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The Qur'an-Science Relations throughout History and a Linguistic Analysis of the Qur'an-Science Relationship in the Context of Scientific Discoveries

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Abstract

The Tension between religion, particularly Christianity and science was one of the most debated issues in the past. One of the main reasons for that tension was undoubtedly that the Christian holy books contain doctrines contradicting the data of positive/pure sciences. The first striking works on the tension between religion/Christianity and science were written in nineteenth century by John Draper (*A History of the Conflict between Religion and Science* 1870) and by A.D. White *(History of the Warfare. AD with the name Science with Theology in Christendom* 1896). Whereas in Islamic history, no such science-religion tension has been observed. Because the Qur'an has never taken a negative attitude against knowledge and scientific thought. Contrarily, in many verses it has persistently encouraged and praised science and scientists. It is also observed that the Qur'an, in different terms, points to certain scientific realities unknown by the time of its revelation. Two of the most striking examples of the Qur'an's many linguistic uses that go beyond the ages are the expressions; "levâkıh", which indicates the role of the winds as "fertilizer" and "alak/alaka", which refers to the stage of attachment of the fetus to the uterine wall. The paper will briefly examine and evaluate the Qur'an-Science relationship throughout history, as well as the miraculous linguistic selectivity of the Qur'an through some examples that transcends its age.
Keywords: Adem Yerinde, Quran, Levakıh, Alaka, Scientific Discoveries

Introduction

The tension of between the religion and the science was one of the most debated issues in the past. However, the religion, which was the part of these debates, was essentially Christianity. Many of the Western scholars who have discussed the issue have often stated that when they sad "religion" they specifically referred to Christianity.[1] One of the main reasons for the tension between Christianity and science is undoubtedly that the Christian holy books contain doctrines that contradict the data of positive sciences on cosmological events.[2]

John Draper (1811-1882) wrote his first work on the tension of science and religion in 1870 under the name *A History of the Conflict between Religion and Science*. In the work, especially during the middle ages, the negative attitude of the Catholic Church towards science was critically criticized, while some other religious institutions and the Greek Orthodox Church and Protestant sects, which had a generally positive attitude towards science, were appreci-

[1] Mehmet Aydin, *Din Felsefesi*, Ankara 1996 (5th edition), p. 264. See, for example. H. Brown, *the Wisdom of Science; Its Relevance to Culture and Religion*, Cambridge 1986.

[2] Isaac Newton (1642-1727), as a result of his research on Christianity, found that the Trinity entered into Christianity in the fourth century. He collected his findings on the Bible in his remarkable work titled *An Historical Account of Two Notable Corruptions of Scripture* (London 1841). See also; İrfan Yılmaz et. al., *Yeni Bir Bakış Açısıyla İlim ve Din*, İstanbul 1998, I, 252.

ated. After Draper, the most influential work in this field was written by historian Andrew Dickson White. (1896). White uses a more scientific style and considers the past as the conflict arena of the science and religion.

Medieval Catholicism had listed *De Revolutiononus Orbium Coeslestium* (1543) written by Copernicus (1473-1543) in the list of prohibited books until the eighth century, because the book proved that the Earth revolves around both its axis and the Sun (1543). The Italian scientist Galileo (1564-1642), who supported Copernicus, also was tried in the Inquisition Court for his views incompatible with the dogmas of the church. These events were examples that symbolized the tension of science and religion in the middle ages.[3]

In Islamic history, this kind of tension between science and religion has not been observed. In the Islamic world, even rational materialist philosophers such as Ibn al-Ravendi (d. 301 / 913-14 [?]) and Abu Bakr al-Razi (d. 313/925) cannot be said to have been subject to severe punishments, torture and constant prosecution. In particular, Abu Bakr al-Razi has always been respected as the greatest physician of his time in spite of his views contrary to the basic principles of religion.[4]

Therefore, it cannot be said that the religion-science tension observed in the Christendom is also experienced in the Islamic world. Firstly, the positive attitude of Islam's holy book, the Qur'an, towards science and scientific thought was main factor in this result. For the Qur'an in its first verse revealed; "*Read in the name of your Lord who created*"[5] encouraging the believers to read as the most important way to learn and research. In addition, in many verses, it mentioned pen, ink and writing as basic means of knowledge and pointed out the value of knowledge as a power by stating that those who have knowledge and those who are deprived of knowledge can never be one. Muhammad (Pease be upon him) also opened a wide space for Muslims in scientific research by saying: "*Wisdom is the loss of the Muslim. Wherever he finds it, he is more worthy of owning it than anyone else*." Muslim scholars who took their basic dynamism from these recommendations have never been sceptical against science and scientific efforts. On the contrary, they received everything they found in ancient civilizations in the name of knowledge and wisdom from a period, which could be considered quite early, and brought it to a new forum and content by blending it with their own religious and cultural values. They have transferred the scientific and intellectual heritage of all the old great civilizations such as Iran, Byzantine, Greek, Egypt and Indian to the Islamic world in a very short time.

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3 For further examples see; Adnan Adıvar, *Bilim ve Din*, İstanbul 1980; İrfan Yılmaz et. al., Op. cit., I, 252 et al.

4 Adıvar, op. cit., p. 97.

5 al-Alaq, 96/1.

In the paper; the relationship between the Qur'an, the holy book of Islam and science and scientific thought, and its historical projections will be discussed and evaluated rather than the religious-science relations witnessed in the Christendom.

Unity of Purpose between the Qur'an and Science

It could not be said there is a real tension or contradiction between science and the Qur'an. For the Qur'an always encourages knowledge as a value to be obtained as well as studies existence as a whole. Therefore it demands people to look at what is happening both in their own being and in their natural and social environment to contemplate on them, to observe and understand their nature as well as to learn lessons and take notices from them and to organize accordingly their lives making it meaningful on the way to Almighty Allah. Almighty Allah says: *"We shall show them Our signs in the universe and within themselves, until it becomes clear to them that this is the Truth. Is it not enough that your Lord is the witness of all things?"*[6] It is clear that the ultimate aim of the Qur'an is faith and worship of Almighty Allah.[7]

In the Qur'an there are hundreds of verses advising man to observe the beings and phenomena around him, such as "*Do not they look at the camels, how they were created, and at the sky, how it was raised, and at the mountains, how they were erected, and at the earth, how it was spread out?*"[8] *"He has created seven heavens in harmony. You will see no flaw in the creation of Allah, the Most Merciful."*[9] As well, many revelations, such as *"We have created all things by a standard proportion."*[10] declare that there is a system that operates according to certain laws in the universe. Again, we understand from the verse "*He is in creation at every moment*"[11] that Almighty Allah controls the functioning of this order in the universe and guarantees its functioning perfectly until the Doomsday.

