

intellect can perceive the far East and West. The ear may hear tone modulations at one thousand feet, but the mind of man can detect the harmonies of the heavenly spheres as they swing in their courses. Mind makes geological discoveries in subterranean depths and determines the processes of creation in the earth's lowest strata. The sciences and arts, all inventions, crafts, trades and their products have come forth from the intellect of man. It is evident that within the human organism the intellect occupies the supreme station. Therefore, if religious belief, principle or creed is not in accordance with the intellect and the power of reason, it is surely superstition.

(The Promulgation of Universal Peace: Talks Delivered by 'Abdu'l-Bahá during His Visit to the United States and Canada in 1912, rev. ed. (Wilmette: Bahá'í Publishing Trust, 1982, 2012), pp. 86–87)

[2]

The third principle or teaching of Bahá'u'lláh is the oneness of religion and science. Any religious belief which is not conformable with scientific proof and investigation is superstition, for true science is reason and reality, and religion is essentially reality and pure reason; therefore, the two must correspond. Religious teaching which is at variance with science and reason is human invention and imagination unworthy of acceptance, for the antithesis and opposite of knowledge is superstition born of the ignorance of man. If we say religion is opposed to science, we lack knowledge of either true science or true religion, for both are founded upon the premises and conclusions of reason, and both must bear its test.

(The Promulgation of Universal Peace, p. 148)

[3]

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Another cause of dissension and disagreement is the fact that religion has been pronounced at variance with science. Between scientists and the followers of religion there has always been controversy and strife for the reason that the latter have proclaimed religion superior in authority

to science and considered scientific announcement opposed to the teachings of religion. Bahá'u'lláh declared that religion is in complete harmony with science and reason. If religious belief and doctrine is at variance with reason, it proceeds from the limited mind of man and not from God; therefore, it is unworthy of belief and not deserving of attention; the heart finds no rest in it, and real faith is impossible. How can man believe that which he knows to be opposed to reason? Is this possible? Can the heart accept that which reason denies? Reason is the first faculty of man, and the religion of God is in harmony with it. Bahá'u'lláh has removed this form of dissension and discord from among mankind and reconciled science with religion by revealing the pure teachings of the divine reality. This accomplishment is specialized to Him in this Day. (The Promulgation of Universal Peace, p. 323)

[4]

Science is the first emanation from God toward man. All created beings embody the potentiality of material perfection, but the power of intellectual investigation and scientific acquisition is a higher virtue specialized to man alone. Other beings and organisms are deprived of this potentiality and attainment. God has created or deposited this love of reality in man. The development and progress of a nation is according to the measure and degree of that nation's scientific attainments. Through this means its greatness is continually increased, and day by day the welfare and prosperity of its people are assured.

All blessings are divine in origin, but none can be compared with this power of intellectual investigation and research, which is an eternal gift producing fruits of unending delight. Man is ever partaking of these fruits. All other blessings are temporary; this is an everlasting possession. Even sovereignty has its limitations and overthrow; this is a kingship and dominion which none may usurp or destroy. Briefly, it is an eternal blessing and divine bestowal, the supreme gift of God to man. Therefore, you should put forward your most earnest efforts toward the acquisition of science and arts. The greater your attainment, the higher your standard in the divine purpose.

The man of science is perceiving and endowed with vision, whereas he who is ignorant and neglectful of this development is blind. The investigating mind is attentive, alive; the callous and indifferent mind is deaf and dead. A scientific man is a true index and representative of humanity, for through processes of inductive reasoning and research he is informed of all that appertains to humanity, its status, conditions and happenings. He studies the human body politic, understands social problems and weaves the web and texture of civilization. In fact, science may be likened to a mirror wherein the infinite forms and images of existing things are revealed and reflected. It is the very foundation of all individual and national development. Without this basis of investigation, development is impossible. Therefore, seek with diligent endeavor the knowledge and attainment of all that lies within the power of this wonderful bestowal. (The Promulgation of Universal Peace, pp. 67–68)

[5]

In such a country [the Arabian Peninsula], and amidst such barbarous tribes, an illiterate Man produced a book in which, in a perfect and eloquent style, He explained the divine attributes and perfections, the prophethood of the Messengers of God, the divine laws, and some scientific facts.

