

Religion, Science and Mankind

DR. D. P. SINGH*

Science without religion is lame, religion without science is blind.

- Albert Einstein

* M.Sc., Ph.D., P.E.S. he is a senior faculty member at Govt. Shivalik College, Naya Nangal, Dist. Ropar, Punjab. 140126. Email: drdpsn@hotmail.com

SINCE ANCIENT TIMES, man has always been fascinated with the mysteries of Nature. He often looked in awe at the ever-changing scenario in the sky. The flashes of lightening, the thundering clouds and sudden appearance of floods or earthquakes make him tremble with fear. After a rainfall, the appearance of the rainbow in the sky, make him wonder. These phenomena tingles his curiosity to know the secrets of Nature.

In his attempts to understand the world around him, he thought of the concept of gods and goddesses. In due course of time people started believing that the various natural phenomena were the exhibits of the powers of the gods. For them the bad or good omens were associated with the anger or gladness of one or the other god.

For example, many Indians believe that rainfall occurs only due to the grace of god Indra. Similarly, the flash of lightening is thought to be associated with the death of Sri Krishna's baby sister, as mentioned in Mahabharata.

To appease these gods or goddesses the primitive man started practising various rituals and magical ceremonies. He started believing in the existence of supernatural powers, miracles, superstitions and dogmas. With passage of time, these thoughts culminated in the concept of the existence of an all-powerful Creator, which was the cause and controller of all these super natural beings.

During the last 350 years, Science has made great progress. It has helped us to find the scientific laws behind almost all the natural phenomena. Thus it has exposed the futility of wrong practices and irrational concepts of the ancient religions.

In the sixteenth century, when science initiated the age of logical reasoning, it led to a revolutionary change in the society. In the beginning science had to face a tough opposition from the religious heads for its attitude of critical and creative inquiry. It had to wage a tough battle against the evils of irrational beliefs and superstitions.

Religious heads opposed scientific progress as heretical. They declared the inventions and discoveries of science as the devil's tools, and scientists as anti-religion. Many scientists were imprisoned and some had to lay down their lives for the cause of science. The names of Galileo Galilei and Giordano Bruno need a special mention in this case. Thus science and religion had a head-on collision with each other. With the passage of time it became prevalent that science and religion were irreconcilable.

Misconceptions: During ancient times, Christians believed that the Earth was at the centre of Universe, and the Sun, Moon and the stars revolved around it. They believed that this special position has been granted to the earth because man - a special creation of God, is born on it.

With the development of Science, many scientists, especially Copernicus, Galileo, Tycho Brahe and Kepler, peeped into the depths of space. Their astronomical investigation point out that our earth is neither at the centre of the Universe nor at the center of the Milky Way (our galaxy). It is not even at the center of the solar system. They also found out that neither the Sun nor any other star is revolving around our earth. They declared that in the immensity of the stars, planets and satellites of Universe, our earth is a small-sized planet, which revolves around a medium sized star - the Sun.

These facts of science are at variance with the ideas enshrined in 'Bible' - the Holy Book of the Christians. The Pope, the Church and several religious organisations of Europe opposed these ideas tooth and nail. As a result Copernicus was unable to publish the results of his research until his death. Galileo was charged with blasphemy and was imprisoned. Ultimately, almost blind and suffering from serious illness in his old age, he had to seek pardon from the Church for his faith in the scientific truths. Only then he was released from the prison.

With the development and progress in research activities, the validity of the scientific truths were firmly established. Then the scientists found a renewed courage to assert themselves and declare their findings much more confidently. The discovery of Relativity theory and Quantum mechanics in the twentieth century caused revolutionary changes in our ideas about macrocosm and microcosm. New ideas about the cause, effect, existence, and orientation emerged in the scientific world. These ideas not only changed the established concepts but also caused a lot of changes in our perception of the ultimate reality.