In the natural sciences, this order is felt more clearly than the social sciences. Therefore, scholars working in the natural sciences are more likely to believe in the existence of a Supreme Power that governs it. Actually, according to two studies conducted by the famous psychologist James H. Leuba (1868-1946) in 1914 and 1933, the physicists take the first place among the scientists in believing.[12] Since when a scientist looks at the universe, he sees an order there. This understandable characteristic of the world is essential for scientific

6 Fussilat 41/53.
7 ad-Dhaariyaat 51/56.
8 al-Gaashiyah 88/17-20.
9 al-Mulk 67/3.
10 al-Qamar 54/49.
11 er-Rahman 55/29.
12 Aydin, op. cit., p.271

studies. According to Isaac Newton (1643-1727) and Albert Einstein (1879-1955), the intelligibility of the universe has a "miraculous character." The greatest miracle is such a high order being seen in the world. In a letter to his former friend Maurice Solovin (1875-1958) in 1952, Einstein stated that scientific theories were founded primarily on the a priori order in the universe. According to Newton, Allah always intervenes in the universe and ensures the order there.[13] Einstein's explanation of natural laws with the concept of "miracle" is consistent with the Quranic wisdom. Indeed, in the Qur'an, the order in the universe and its steady functioning are described as âyât/sings that lead man to Allah.

Hundreds of verses in the Qur'an are talking about activities like hearing, thinking, perception, comprehension and believing clearly confirming the fact that knowledge is possible for human beings. However, the problematic of knowledge has been discussed in the disciplines of Islamic philosophy and theology. Islamic scholars who advocate the possibility of knowledge for human beings have strongly criticized the sceptical approaches of philosophical schools such as Sophists, who doubt or refuse the possibility of objective knowledge. When Muslim scholars say: *"The realities of things are constant and observable"*, they want to point out that the beings have an objective and discoverable reality, so objective knowledge is essentially possible for man.[14] In this context, especially the scholars of theology (Kalam) studied the means of knowledge under the title of "the ways of acquiring knowledge (esbâbü'l-ilm)" and these were faithful/right narratives, healthy intellect/mind and healthy functioning senses. The information obtained through the senses is a compulsory knowledge based on experimentation and observation. The knowledge acquired by reason is either obligatory or theoretical.[15]

In the Qur'an, it is often pointed to the experience and its means: *"Look at the things that are in heaven and on earth"*,[16] *"Wander around the earth; see how Allah created things for the first time."*[17] *"Don't they look at the camel, how it was created"*[18] There are hundreds of other verses in the Qur'an encouraging such thinking, researches, contemplation and reasoning. For example, the number of verses that include reason and urge reasoning is 65, while the number of verses that condemn ignorance and illiteracy is around 25. About 350 verses order humankind to look at the issues that one can think on and comprehend

13 Aydin, op. cit., p.272

14 See, Necip Taylan, "Bilgi" *DİA* (Türkiye Diyanet Vakfı İslam Ansiklopedisi), İstanbul 1992, vol. VI, p. 158-159.

15 For more information, see Nureddin es-Sabuni, *al-Bidaye fi fi usuli'd-diyane*, ed. Bekir Topaloglu, Ankara 1979, p. 16; Taylan, op. cit., VI, 159.

16 Yoonus 10/10.

17 al-Ankaboot 29/20.

18 al-Ghashiyah 88/17.

by himself. About 50 verses encourage studying the earth. The total number of verses that point to positive sciences and discoveries is around 750.[19] In these verses, the Qur'an generally gives basic principles. However, it is seen sometimes that it enters into detail in some subjects such as the creation stages of embryo. Nevertheless, as a general thought, the Qur'an is not a book of details, but a book of principles and rules. He essentially charges the people with researching and studying for the details of phenomenon and cases. For this reason, it adopts objective methods of knowledge such as reasoning, experience and observation, in the other side; it condemns human misconceptions and wrong attitudes incompatible with scientific understanding such as fanaticism, suspicion and imitation.[20]

Hence, the Qur'an has never taken a negative stand against knowledge and scientific thought, but in many verses, it has consistently encouraged and praised those who have knowledge. Thanks to the great value attributed to science and scientists by the Qur'an, science centres such as Istanbul, Baghdad, Damascus, Cordoba, Bukhara and Samarkand were established in a period in which Europe was in dark ages.

In Islam, it is not possible to make a clear distinction between religious and rational sciences. All the sciences suggest by their own concepts confession and unifying of God. The Islamic education model based on unity of God has spread out from Asia to Africa and Andalusia. Thus, apart from being a transition between Hellenism and the modern world, it established a civilization and culture on its own dynamics and formed the third and richest ring of civilization. Philip Khuri Hitti (1886-1078) said: *"Science is the greatest gift of Islamic civilization to the modern World"* as well as R.V.C. Bodley (1892-1970) expressed the same fact by saying: *"We owe the Renaissance to Islam"*. One of the contemporary thinkers, W. Montgomery Watt (1909-2006), had to admit that as a result of recent developments, the denigrating of Islam by the medieval Christian writers was totally slanderous and the influence of Islam on Western scientific thought was either deliberately underestimated or ignored.[21] For this reason, as Franz Rosenthal (1914-2003) has rightly stated, in no belief system has there been any compatibility between religion and science as in Islam.[22]

The Qur'an in hundreds of verses has stimulated the scientific curiosity of man and invited him to contemplate on natural events and understand their functioning as signs of the existence of the Supreme Creator. In this context, he has pointed out many issues studied within the field of positive sciences

[19] See, Celal Kırca, *Kur'ân ve Bilim*, İstanbul 1996, p.34

[20] See, al-An'aam 6/148; an-Najm 53/28.