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Thus, you know that before the observations of modern times—that is to say, during the first centuries and down to the fifteenth century of the Christian era—all the mathematicians of the world agreed that the earth was the center of the universe, and that the sun moved. The famous astronomer who was the protagonist of the new theory discovered the movement of the earth and the immobility of the sun.¹ Until his time all the astronomers and philosophers of the world followed the Ptolemaic system, and whoever said anything against it was considered ignorant. Though Pythagoras, and Plato during the latter part of his life, adopted the theory that the annual movement of the sun around the zodiac does not proceed from the sun,

but rather from the movement of the earth around the sun, this theory had been entirely forgotten, and the Ptolemaic system was accepted by all mathematicians. But there are some verses revealed in the Qur'án contrary to the theory of the Ptolemaic system. One of them is "The sun moves in a fixed place," which shows the fixity of the sun, and its movement around an axis.² Again, in another verse, "And each star moves in its own heaven."³ Thus is explained the movement of the sun, of the moon, of the earth, and of other bodies. When the Qur'án appeared, all the mathematicians ridiculed these statements and attributed the theory to ignorance. Even the doctors of Islám, when they saw that these verses were contrary to the accepted Ptolemaic system, were obliged to explain them away.

It was not until after the fifteenth century of the Christian era, nearly nine hundred years after Muhammad, that a famous astronomer made new observations and important discoveries by the aid of the telescope, which he had invented.⁴ The rotation of the earth, the fixity of the sun, and also its movement around an axis, were discovered. It became evident that the verses of the Qur'án agreed with existing facts, and that the Ptolemaic system was imaginary.

(Some Answered Questions (Wilmette: Bahá'í Publishing Trust, 1984, 2009 printing), pp. 22–24)

[6]

... the signs and conditions which have been spoken of all have meanings, and are not to be taken literally. Among other things it is said that the stars will fall upon the earth. The stars are endless and innumerable, and modern mathematicians have established and proved scientifically that the globe of the sun is estimated to be about one million and a half times greater than the earth, and each of the fixed stars to be a thousand times larger than the sun. If these stars were to fall upon the surface of the earth, how could they find place there? It would be as though a thousand million of Himalaya mountains were to fall upon a grain of mustard seed. According to reason and science this thing is quite impossible. What is even more strange is that

Christ said: "Perhaps

I shall come when you are yet asleep, for the coming of the Son of man is like the coming of a thief."5 Perhaps the thief will be in the house, and the owner will not know it.

It is clear and evident that these signs have symbolic signification, and that they are not literal. They are fully explained in the Kitáb-i-Íqán. Refer to it. (Some Answered Questions, pp. 111–112)

[7]

Copernicus.

Cf. Qur'án 36:37.

Cf. Qur'án 36:38.

Galileo.

Cf. 1 Thess. 5:2; 2 Pet. 3:10.

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From Letters Written on Behalf of Shoghi Effendi

It is very easy indeed for him to understand how you, with your training, are often tested and irritated by your contact with some of the believers. But then you must remember that your advantages of a reasonable mind and a scientific education have not been given to all, and you cannot expect acceptance of Bahá'u'lláh's teachings to endow people with these things automatically! But think of the kind of human beings, if brought up in the society He envisages, and taught in homes, schools and universities which were the mirror and product of His teachings, which would be produced! There you would really have a new race of men.

