opinion, or judgment. To believe in God or in any being, implies that one is prepared to act on the postulate that he is correct though he realizes that he may be wrong in his opinion or

3 A.B. Wolfe, *Conservatism, Radicalism and Scientific Methods* (New York: The Macmillan Co, 1923), p.203.

4 Pauline, V. Young, *Scientific Social Survey and Research* (Tokyo: Charls. E. Tuttle Co, 1960), p.110.

5 *Ibid.*

6 *Collins English Dictionary* (Glasgow: William Collins Sons & Co. n.d).

7 Muhammad Abdus Salam, *Renaissance of Sciences in Islamic Countries* (London: World Scientific, 1994), p.148.

judgment. If human beings had infallible knowledge, there would be no point to the word “belief”.⁸

It is perhaps the most early and primitive source of human consciousness. The essence of religion is belief and faith. Faith is a strong or unshakable belief in something especially without proof or evidence. Belief is the acceptance of something as true or real without any proof.

Faith means abandoning all trust in one’s own resources, casting oneself unreservedly on the mercy of God. Faith implies complete reliance on God and full obedience to God.⁹ It is the conviction of things not seen and the assurance of things hoped for. A believer retains a firm hold on the promises of God without any outward evidence. In other words a believer walks by faith, not by sight. So, blind acceptance of things is the essence of faith and belief. The more it is blind the more it is strong and valued.

Five religious ideas are recognized as God given and innate in the mind of man, from the beginning of time.

1. The belief in the Supreme Being.
2. The need of His worship.
3. The pursuit of pious and virtuous life as the most desirable form of worship.
4. The need of repentance of sin.
5. And reward of punishment in the next world.

These fundamental religious beliefs had been the possession of the first man and they are basic to the entire worthy positive institutionalized religions of the later time.¹⁰ These fundamental beliefs are regarded to be the cardinal principles of a religious experience as a method of approach to the Universe.

Religions view and understand the world through the spectrum of these beliefs and principles of faith and explain the mysteries of existence. Religions attempt to explain not only the material universe but also explain the non-material, spiritual and that- worldly existence.¹¹

8 Peter Anthony Bertocci, *Introduction to the Philosophy of Religion* (New York: Printice Hall, 1951), p.23.

9 *New Bible Dictionary* (England: Leicester Intervarsity Press, n.d), p.638.

10 *New Encyclopedia Britannica* Vol. 26, edition 15, p.568.

11 Albert Einstien, “Religion and Science” *New York Times Magazine*, 9 November

Revelation, intuition, dreams and other extra-sensory sources are considered to be the most reliable, credible and authentic sources of information and knowledge. The devotees of religion believe that the knowledge of ultimate Reality can only be obtained on the basis of Divine revelation and Inner experience.

Science-Religion: Relationship

After having explained the nature of science and religion with their respective methods of approach and central concerns we are now in a position to understand the history of bitter and uneasy relations between science and religion. As it has been stated earlier, it was a relationship of constant conflict and antagonism. Since the centre of conflict was Europe, therefore, the non-European history did not take a serious view of the conflict. The dominant religion of Europe i.e. Christianity had an experience of frequent encounters with the emerging world view of science.

At the emergence of modern sciences great scientists like Bruno who was an Italian philosopher, astronomer and mathematician, whose theories anticipated modern science, were censured by Church. He was the first scientist who suffered terrific death at the stake because of tenacity with which he maintained his unorthodox ideas at a time when both the Roman Catholic and Reformed Churches were reaffirming rigid Aristotelian and Scholastic principles in their struggle for the evangelization of Europe. On 8 February 1600, when the death sentence was formally read to him, he addressed his judge by saying, "perhaps your fear in passing judgment on me is greater than mine in receiving it."¹² Bruno was the first martyr of science.

The second victim was Galileo¹³ who was punished for his blasphemous utterances on June 21, 1633.¹⁴ The major problems of that

12 *New Encyclopaedia Britannica* Vol.2, edition 15, p.580.

13 Galileo Galili (1564-1642) was a great Italian scientist who helped unlock many secrets of astronomy and natural motion. He laid down the foundation of theory of falling bodies. By refuting Aristotle he antagonized his followers and they apparently pressed him to vacate the position of lecturer in the University of Pisa. But even then he rendered valuable services for the flourishing of science through different experiments. But his main concern however was the opposition of Catholic Church, to the idea that earth is not the centre of solar system. Church maintained that the centrality of earth is implicit in the Holy Scripture and to deny it would be heresy, which is punishable by death. Thereafter Galileo decided to meet the Pope Urban VIII and tried to convince him but he returned unsuccessful and was also warned not to propagate his theory in the country. Galileo was denounced as a heretic by the church in Rome for his ideas. He faced the Inquisition and was forced to renounce those beliefs publicly. Therefore, Galileo