[21] See. Yilmaz, et. al. op. cit., II, 633, 636.

[22] Yilmaz, et. al. op. cit., II, 641.

such as Astronomy, Physics and Biology. Thus, in the interpretation and explanation of these verses of the Qur'an has emerged scientific exegesis movement in Islamic commentary tradition, which advocates the maximum benefiting from the generally accepted scientific data and tries to find out the basic concepts and principles of all kinds of science from the Qur'an.[23]

In Islamic tradition, which paid great importance to rational and experiential knowledge, there has been no inconsistency between the Qur'anic verses and certain scientific theories. So Muslim scientists had no difficulty to reconcile cosmological verses in the Quran and scientific data. Furthermore, the meaning of some verses was precisely explained with modern scientific discoveries. According to Ibn Rushd, the famous Muslim philosopher who argues that there can never be any tension between Islam and science; the verse "*O People of foresight, learn from this a lesson*",[24] asks the man to use the analogy as a scientific method and advise him to reach from the known to the unknown.[25]

Scientific Interpretation of the Natural Verses in the Qur'an; Historical Background

Thousands of verses in the Qur'an, which are in interest of positive sciences, have led Muslim scientists to deal with these sciences and interpret these verses with scientific theories. The Qur'an-science relations first began to be witnessed and developed within Islamic philosophy. Later, Abu Hamid Muhammad al-Gazzali (d. 505/1111), who became prominent as a philosopher with mystic tendencies, wrote works on Qur'an-science relations. He examined the relationship between the Qur'an and science in his works *İhyau ulumi'd-din, al-Munkizu mine'd-dalal, Tehafutu'l-felasife* and *Cevahiru'l-Qur'an* uttering important comments on some Qur'anic verses in terms of his time. He made explanations close to today's disclosures about some astronomical events such as the roundness of the Earth and the lunar and solar eclipses.[26] Fahruddin al-Razi (d. 606/1210), who came a century after Gazzali, most widely used the scientific theories of his time in his exegesis *Mefatihu'l-gayb*. He tried to explain the verses of the Qur'an by Aristotle philosophy and Ptolemy's earth-centred theory of universe. Although the Qur'an does not clearly signify the roundness of the moon, he was able to involve and discuss theories

[23] For more information on this, see. Celal Kırca, *Kur'ân ve Bilim*, Istanbul 1996; id., *Kur'ân-ı Kerim'de Fen Bilimleri*, İstanbul 1989; J. J. G. Jansen, *The Interpretation of the Koran in Modern Egypt*, Leiden: E.J. Brill 1980; J. M. S. Baljon, *Modern Muslim Koran interpretation (1880–1960), leiden: E.J. Brill, 1961.*

[24] Al-Hashr 59/2

[25] İbn Rüşd, *Faslu'l-makal*, İstanbul 1986, p. 97-98.

[26] See. al-Imam al-Gazzali, *Tehafutu'l-Felasife*, ed. Suleyman Dunya, Cairo: Dar al-Maarif 1385/1966, p. 80.

of the roundness of the world as well as the constancy of the earth and tried to explain the Qur'an's concept of *"seven heavens"* with the cosmology theory of Greek philosophy. Ibn Rushd (d. 595/1199), one of the Andalusian representatives of the Islamic philosophy, also advocated the Islam-science reconciliation in his works *Fasl'l-makaal* and *al-Keşf an minhaci'l-edille.*

The most fierily defenders of that the Qur'an includes somehow all the religious and positive sciences are the Islamic scholars Abu al-Fadl al-Mursi (d. 655/1257) and Celaluddin es-Suyuti. (d. 911/1505). Especially, Suyuti extensively studied the subject in his book *al-Itkan fi ulumi'l-Qur'an*, which he wrote about Qur'anic sciences in general as well as he wrote an independent work on the subject under the name of *al-Iklil fi istinbati't-Tenzil.*

Muslim scholars paid so much attention to all kind of scientific knowledge that they considered learning of positive sciences as social imperative and obligation (farz-ı kifaye) at least. Furthermore, Katip Celebi (d. 1067/1657 strongly advocates the teaching of philosophical sciences considering it as the science that investigates nature and reality of existence. So he said in his work titled *Mizanu'l-Hak fi'htiyari'l-ehak*, that the fatwa uttered by the mufti who knew mathematics and the fatwa uttered by the mufti who did not know could not be the same and the fatwa of the mufti who knew mathematics would be more accurate.[27]

In the 19th and 20th centuries, where science was exalted as a value, some Western scholars made comparisons between Islam and science too and ignoring Islamic history, attempted to argue that there were contradictions between Islam and science. Ernest Renan (1823-1892) argued the most influential of such claims at a conference that he gave in 1883 at the University of Sorbonne under the title of "Islam and Science". However, Cemaleddin Efgani (1838-1897), one of the Muslim reformists of the 20th century, refuted Renan's claims with strong and effective answers. Similar claims such as Islam was an obstacle to scientific and technological progress, were also answered and refuted exactly by the Islamist scholars and poets such as Muhammad Abduh (1849-1905), a student of Efgani, Rashid Reza (1865-1935), Ziya Pasha (1829-1880), Namik Kemal (1840-1888), Mehmet Akif (1873-1936) and Muhammad Iqbal (1877-1938). Nâmık Kemal's "The Defence of Islam against Renan (Renan Müdâfaanâmesi) [28] is famous.

The desire of Western scholars to put forward the allegations of the religious-science conflict that they expressed for Christianity also urged Islamic scholars to make further efforts as to reconcile the Qur'anic verses with the modern scientific findings and data. Gazi Ahmed Muhtar Pasha (1839-1919)

[27] Katip Çelebi, *Mizanu'l-Hak*, İstanbul 1972, s. 10.