Shoghi Effendi has for years urged the Bahá'ís (who asked his advice, and in general also) to study history, economics, sociology, etc., in order to be au courant with all the progressive movements and thoughts being put forth today, and so that they could correlate these to the Bahá'í teachings. What he wants the Bahá'ís to do is to study more, not to study less. The more general knowledge, scientific and otherwise, they possess, the better. Likewise he is constantly urging them to really study the Bahá'í teachings more deeply. One might

liken Bahá'u'lláh's teachings to a sphere; there are points poles apart, and in between the thoughts and doctrines that unite them. We believe in balance in all things; we believe in moderation in all things—we must not be too emotional, nor cut and dried and lacking in feeling, we must not be so liberal as to cease to preserve the character and unity of our Bahá'í system, nor fanatical and dogmatic. Very few people, as you as a psychologist know, have attained perfect equilibrium in their minds or their lives—their acts—the same is certainly true of the Bahá'ís, for anyone who believes in our teachings can become a Bahá'í and they represent all elements of the population.

(From a letter dated 5 July 1947 to an individual believer)

[8]

Considering that a century ago nobody knew the nature of matter, and couldn't split any kind of an atom, it should not surprise the scientist that 'Abdu'l-Bahá states that copper can be transmuted into gold.

There may come a time, for all we know, when the mass of many atoms can be changed by scientists. We have no way of proving, or disproving, at present the statement of 'Abdu'l-Bahá. Just because we cannot demonstrate a contention in the Bahá'í Teachings does not mean the contention is not true.

The same holds true of the statement of Bahá'u'lláh in the *Íqán*, regarding transmutation of copper into gold after seventy years, under certain conditions.

We as Bahá'ís must assume that, as He had access to all knowledge, He was referring to a definite physical condition which theoretically might exist. Because we don't know what this condition is in scientific terms does not refute Bahá'u'lláh's statement at all.

The principle of faith is to accept anything the Manifestation of God says, once you have accepted Him as being the Manifestation. That is really the crux of the whole matter. It is a question of confidence.

(From a letter dated 14 March 1955 to an individual believer)

The Tablet to a Physician was addressed to a man who was a student of the old type of healing prevalent in the East and familiar with the terminology used in those days, and He addresses him in terms used by the medical men of those days. These terms are quite different from those used by modern medicine, and one would have to have a deep knowledge of this former school of medicine to understand the questions Bahá'u'lláh was elucidating.

(From a letter dated 18 December 1945 to an individual believer)

[10]

From Letters Written by or on Behalf of the Universal House of Justice

The Guardian was meticulous about the authenticity of historical fact. One of the friends in Yazd wrote to him stating that the account given by 'Abdu'l-Bahá in one of His Tablets about events related to the martyrdom of some of the believers in that place was in conflict with known facts about these events. Shoghi Effendi replied saying that the friends should investigate the facts carefully and unhesitatingly register them in their historical records, since 'Abdu'l-Bahá Himself had prefaced His recording of the events in His Tablet with a statement that it was based on news received from Yazd.

(From a letter dated 25 July 1974 written by the Universal House of Justice to an individual believer)

[11]

We have been asked to say that there is nothing in the Bahá'í Writings to support the conclusion that the Revelation of a Manifestation of God is confined to an exposition of "values" or that the infallibility of the Prophets does not extend to and include the area of historical and scientific "fact". On the contrary, in "Some Answered Questions", p. 23, 'Abdu'l-Bahá points out that when the Qur'án was revealed, it contained verses explaining the movement of the stars and planets in the universe. Because these statements disagreed with the established theories

of the time, the verses were ridiculed by all the mathematicians who “attributed the theory to ignorance”. ‘Abdu’l-Bahá goes on to say that it was not until 900 years later, when the telescope was invented, that the validity of Muhammad’s statements on this subject was proven.

Another clear reference to the scope of divine Revelation appears in “Some Answered Questions”, p. 218, where ‘Abdu’l-Bahá compares the “universal divine mind” of the Manifestation with the limited intellect of man. He states:

The intellectual power of the world of nature is a power of investigation, and by its researches it discovers the realities of beings and the properties of existences; but the heavenly intellectual power which is beyond nature, embraces things and is cognizant of things, knows them, understands them, is aware of mysteries, realities and divine significations, and is the discoverer of the concealed verities of the Kingdom. This divine intellectual power is the special attribute of the Holy Manifestations...