Transition: In due course of time, man became aware that knowledge of science is essential for the material progress of humanity, whereas religion is essential for the evolution of the human spirit. Thus the role and significance of both of these fields has to be properly understood and appreciated.

All religions have the common object of explaining to man his real identity as different from the physical reality. Religion aims at giving to man a code of conduct and behaviour so that man does not commit such acts as cause sufferings to him and others and also make him suffer divine retribution.

It is true that religion believes in the existence of a supernatural power or a Creator, who is thought of as the Cause of all natural phenomena and mysteries of Nature. By having faith in the existence of all-powerful Creator, religion encourages its worship through prayer and rituals. Religion tries to understand and unravel the mysteries of life but in its own way. It believes in mystical experience.

Religion explains man's relationship with other beings, and with God. It gives meaning to life and existence and inspires for a noble goal, and throws light on how that goal can be achieved. For this purpose, it gives its own world-view to man and prescribes certain practices in order that he may be able to realize the Self and have link with God and could attain peace of mind.

Science has an entirely different approach to understand the nature of reality in the physical realm. All scientific explorations aim at discovering certain secrets behind the forces and phenomena of Nature and understanding the laws underlying them.

Science relies on the spirit of critical and creative inquiry. Based on analytical techniques it talks about the various forms of energy and its inter-convertibility from one form to another. Scientific approach to the problems of life depends on verifiable facts and rationality². Science attempts to make the religion free from the maladies of fundamentalism, nepotism, dogmas, irrational beliefs and superstitions.

The dawn of space age and the vigorous research activities being undertaken in the present era have challenged the validity of various concepts prevalent in different religions. For example, in Hindu mythology, the black spots visible on the Moon's surface are thought to be the effect of a curse of Rishi Gautama.

In the second half of the twentieth century, man has landed on moon using newly discovered spacecrafts. He has been able to determine the cause of these black spots as the after effects of volcanic activity, which occurred on Moon during its ancient past. In this way, science has been able to dispel the darkness of mythology.

Taking note of latest scientific discoveries, various religious heads have tried to replace the prevalent misconceptions of their religions, with the concepts and ideas, in tune with modern scientific facts. Thus science has helped religion to clean the cobwebs of earlier fanciful and irrational beliefs.

Though science has been instrumental in providing us with a large number of comforts of our daily life, yet it has also given birth to atomic bombs, nuclear weapons, missiles and poisonous gases. The mere presence of these deadly objects is a great threat to the very existence of humanity. Religion, with its concept of Fatherhood of God and Universal brotherhood of man, has the ability to produce in us a feeling of responsibility towards the right usage of scientific gains.

Awakening: The interaction between science and religion has been quite interesting. It has led to a new awakening, causing a perceptible change in their inter-relationship. With passage of time, accepting the scientific truths, religious thoughts undertook the process of replacement of the irrational beliefs with truth and rationality.

For example, in the Bible it is mentioned that the Creation took place during the span of six days. But this idea is in contradiction with the established scientific truths. Similarly, the Holy book of the Muslims mentions about the existence of seven upper and seven nether worlds. Even this idea could not hold the ground against the truth of modern scientific findings.

In contrast to these religions, Sikhism is a relatively new religion. The ideas as expressed in its Holy Granth - Sri Guru Granth Sahib (SGGS) have been found to be in tune with the modern scientific facts³. For example, in the case of the mystery of Creation, unlike other holy books, SGGS makes no pretence to unfold it. Though various notions regarding creation had been current at the time of the compilation of the Holy Granth, yet the Gurus felt that these had been fanciful and had little rational basis. They, therefore, categorically rejected the traditional Indian and Semitic beliefs as to time, size, sequence and sustenance of the Universe.