ages were “Is the world located in an immobile place; does anything lie beyond it; does God move the *primum mobile* directly and actively as an efficient cause, or only as a final or ultimate cause? Are all the heavens moved by one mover or several? Do celestial movers experience exhaustion or fatigue? What was the nature of celestial matter? Was it like terrestrial matter in possessing inherent qualities such as being hot, cold, moist and dry?”¹⁵ When Galileo tried, first to classify those among the problems which legitimately belonged to the domain of Physics and then to find answers only to those through physical experimentation, he was persecuted. The sentence remained in effect throughout the last eight years of his life. However, restitution for that was being made almost after three hundred and fifty years later when His Holiness the Pope at a special ceremony in the Vatican on 9 May 1983 declared: “The Church’s experience, during the Galileo affair and after it, has led to a more mature attitude... The Church herself learns by experience and reflection and she now understands better the meaning that must be given to freedom of research... one of the noble attributes of man... It is through research that man attains to Truth.”¹⁶ Pope John Paul II appointed a Commission in 1984 to re-examine the events which led to the conflict of science and religion, acknowledged that Church officials had erred in condemning Galileo.¹⁷

After Galileo every big stride made by science was matchingly opposed and resisted by religion. It has been recorded that when Kepler, on whose planetary laws Newton based his theory of gravitation, wanted to account for the motion of the planets, he had to assume a “Soul” in each planet which made it revolved around the sun. Thus Science was distorted through the fear that it may displease the bigoted devotees of

realizing the gravity of the situation and that on refusal could be burnt on the stake of Burno before him by kneeling before them. It is rumoured that as Galileo got up from his kneeling position after signing the document he murmured “*epur si mouvi*” (earth does move). After the trial he was imprisoned for a short span of time and then allowed to move to his home near Florence. He was not permitted to go outside his ground but was free to receive visitors, which included Milton and Hume. His nun daughter came to live with him and took over the duty of reciting Psalm daily for three years, which was part of his punishment pronounced by the Cardinals.

14 *New Encyclopedia Britannica* Vol.19, edition 15, p.639.

15 Salam, *Renaissance of Sciences in Islamic Countries*, pp.177-78.

16 *Ibid.*

17 Ian G. Barbour, *Issues in Science and Religion* (New York: Printice Hall, 1966), p.93.

religion.¹⁸ Even Ghazali has referred to the “difficulty created by bigoted followers of religion, who thinks that in order to save religion, it is essential to deny all sciences.”¹⁹

The next significant leap forward in the world of science was made by Charles Darwin (1809- 1882) who was tooth and nail resisted by religion from the stand point of morality and is still held as unacceptable by theo-centric scientists like us and theologians of the world. Similar is the case with Karl Marx who for the first time employed scientific method in the study of sociology, economics, history and philosophy. Marxist ideology stands refuted and repudiated in the theological decrees of almost all the religions of the world.

The history of science-religion reveals that there is perpetual conflict in their relationship.

In the age of classical physics the relations between science and religion were quite tense and the movements of materialism agnosticism and atheism gathered momentum and people started testing religious beliefs and practices on scientific principles and criteria.²⁰ Science was making tremendous advances with gradual encroachment on the territories of religion. Religion seemed to be reduced to the choice of capitulation. Even those who did not reject it entirely relegated it to the background as private affairs between man and God.²¹

This tense relationship was, however, relaxed at the end of 19th century when classical physics was replaced by the physics based on the Einstein’s *Theory of Relativity and Quantum Mechanics*.²² The new stride in science heralded an epoch which restored the rightful place to religion as co-existent with science and philosophy. It provided congenial environment for science religion dialogue and interaction for *modus vivendi*. But the Post Einsteinian century is evident to the fact that

18 Anwar Dil, ed. *Science, Education and Development: Life and Works of Mr. Raziuddin Siddiqi* (Islamabad: Intercultural Forum, 2002), p.163.

19 *Ibid.*

20 *Ibid.*, p.164.

21 *Ibid.*

22 The explanation of atomic structure required the abandonment of older, commonsense, classical notions of the nature of space, time, matter, and energy in favour of the new view of the quantum theory and the theory of relativity. The first of these two central theories of modern physics was developed by many scientists during the first three decades of the 20th century; the latter theory was chiefly the product of a single individual, Albert Einstein. These theories, particularly the quantum theory, revolutionized not only physics but also chemistry and other fields.

no worth-while improvement in science religion relations has been witnessed, nor any mechanism has been evolved to ensure and facilitate communication between them.

It is perhaps due to methodological checks and contradictions that religion and science cannot reconcile their contradictions. They do not talk, negotiate and reach at compromise. In such a situation they need mediation through the auspices of a third party and that third party can ideally be philosophy. In dealing with religion and science, it is often said that philosophy is the necessary gatekeeper or even that religion and science discourse is neither religion nor science but rather philosophy. There must be three-corner relationship among religion, science and philosophy.

Philosophy is committed to analyzing both of the other two members of this partnership and to clarifying what each is “really about” in ways that will facilitate conversation between them.²³

This thinking and conclusion may be characterized thus: “Religion and Science cannot go on a date unless philosophy plays Chaperone”.²⁴ So philosophy can resolve and dissolve rigidities of science and religion and can bring about harmony and understanding in their stand-points.

23 Phil Hefner Interview in *Research News and Opportunities in Science and Theology* Vol.2, No. 2, October, 2001, p.6.

24 *Ibid.*