(From a letter dated 7 August 1978 written on behalf of the Universal House of Justice to an individual believer)

[12]

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With reference to your question about the “ether”, the various definitions of this word as given in the Oxford English Dictionary all refer to a physical reality, for instance, “an element”, “a substance”, “a medium”, all of which imply a physical and objective reality and, as you say, this was the concept posited by nineteenth century scientists to explain the propagation of light waves. It would have been understood in this sense by the audiences whom ‘Abdu’l-Bahá was addressing. However, in chapter XVI of “Some Answered Questions”, ‘Abdu’l-Bahá devotes a whole chapter to explaining the difference between things which are “perceptible to the senses” which He calls “objective or sensible”, and realities of the “intellect” which have “no outward form and no place”, and are “not perceptible to the senses”. He gives examples of both “kinds”

of “human knowledge”. The first kind is obvious and does not need elaboration. To illustrate the second kind the examples He gives are: love, grief, happiness, the power of the intellect, the human spirit and “ethereal matter”. (In the original Persian the word “ethereal” is the same as “etheric”.) He states clearly that “Even ethereal matter, the forces of which are said in physics to be heat, light, electricity and magnetism, is an intellectual reality, and is not sensible.” In other words, the “ether” is a concept arrived at intellectually to explain certain phenomena. In due course, when scientists failed to confirm the physical existence of the “ether” by delicate experiments, they constructed other intellectual concepts to explain the same phenomena.

In considering the whole field of divinely conferred “infallibility” one must be careful to avoid the literal understanding and petty-mindedness that has so often characterised discussions of this matter in the Christian world. The Manifestation of God (and, to a lesser degree, ‘Abdu’l-Bahá and Shoghi Effendi) has to convey tremendous concepts covering the whole field of human life and activity to people whose present knowledge and degree of understanding are far below His. He must use the limited medium of human language against the limited and often erroneous background of His audience’s traditional knowledge and current understanding to raise them to a wholly new level of awareness and behaviour. It is a human tendency, against which the Manifestation warns us, to measure His statements against the inaccurate standard of the acquired knowledge of mankind. We tend to take them and place them within one or other of the existing categories of human philosophy or science while, in reality, they transcend these and will, if properly understood, open new and vast horizons to our understanding.

Some sayings of the Manifestation are clear and obvious. Among these are laws of behaviour. Others are elucidations which lead men from their present level of understanding to a new one. Others are pregnant allusions, the significance of which only becomes apparent as

the knowledge and understanding of the reader grow. And all are integral parts of one great Revelation intended to raise mankind to a new level of its evolution.

It may well be that we shall find some statement is couched in terms familiar to the audience to which it was first addressed, but is strange now to us. For example, in answer to a question about Bahá'u'lláh's reference to the "fourth heaven" in the "Kitáb-i-Íqán", the Guardian's secretary wrote on his behalf:

As to the ascent of Christ to the fourth heaven, as revealed in the glorious "Book of Íqán", he [the Guardian] stated that the "fourth heaven" is a term used and a belief held by the early astronomers. The followers of the Shí'ih sect likewise held this belief. As the "Kitáb-i-Íqán" was revealed for the guidance of that sect, this term was used in conformity with the concepts of its followers.

(Translated from the Arabic)

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In studying such statements, however, we must have the humility to appreciate the limitations of our own knowledge and outlook, and strive always to understand the purpose of Bahá'u'lláh in making them, trying to look upon Him with His own eyes, as it were. (From a letter dated 3 June 1982 written on behalf of the Universal House of Justice to two individual believers)

[13]

With regard to the harmony of science and religion, the Writings of the Central Figures and the commentaries of the Guardian make abundantly clear that the task of humanity, including the Bahá'í community that serves as the "leaven" within it, is to create a global civilization which embodies both the spiritual and material dimensions of existence. The nature and scope of such a civilization are still beyond anything the present generation can conceive. The prosecution of this vast enterprise will depend on a progressive interaction between the truths and principles of religion and the discoveries and insights of scientific inquiry. This entails living with ambiguities as a natural and inescapable feature of the process of exploring reality. It

also requires us not to limit science to any particular school of thought or methodological approach postulated in the course of its development. The challenge facing Bahá'í thinkers is to provide responsible leadership in this endeavour, since it is they who have both the priceless insights of the Revelation and the advantages conferred by scientific investigation. (From a letter dated 19 May 1995 written on behalf of the Universal House of Justice to an individual believer)