[28] See. Omer Faruk Akun, "Nâmık Kemal", *DİA,* İstanbul 2006, XXXII, 375.

wrote the book *Serâirü'l-Kur'ân* and discussed the relationship between Qur'an and Astronomy. Tantavi b. Cevherî (1862-1940) tried to interpret in his 26-volume encyclopaedic exegete *al-Cevahir fi tefsiri'l-Kur'âni'l-Kerim* within the framework of scientific findings, all the verses of the Qur'an containing smallest sings to the subjects as natural events, plants, animals and so on, which fall with the natural and positive sciences. Almost none of the 20th century Muslim commentators hesitated to use the scientific findings and knowledge in their exegesis. Muhammad Hamdi Yazir (1878-1942), who was considered the greatest Turkish commentator of the recent century, also included scientific theories and knowledge in his voluminous commentary entitled *Hak Dini Kuran Dili*.

In spite of all these scientific commentary studies, many Islamic scholars, especially Al-Faqih Abu Ishaq al-Shatibi (d. 790/1388), have abstained or warned against the scientific exegesis, on the grounds that the The Quran is a book of guidance and its language is a literary language as well as the Arabs of Cahiliye/Ignorance, the first interlocutors of Quran, were so far from philosophy and scientific thought. The fundamental argument of this attitude is that the language of religion and the language of science are different. As well as the one of most important arguments is the variability of the scientific language and scientific data. Although these are righteous warnings, it is also important to use the language of science considering the facts that the Qur'an carries a universal message and the literary language is generally suitable for more than one interpretation. The Qur'an, no doubts, has a word to say to the people of modern world. Otherwise, the universal message of the Qur'an cannot be delivered to the people of the time. Moreover, with the scientific level reached today, we understand that the Qur'an has used a language about some natural phenomena and scientific facts that goes beyond the ages. This language coincides with today's scientific discoveries with nearly 100 percent. In the next section, I would like to present two extremely striking examples of this kind to the discretion of scholars.

The main purpose of the Qur'an is to guide all humanity in general and believers in particular about the existence and unity of God. The language he uses while fulfilling this guiding role is the language of religion; an impressive and normative rhetorical language that appeals to the hearts and minds of people. It chose the impressive literary language to convey its main messages to people. Reaching to this end, it used all the possibilities of the literary language considering the level of knowledge and culture of the period. So that it pointed out natural events, underlined customs and traditions of the society, referred to social insights, employed historical information, talked about the extraordinary things/miracles, which a limited number of people had witnessed, and examined the individual and social reactions of the human beings.

He used the possibilities of social psychology, established moral and legal norms…. In all these realms, the Qur'an did not use a different language and style, but on the contrary, it used the "language of religion" which revolves around the same "universal message" axis with a single metaphysical reality. It is the unity of Allah.

The language of science, on the other hand, is a mathematical language closed to figurative uses and interpretation. Science aims to express the results, which are always achieved through feasible methods, in an understandable forum within the boundaries of the language. However, the knowledge he produces is not absolute knowledge valid at all times and places, as philosophers of science states.

While considering the verses of the Qur'an in any field of science, its linguistic characteristics must be taken into consideration. The Qur'an is above all not a science book in the terms of being a book of information obtained through physical observation and experiments. Maybe it is a book of consciousness. For this, it uses all kinds of data to raise awareness of the individual and the society within the limitations of the human language.

There is one more thing to keep in mind when making comparison between the science and Quran. It is that the Quran is the word of Allah, who has absolute knowledge. So it can not contain error, inconsistency, lies, deceit or misleading. Unlike human speech, even a single example of this kind is enough to undermine its truthiness and divinity feature. Therefore, while making comparison of the Quran with science, the linguistic features of the Quran should be considered. In fact, the Qur'an's reconcilable character with scientific results in every century and place is the most important guarantee of its divinity.

On the other hand, the scientific data will of course be used today in the Qur'anic interpretation as it was yesterday. However, it is a religious and scientific necessity to avoid one-to-one comparisons and absolute comments due to the difference in nature between the two information. Because the sensitive line between the language of the Qur'an and the language of science, the human mind is always possible to mistake. Instead, it would be more appropriate attitude to focus on the "universal message" of the Qur'an.

In this context, Fahrettin er-Razi (d. 606/1210) reported from Abu Hamid al-Ghazali (d. 505/1111) an important principle: "Experimental information cannot be challenged. Revelation and Prophet Narratives should be interpreted according to experimental information."[29] Another principle that should be taken into consideration in the interpretation of the verses related to the

[29] Bkz. Razi, Ebû Abdillah Fahrüddin Muhammed b. Ömer er-Râzî, *Mefatihu'l-gayb*, 3. Bsk. Beyrut: Dârü ihyai't-turasi'l-Arabi, 1420, XXIX, 119.

physical realm is what er-Razi himself explained as follows: "The aim of the Qur'anic arguments about the outside world is not to make polemics, but to put and consolidate the right beliefs in the hearts."[30]

Scientific-Linguistic Characteristics of the Qur'an beyond the Ages

It is seen that the Qur'an points out by different contexts in a very special language to some scientific facts, which have only been discovered and known in detail today. It is known that not only the Arabs of Jahiliyya but also the philosophical and scientific background of that time is much far beyond the discovery of these realities. These natural realities could only be discovered by modern scientific studies. We want to point to two most striking examples of these linguistic uses of the Qur'an that go beyond the ages.

1. Levakih

al-Hijr 22 is one of the verses of the Qur'an that, we believe, was used through a selective language implying scientific truths gone beyond the age of the Revelation. In the verse, the winds had been described as "levakih", which means literally "pollinator/fertilizer":

﴿وَاَرْسَلْنَا الرِّيَاحَ لَوَاقِحَ فَاَنْزَلْنَا مِنَ السَّمَآءِ مَآءً فَاَسْقَيْنَاكُمُوهُ وَمَآ اَنْتُمْ لَهُ بِخَازِنِينَ﴾

"We sent the winds as pollinators. So we took down water from the sky and met your water needs. Whereas you couldn't store it."

It is clear that the verse have emphasizing on the role of the winds for combining of clouds and generating of rains. Until the early 20th century, the only known relationship between wind and rain was that the winds drift clouds. However, scientists discovered via modern scientific researches that winds play also a fertilizing role. Winds play these roles both in the formation of rains and inoculation of plants. Let us first look at how the subject was interpreted in the classical Islamic commentaries.