But, the poetic compositions of SGGS, which are rich in cosmological formulations, present the intuitive insights into Reality and its modes. SGGS tells us that for anyone to try to fix the date, time, season and circumstance of Creation

would be something utterly presumptuous. Guru Nanak-the first Sikh Guru, in his composition 'Japuji' says:

ਕਵਣੁ ਸੁ ਵੇਲਾ ਵਖਤੁ ਕਵਣੁ ਕਵਣੁ ਥਿਤਿ ਕਵਣੁ ਵਾਰੁ ॥
ਕਵਣਿ ਸਿ ਰੁਤੀ ਮਾਹੁ ਕਵਣੁ ਜਿਤੁ ਹੋਆ ਆਕਾਰੁ ॥
ਵੇਲ ਨ ਪਾਈਆ ਪੰਡਤੀ ਜਿ ਹੋਵੈ ਲੇਖੁ ਪੁਰਾਣੁ ॥
ਵਖਤੁ ਨ ਪਾਇਓ ਕਾਦੀਆ ਜਿ ਲਿਖਨਿ ਲੇਖੁ ਕੁਰਾਣੁ ॥
ਥਿਤਿ ਵਾਰੁ ਨਾ ਜੋਗੀ ਜਾਣੈ ਰੁਤਿ ਮਾਹੁ ਨਾ ਕੋਈ ॥
ਜਾ ਕਰਤਾ ਸਿਰਠੀ ਕਉ ਸਾਜੇ ਆਪੇ ਜਾਣੈ ਸੋਈ

i.e. What was the time and moment? Which was the week's day?
Which was the month or season, when Universe took shape?
Had pundits known this moment, Must have written in Puranas.
Had qazis known the time, Would have given in Qur'an.
No yogi knows the time, Weekday of the Creation;
Creator alone is the knower, Being Master of all beings.

This hymn of Guru Nanak is tune with the latest scientific findings, as even our modern scientists, with the latest scientific devices at their disposal, have not been successful as yet to predict the date, time, season and circumstances of the Creation.

Modern researchers have also failed to gauge the true extent of the Universe till date. Every other day we listen about new discoveries being made, making the extent of knowable Universe larger and larger. In Japuji, Guru Nanak talks about the existence of millions of worlds:

ਪਾਤਾਲਾ ਪਾਤਾਲ ਲਖ ਆਗਾਸਾ ਆਗਾਸ ॥
ਓੜਕ ਓੜਕ ਭਾਲਿ ਥਕੇ ਵੇਦ ਕਹਨਿ ਇਕ ਵਾਤ ॥
ਸਸ ਅਠਾਰਹ ਕਹਨਿ ਕਤੇਬਾ ਅਸੁਲੂ ਇਕੁ ਧਾਤੁ ॥
ਲੇਖਾ ਹੋਇ ਤ ਲਿਖੀਐ ਲੇਖੈ ਹੋਇ ਵਿਣਾਸੁ ॥

(Japuji, Stanza 22)

i.e. Netherlands beyond Netherlands, And skies above the skies,
They are in teeming millions, Vedas no limit assign.
Some speak of eighteen thousand, With root the Eternal Being;
Were they to attempt a list, would die in the attempt.

Similarly, many more hymns of SGGS can be cited, which describe the various aspects of the physical world, and are in accord with the present state of knowledge. It is pertinent to mention that the hymns of SGGS are also in tune with the recent discoveries of vastness of creation, evolution of species and in dispelling the myths concerning the earth, although these have been written about 550 years ago.

Coherence: Science has made great progress during the last 350 years. The development of science is still continuing. Despite this, the fact has emerged very strongly that for the attainment of everlasting peace and prosperity for mankind, the

coherence of science and religion is a must. Thus, their integration rather than their opposition to each other is talk of the day.

As we are aware, science and religion represent two great systems of human thought. Both of these seek objective perceptions in their attempts to comprehend existence and reality⁴. The fundamental distinction lies in the direction in which they look in pursuit of their aims. But in both cases a subtle interplay between theory and observation is involved. Both approaches are intellectual as well as empirical; in one case the confirmation of an idea is sought in external experiment, while in the other this confirmation is sought in internal experience. In both cases we get metaphors of truth: either as scientific theories and explanations or as religious symbols and scriptures.