[14]

... the principle of harmony between religion and science, while it enables us, with the help of reason, to see through the falsity of superstitions, does not imply that truth is limited to what can be explained by current scientific concepts. Not only do all religions have their miracles and mysteries, but religion itself, and certain fundamental religious concepts, such as the nature of the Manifestations of God, are far from being explicable by present-day scientific theories. (From a letter dated 16 February 1996 written on behalf of the Universal House of Justice to an individual believer)

[15]

In academia, at the present time, the common ground of understanding in relation to all aspects of human behaviour is generally materialistic, and rules out of consideration many factors such as the reality and fundamental importance of divine revelation in the life and development of humankind. Within the Bahá'í community, by definition, the common ground of understanding is the teachings of Bahá'u'lláh, and it is within this context that Bahá'ís pursue scholarship and freedom of discussion. How, therefore, is a Bahá'í academic to relate the two variant common grounds of understanding: the materialistic one which constrains his professional activity and the Bahá'í one which is the basis of his whole life?

The path followed by some members of other religions, is to divide their thinking into two watertight compartments: their religion and their science. A Bahá'í, however, firmly believes in the harmony between religion and science, and should resist all temptation to dichotomize his

thinking. There are some areas of study, such as chemistry or mathematics, in which the problem scarcely arises. But in anything to do with human life, behaviour and history, it must affect that whole area of analysis, interpretation and explanation referred to above.

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A Bahá'í academic should, of course, pursue fearlessly the truth of any matter before him, but in the elucidation of the facts that he discovers, how can he propound explanations which are in flat contradiction to the fundamental teachings of Bahá'u'lláh? Either he is hypocritically presenting an explanation which he knows to be untrue, merely for the sake of following a particular academic authority, or, if he believes the academic explanation in contradiction to the Bahá'í teachings, he should logically conclude that the teachings of Bahá'u'lláh are in error; in which case he should courageously face up to the implications of such a conclusion, and think it through.

This dilemma lies before every Bahá'í academic, irrespective of the existence of Bahá'í review. It is the impression of the Universal House of Justice that most Bahá'í academics have been able to solve the problem with little difficulty, by a profound acceptance of the principle of the harmony of science and religion, and by the use of wisdom and understanding in the couching of their conclusions.

(From a letter dated 24 March 1997 written on behalf of the Universal House of Justice to an individual believer)

[16]

Scholarly training and professional experience will have sensitized you to the implications for the study of religion of certain assumptions about human nature and the processes of civilization that a purely materialistic interpretation of reality has imposed on scholarly activity of every kind, at least in the Western world. A related paradigm for the study of religion has gradually consolidated itself in the prevailing academic culture during the course of the present century. It insists that all

spiritual and moral phenomena must be understood through the application of a scholarly apparatus devised to explore existence in a way that ignores the issues of God's continuous relationship with His creation and His intervention in human life and history. Yet, from a Bahá'í point of view, it is precisely this intervention that is the central theme of the Teachings of the Founders of the revealed religions ostensibly being studied.

As a result of this insistence, opinions that should have remained matters of learned speculation have tended to assume the character of dogma. Equally regrettable is an intolerant attitude toward other perceptions of reality, which too often characterizes the expression of these opinions. In the context of historical circumstance, this development is understandable. The rigid intolerance exhibited in the past by much of organized religion, together with the domination of scholarship long exercised by theological elites, could not but arouse strong negative reactions.

From a Bahá'í point of view, however, bigotry is retrograde and unacceptable in whatever form it chooses to present itself.

(From a message dated 20 July 1997 written on behalf of the Universal House of Justice to an individual believer)

[17]