The first narrative commentaries interpreting the word; "levâkih", focus on winds' role of fertilizing clouds as well as point out their functions of fertilizing plants. However, they do not give details on how these two types of fertilizing occur. They often emphasize the carrying capacity of winds. In this context, they contain explanations and knowledge that can be obtained largely by external observation, such as winds creating and moving rain-laden clouds and leaving them on plants. Accordingly, the winds drag the water bubbles in the air and carry them to the clouds, and the clouds concentrated by the water bubbles are dragged by the winds to the different regions of the

[30] Bkz. Razi, III, 319.

earth. These rain-laden clouds then leave their water on the plants, where the plants come to life and bear fruit.[31]

These function of fertilizing both clouds and plants of the winds are explained in more detail and complicity by the modern science in the light of scientific findings that couldn't be said to be known neither in the era of revelation of the Qur'an or in the later classical Islamic periods. According to modern science, the fertilizing function of winds takes place as follows: Numerous air bubbles occur on the surface of oceans and seas due to foaming. As soon as these bubbles explode, they throw thousands of particles in size of one hundred of a millimetre into the air. These particles, called *"aerosols"*, are carried to the upper layers of the atmosphere mixing with the dust coming from the land thanks to the winds. The particles carried by the winds in this way come into contact with the water vapour. Then the condensed water vapours which were collected around these particles turn into water droplets. These water droplets first come together to form clouds, and after a while, they come down to the earth as rain. So, as it is clear, the winds fertilize the water vapour that is released in the air with the particles they carry from the seas and facilitate the formation of rain clouds.[32]

Another aspect of the fertilizing aspect of winds is their role of fertilizing of plants. Many plants in the world maintain their species by distributing their pollen via the winds. Many open-seed plants, pine trees, palm trees and similar trees, as well as all seeded plants and all grassy grasses are fertilized by the winds. The wind performs fertilization by taking the flower powders from the plants and transporting them to other plants of the same species. This function of winds was not known until recently. However, it was understood that winds have such a fertilizing effect from the fact that the plants have also male and female types.[33] This fact declared in the Qur'an as follows; *"We send down rain from the sky, so we produced on the earth every kind of noble creature in pairs."*[34]

It is noteworthy that this sensitive function of winds in the formation of rain and inoculation of plants has been reported in the Qur'an with a carefully chosen word (levakih), centuries ago, in a period in which this detailed information obtained by combining many observations and findings is almost non-

[31] For details see Abu Jafar Muhammad b. Cerir et-Teberi, *Camiu'l-beyaan fi ta'vili âti'l-Qur'an*, ed. Ahmed Muhammed Şakir, Muesseset ar-Risale, 1420/2000, XVII, 86 et al. ; Razi, *Mefatihu'l-Gayb*, XIX, 133-134; Abu Abdullah Muhammad b. Ahmed al-Kurtubi, *al-Cami li Ahkamu'l-Qur'an*, ed. Hisham Semir al-Bukhari, Riyadh: Daru Alemi'll-Kutub 1423/2003, X, 15-16; Abdurrahman b. Kemal Celaluddin es-Suyuti, *ed-Dürrü'l-mensûr fi't-tefsir bi'l-me'sur*, Beirut 1993, V, 73-74.

[32] https://kuranmucizelericilt1.wordpress.com/tag/asilayici-ruzgarlar/ (Access Date 21.05.2019)

[33] https://kuranmucizelericilt1.wordpress.com/tag/asilayici-ruzgarlar/ (Access Date 21.05.2019)

[34] al-Luqmaan, 31/10

existent. In this way, according to the level of science and culture, the message of the Qur'an was intended to be given both to the people of the time and to future generations.

2. Alak

The Second word that we believe to be carefully selected in the Qur'an is the word of "*alak*". In one verse of the Qur'an, it is pointed out that human beings are created directly from *"alak"*[35], and in four verses, the *"alak"* stage is pointed out after the *"nutfe*" stage as one of the creation stages in the womb.[36]

The Word *"alak"* is the plural of the *"alaka"* and it literally means, "Hanging, hanging object/being". Although one of meanings of this word is maggot stuck to the throat.[37] Ibn Cerir et-Taberi (d. 310/923) interprets this word as *"blood"* and pass off [38] while Fahreddin er-Razi (d. 606/1210) gives comparatively more detail and explains it as *"frozen/clotted blood."* [39] elsewhere in his exegesis, he provides detailed information about creation stages of human being in the womb dating every stage, probably based on the philosophical knowledge of the time. As one of these stages, he describes "*alaka*" as the stage in which sperm turns into foam on the sixth day of its journey in the womb as to begin heart, brain and liver places being formed. In course of time these places get away from each other and occur red lines (vessels) between them. By the fifteenth day of fertilization begins blood circulation in the vessels. This stage is called *"alak"*. However, Razi don't point out to hanging/implantation process of embryo to wall of uterus.[40] When we look at the commentaries of the modern time, we see that they explain the *"alak"* stage much more scientifically and accurately using and basing on the data of modern science[41], which is a right methodology for interpretation of Quran's natural verses.

According to the clearer findings obtained today, when the sperm and egg combine, the first essence of the baby to be born has been formed. This single cell, which is defined as zygote in biology, will multiply immediately being separated and will gradually become a small *"piece of meat"*. However, the

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35 al-Alaq 92/2.

36 al-Hajj 22/5; al-Mu'minoon 23/14; al-Faatir 35/67; al-Kiyame 75/38. Ayrıca bkz. Muhamed Fuad Abdulbaki, *el-Mu'cemu'l-mufehres li elfazi'l-Qur'ani'l-Kerim*, Cairo: Daru'l-Kutubi'l-Mısriyye 1945, p. 469

37 See Ragib el-Isfehani, *Mufredatu elfazi'l-Qur'an*, ed.. Safvan Adnan Davudi, Damascus: Daru'l-qalem, 1430/2009, "a-l-k" article. p. 579.