Despite being autonomous undertakings, religion and science, are like complementary forces that operate in tandem. For the material and spiritual progress of the mankind the coherence of these two forces is an urgent need of modern times. Several religious scholars as well as many eminent scientists have time and again stressed about this need. A few quotes in this case should suffice.

Abdu'l Baha, founder of Baha'i Movement, said⁵: "Religion and Science are the two wings upon which man's intelligence can soar into the heights, with which the human soul can progress. It is not possible to fly with one wing alone. Should a man try to fly with the wings of religion alone he would quickly fall into the quagmire of superstition, whilst on the other hand, with the wing of science alone he would also make no progress, but fall into the despairing slough of materialism."

In fact, many scientists, conceded that faith is an indispensable condition for anyone who wishes to pursue science. This point has been stressed upon by many scientists as being indicative of the psychological connection between religion and science. The renowned scientist Huxley had once opined⁷: "Nothing great in science has ever been done by men, whatever their powers, in whom the Divine afflatus of the truth-seeker was wanting".

In religion and science, man has two of the greatest forces, which influence him: one is the force of his intuition and the other is that of his impulse to accurate observation and deduction. Some of the greatest scientists have succeeded in synthesizing the two forces inwardly, on a personal level. As Charles Townes, a renowned scientist and Nobel Laureate has opined⁸, "To me science and religion are both universal, and basically similar. In fact, to make the argument clear, I should like to adopt the rather extreme point of view that their differences are largely superficial, and that the two become almost indistinguishable when we look at the real nature of each".

Swami Vivekananda, the renowned savant declared⁹: "I do not mean that those who want to search after truth through external nature are wrong, nor that those who want to search after truth through internal nature are higher. These two are the two modes of procedure. Both of them must live; both of them must be studied; and in the end we shall find that they meet".

Similarly, Fred Hoyle, the famous astronomer, while delivering an address at a meeting of the American Physical Society said¹⁰, "Why in fact do we do science? ... The real motive, of course is a religious one ... our aim is the same (as that of religion): to understand the world and ourselves....".

Thus despite the subtle differences in the methods of Religion and Science, the essence of both is the same, because truth is one. Even their objective to comprehend existence and reality is the same. In the light of the above discussion it is worthwhile to conclude that the coherence of both these systems is the *sine-qua-non* for attainment of everlasting peace, prosperity and spiritual enlightenment for Mankind.

References

1. B. K. Jagdish Chandra, *Science and Spirituality*, 1988, B.K.W.S. University, Mount Abu, India p 8.
2. D. P. Singh, *Dharam ate Vigyan* (Religion and Science), 2001, Singh Brothers, Amritsar p13-16
3. Sri Guru Granth Sahib, p 4,
4. R. Ravindra, Science as a spiritual path, *The Journal of Religious Studies*, VIII/1, 1979, p78.
5. Abdu'l Baha, *Paris Talks*, 1972, Baha'i Publishing Trust, London p 143.
6. John Ferraby, *Science and The Knowledge of God*, In: All Things Made New, 1997, Baha'i Publishing Trust, New Delhi, p 131.
7. R.A. Gregory, *Truth and Testimony*. In: Discovery: The Spirit and Service of Science, 1917, Macmillan and Co., Ltd., London p 23.
8. Charles Townes, *Gathering of the Realms: The Convergence of Science and Religion*. In: Science & Spirit Magazine, 10/1, 1999, p18 Oxford, U. K.
9. A. N. Kothare, S. S. Palsule, S. M. Parekh, & M. P. Navalkar, *Anecdotes from the lives of scientists*. In: Of Science and Scientists – An Anthology of Anecdotes, 1994, National Book Trust, India, New Delhi.
10. A. N. Kothare, S. J. J. Misquita, & S. S. Palsule, *Science and Religion*, In: Science, Technology and Social Change, 1986, Wiley Eastern Ltd., New Delhi p 66-69.