38 Taberi, op. cit. XIX, 16; XXIV, 83, 519.

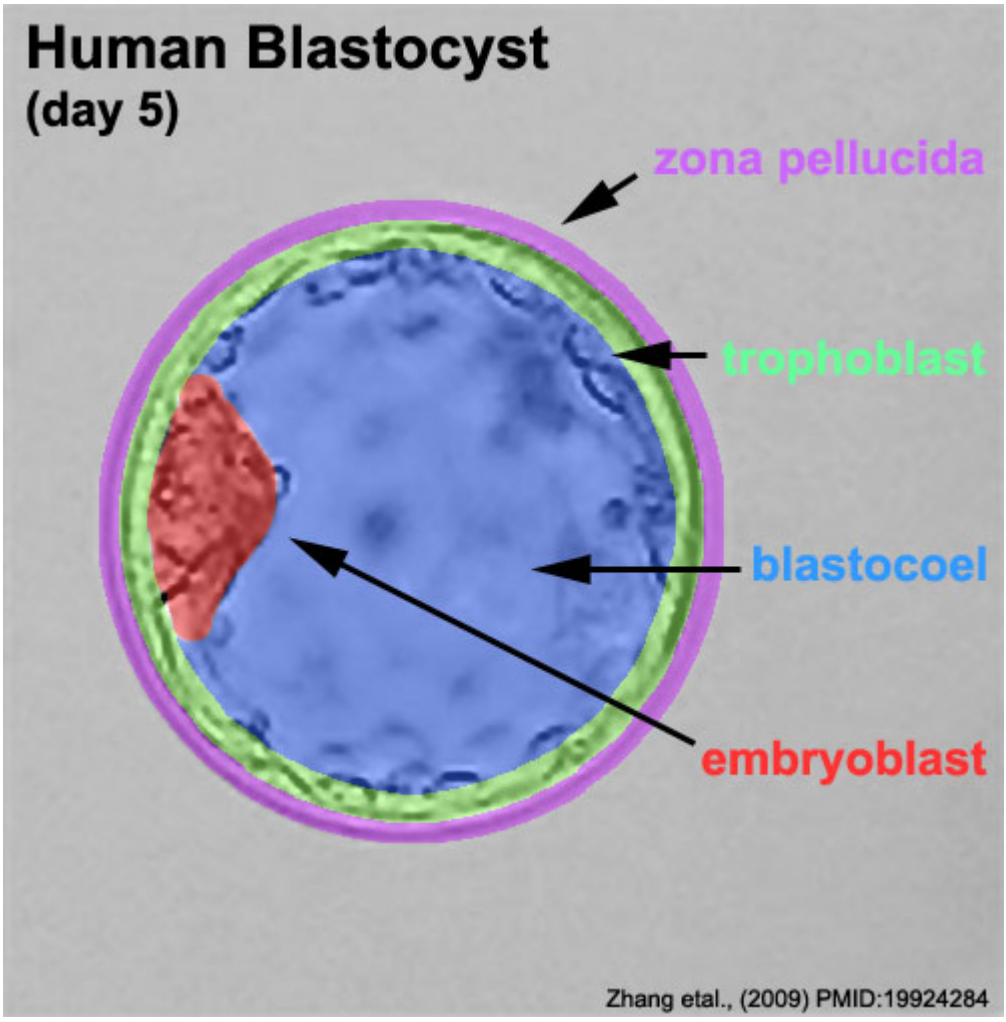
39 Razi, op. cit., XXIII, 204; 265.

40 Razi, op. cit., XXVIII, 16.

41 See for example, Muhammad at-Tahir b. Ashur, *et-Tahrir ve't-Tenvir*, Tunus 1984, vol. 30, p. 438.

zygote does not grow in space, but hangs on the wall of the uterus and clings on it. Thanks to its extensions, it adheres here like roots that settle in the soil. With this bond, it can absorb the substances it needs for its development from the mother's body.

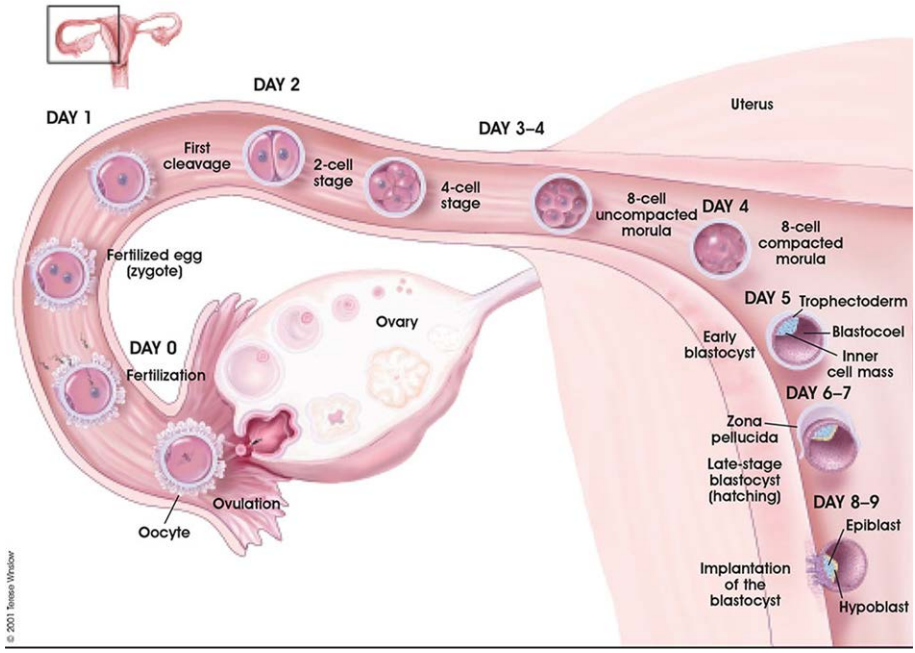
See the picture below:[42]



After 3 to 5 days of fertilization, the fertilized egg reaches the uterus. In a few days, the uterus clings to the thick upper layer of the uterus. Then, thanks to spongy protrusions, it begins to be implanted on this layer and reaches the veins of the mother. These cells are the cells that will allow the embryo to settle

[42] https://embryology.med.unsw.edu.au/embryology/index.php/Carnegie_stage_3#/media/File:Human_embryo_day_5_label2.jpg (Access 29.03.2020)

and feed into the inner wall of the uterus. İmplantation of the fertilized egg (blastocyst) begins at the end of the first week and ends during the second week.[43] See the pictures below[44]:

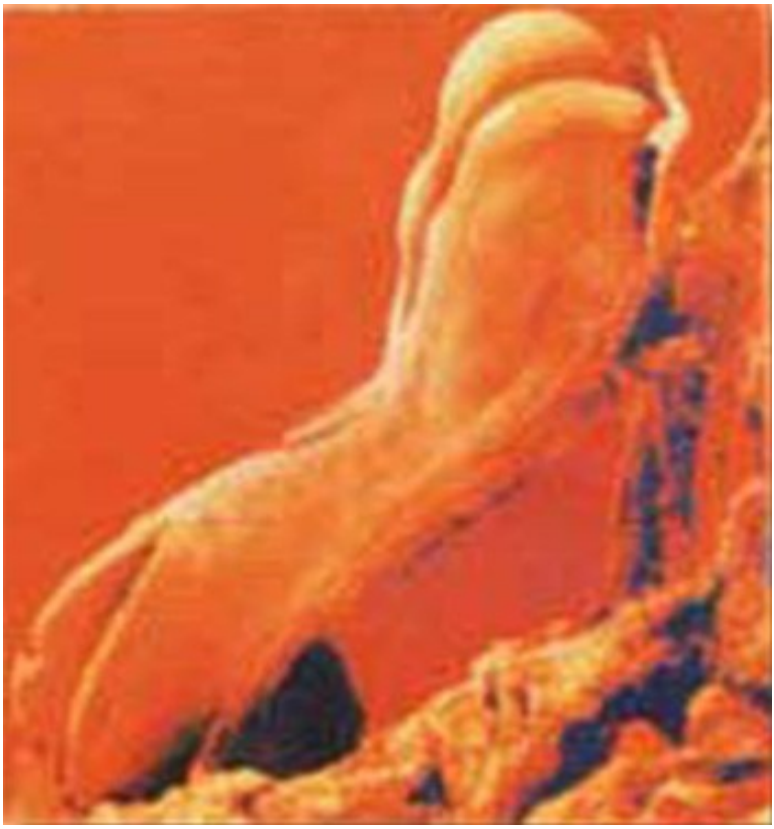


The picture below shows a zygote in the form of a piece of meat. This stage of development of the embryo in the womb, which modern embryology has identified, has been miraculously proclaimed in the Qur'an fourteen centuries ago using selectively the word "*alak*", which means "hanging on" in the Qur'an.[45]

[43] Keith L. Moore, *The Developing Human: Clinically Oriented Embryology*, Toronto, Kanada 1977, 2. Ed. p. 42.

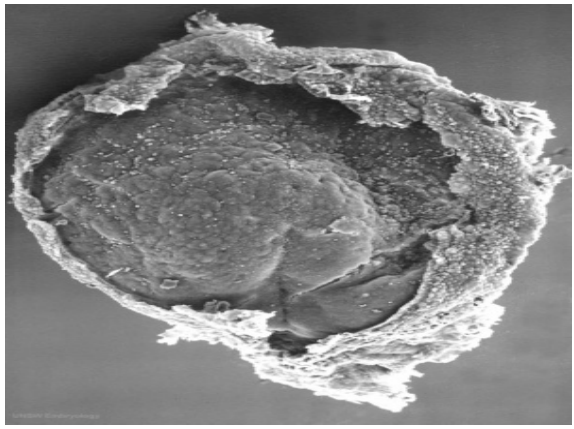
[44] https://embryology.med.unsw.edu.au/embryology/index.php/Implantation#/media/File:Week1_summary.jpg (Access 29.03.2020)

[45] https://kuranmucizelericilt1.wordpress.com/tag/asilayici-ruzgarlar/ (Access Date 21.05.2019)



The picture shows a zygote in the form of a piece of meat. This stage of development of the embryo in the womb, which modern embryology has identified, has been miraculously proclaimed in the Qur'an fourteen centuries ago using meticulously selected word; "*alak*", which means "clinging object" in the Quran.[46]

[46] https://kuranmucizelericilt1.wordpress.com/tag/asilayici-ruzgarlar/ (Access Date 21.05.2019)



Week 3 embryonic disc[47]

Here a very important miracle of the Qur'an emerges. In the Qur'an, while talking about the zygote that starts to develop clinging to the mother's womb, it uses the word with a meaning of "clinging, sticking object" in a very selective language.

There are many other concepts and expressions in the Qur'an that today are more accurately and correctly understood, thanks to scientific discoveries, and we believe that these concepts and expressions are meticulously chosen and go beyond the ages. Likewise in the Qur'an; the use of the concept of *tekvîr*[48] to indicate the roundness of the earth, *"likening of the inner depression experienced by the unbelievers to rising to the sky"*[49] pointing to the fact that the amount of oxygen decreases as it rises and this makes it difficult to breathe and using of the statements like that "*the boundries of the earth can only be overcome by force"*[50] in context of possibility of discovery of space all these implications and statements are remarkable pointing to a secret information that will be understood more clearly in the future by scientific discoveries.

Conclusion

It couldn't be said that religion and science are completely separate. The History witnesses that the religion-science tension observed in the Christendom was not experienced in the Islamic world, because of the positive attitude of Islam's holy book, the Qur'an, against science and scientific thought. The Qur'an in its first verse revealed; "*Read n the name of your Lord who created*"

47 https://embryology.med.unsw.edu.au/embryology/index.php/Week_3 (Access 29.03.2020)
48 Az-Zumar 39/5.
49 Al-An'am 6/125.
50 Ar-Rahman 55/33.

encouraged the devotees to read as the most important way to learn and research. In addition, in many verses, it mentioned pen, ink and writing as basic means of knowledge and pointed out the value of positive knowledge as a power by stating that those who have knowledge and those who are deprived of knowledge can never be one.

The Quran and science essentially aim to explain and interpret the same world. While science tries to examine the aspects of beings and their structural functions without interpretation, Islam adds spirit and meaning to these studies for the benefit of humanity. Therefore, I could confidently say that science and religion are not closely intertwined in any belief system as in Islam.

Thousands of verses in the Qur'an, which are in interest of positive sciences, have led Muslim scientists to deal with these sciences and interpret these verses with scientific knowledge. The Qur'an-science relations first began to be tested and developed within Islamic philosophy.

It's true that the language of Qur'an and the language of science are different. the Quran often uses literary language, suitable mostly for more than one interpretation, to explain physics and metaphysical facts. In fact, the Qur'an carries a universal message and has a word to say to the people of every time as well as to the people of modern world. Therefore, it is important to use the scientific language and discoveries of science to explain and carry the universal message of the Qur'an to the people of modern age.

Moreover, with the scientific level reached today, we understand that the Qur'an had used a language that goes beyond the age of some natural phenomena and scientific facts. This language coincides with today's scientific discoveries with nearly one hundred percentage.

There are many concepts and expressions in the Qur'an that today are more accurately and correctly understood, thanks to scientific discoveries, and we believe that these concepts and expressions are meticulously chosen going beyond the time, as can be seen in the terms of levakih and alaka, explained above.

Likewise in the Qur'an; the use of the concept of *tekvîr* to indicate the roundness of the earth, *"likening of the inner depression experienced by the unbelievers to rising to the sky"* pointing to the fact that the amount of oxygen decreases as it rises and this makes it difficult to breathe and using of the statments like that "*the boundries of the earth can only be overcome by force"* in context of possibility of discovery of space all these implications and statements are remarkable pointing to a secret information that will be understood more clearly in the future by scientific discoveries.

Therefore, we invite scientists to re-examine Qur'an's verses and concepts about the physical world objectively with scientific methods, as we suggest

the interpreters of the Quran to benefit from scientific data in the interpretation of such verses.

References

The Qur'an

Adıvar, Adnan, *Bilim ve Din*, İstanbul 1980

Akun, Omer Faruk, "Nâmık Kemal", *DİA*, İstanbul 2006, XXXII, 375.

al-Imam al-Gazzali, *Tehafutu'l-Felasife*, ed. Suleyman Dunya, Cairo: Dar al-Maarif 1385/1966.

Aydin, Mehmet, *Din Felsefesi*, 5th edition, Ankara 1996.

Baljon, J. M. S., *Modern Muslim Koran interpretation (1880–1960), Leiden: E.J. Brill, 1961.*

Brown, H., *The Wisdom of Science; Its Relevance to Culture and Religion*, Cambridge 1986.

Çelebi, Katip, *Mizanu'l-Hak*, İstanbul 1972.

Daştan, Cafer, *Ortaöğretim 10. Sınıf Biyoloji Ders Kitabı*, Ankara 2017.

İbn Rushd, *Faslu'l-Makaal*, İstanbul 1986.

Jansen, J. J. G., *The Interpretation of the Koran in Modern Egypt*, Leiden: E.J. Brill 1980.

Keith L. Moore, *The Developing Human: Clinically Oriented Embryology*, Toronto, Kanada 1977.

Kırca, Celal, *Kur'ân ve Bilim*, İstanbul 1996.

Kırca, Celal, *Kur'ân-ı Kerim'de Fen Bilimleri*, İstanbul 1989

Kurtubi, Abu Abdullah Muhammad b. Ahmed al-Kurtubi, *al-Cami li Ahkamu'l-Qur'an*, ed. Hisham Semir al-Bukhari, I-X, Riyadh: Daru Alemi'l-Kutub 1423/2003.

Muhamed Fuad Abdulbaki, *el-Mu'cemu'l-mufehres li elfazi'l-Qur'ani'l-Kerim*, Cairo: Daru'l-Kutubi'l-Mısriyye 1945.

Muhammad at-Tahir b. Ashur, *et-Tahrir ve't-Tenvir*, I-XXX, Tunus 1984.

Newton, Isaac, *An Historical Account of Two Notable Corruptions of Scripture*, London 184.

Nureddin es-Sabuni, *al-Bidaye fi usuli'd-diyane*, ed. Bekir Topaloglu, Ankara 1979.

Ragib el-Isfehani, *Mufredatu elfazi'l-Qur'an*, ed., Safvan Adnan Davudi, Damascus: Daru'l-Qalem, 1430/2009.

Razi, Fahrettin Muhammad b. Omar er-Razi, *Mefatihu'l-Gayb*, I-XXXII, Beirut: Daru İhyai't-Turasi'l-Arabi 1420.

Suyuti, Abdurrahman b. Kemal Celaluddin es-Suyuti, *ed-Dürrü'l-mensûr fi't-Tefsir bi'l-Me'sur*, I-VIII, Beirut: Darü'l-Fikr 1993, V, 73-74.

Taberi, Abu Jafar Muhammad b. Cerir et-Taberi, *Camiu'l-beyaan fi ta'vili aayi'l-Qur'an*, ed. Ahmed Muhammed Şakir, I-XXX, Muesseset ar-Risale, 1420/2000,

Taylan, Necip, "Bilgi", *DİA* (Türkiye Diyanet Vakfı İslam Ansiklopedisi), İstanbul 1992, vol. VI, p. 158-159.

Yılmaz, İrfan et. al., *Yeni Bir Bakış Açısıyla İlim ve Din*, I-II, İstanbul 1998.

https://embryology.med.unsw.edu.au/embryology/index.php/Carnegie_stage_3#/media/File:Human_embryo_day_5_label2.jpg (Access 29.03.2020)

https://embryology.med.unsw.edu.au/embryology/index.php/Implantation#/media/File:Week1_summary.jpg (Access 29.03.2020)

https://embryology.med.unsw.edu.au/embryology/index.php/Week_3 (Access 29.03.2020)

https://kuranmucizelericilt1.wordpress.com/tag/asilayici-ruzgarlar/ (Access Date 21.05.2019)
https://kuranmucizelericilt1.wordpress.com/tag/asilayici-ruzgarlar/ (Access Date 21.05.2019)
https://kuranmucizelericilt1.wordpress.com/tag/asilayici-ruzgarlar/ (Access Date 21.05.2019)
https://kuranmucizelericilt1.wordpress.com/tag/asilayici-ruzgarlar/ (Access Date 21.05.2019)