

A Comparative Study of the Qur'ānic and Scientific Viewpoints on the Origin of Life

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(Received: January 4, 2021; Revised: January 20, 2021; Accepted: March 10, 2021)
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Abstract

The question of the origin of life on Earth is one of the fundamental but controversial subjects hotly disputed among the scientists and the religious circles. Therefore, the purpose of this research was to examine the qur'ānic and experimental scientific perspectives on the issue of the origin of life on Earth. In this paper, after examining the literal meanings and the technical usages of relevant terms, the relationship between the Qur'ān and experimental science is examined. The qur'ānic verses (including the Qur'ān 21:30 and 24:45) and the interpretations of the Muslim qur'ānic exegetes have been discussed. Thereafter, some prominent scientific theories/hypotheses such as the special creation, aquatic origin, spontaneous generation, eternity of life, evolution, and RNA and DNA worlds are discussed and critically reviewed. The descriptive-analytical research method was used in this study, and the findings showed that the Qur'ān discusses the origin of life on the Earth mysteriously and it does not offer a single, unified theory regarding it. Likewise, the majority of the theories/hypotheses proposed by the ancient and contemporary scientists on the origin of life on Earth are not in conformity with the qur'ānic report.

Keywords: Origin of life, Life on Earth, Scientific interpretation, Qur'ān, Science.

Introduction

The issue of the emergence of life on Earth has been one of the most fundamental questions of ontology in human history, and has generally been a subject of debate between scientists and Islamic philosophers. In the meantime, various hypotheses and theories about the origin of life on Earth have been proposed by the scientists in this regard. Similarly, some Muslim exegetes of the Qur'ān such as Shaykh Ṭūsī (d. 460 LH/1067 CE), Fakhr Rāzī (d. 606 LH/ 1209 CE), Shaykh Ṭanṭawī (d. 1358 LH/1940 CE), Sayyid Quṭb (d. 1386/1966 CE) are of the opinion that the Qur'ān makes an elicited declaration on this controversial topic.

From the last two centuries on, the Muslim scholars have introduced discussion on the scientific miracle of the Holy Qur'ān, and in this direction, many of the discoveries of the experimental sciences that conform to the Qur'ān have been used to establish the authenticity of this sacred Book.

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Without any doubt, the research on a comparative study between the Qur'ān and the experimental sciences on the origin of life on Earth is relatively new, but many Qur'ānic exegetes and scholars in the fields of Qur'ān and biology have made valuable and scholastic contributions to the discussions relating to the origin of life on Earth.

To date, several studies have been carried out by the Muslim scholars on the related topics such as the emergence of universe, the heaven, the Earth, the galaxies, the stars, etc. in general, and several books and articles have been written by Muslim scholars and published in Arabic and Persian languages about life on the Earth, the origin of life, and the origin of man merely from the Islamic perspective.

In the late 1960s, 'Abdul Ghanī al-Khaṭīb wrote a book in Arabic with a title '*Qur'ān wa 'ilm al-jadīd*' (Qur'ān and the modern science), which was translated into Persian under the title '*Qur'ān wa 'Ilmi Imrūz*' by Asadullāh Mubashshirī in 1983. In the chapter three of the book, he has discussed various perspectives on the creation or formation of life (Khaṭīb, 1983: 69-97). In 1986, Shahīd Riḍā Pāknizhād published a book in Persian titled '*Awwalīn dānishgāh wa ākharīn payāmbar*' (The first university and the last prophet) which focuses on the Qur'ānic and Ḥadīth perspectives on several fields of the medical sciences. A section of its first volume is on biology in which he discusses various perspectives on life origin (Pāknizhād, 1986, vol. 1: 64, 74).

In 1997, AbdulKarīm Bī Āzār Shīrāzī in his factual work '*Qur'ān wa ṭabī'at: Gudhashta wa āyandayi jahān*' (Qur'ān and the nature: The past and the future of the world) focused on the emergence of the natural world from the Qur'ānic viewpoint. In a section of the book, he discussed the emergence of the Earth, life, and some other living organisms (Bī Āzār Shīrāzī, 1997: 15-42).

In 2001, a French surgeon, Maurice Bucaille who became a Muslim, discussed the origin of life in his book "*What is the origin of man?*" The book focuses primarily on the origin of man, but in a chapter with the heading "*The origin and perpetuation of life,*" he discusses the Qur'ānic viewpoint on the origin of life on Earth, one which he believed was aquatic (Bucaille, 2001: 166-167).

In 2002, Muḥammad 'Alī Riḍā'ī Iṣfahānī published a book titled "*Pazhūhishī dar 'ijāz 'ilmī Qur'ān*" (A critical study of the Quran's scientific miraculousness). In the section four of the book under the heading "*Qur'ān and the biological sciences,*" he discussed the origin of life from the Qur'ānic viewpoint and the theory of biological evolution. He presented and analysed the opinions of some Qur'ānic exegetes and experts on certain Qur'ānic verses on the origin of life on Earth (Riḍā'ī Iṣfahānī, 2002, vol. 2: 235-293).

Sa'īd Ḥamīdī Kalījī wrote a book in 2005 titled '*Qur'ān wa Ṭabī'at*' (Qur'ān and the nature) which focuses primarily on the Qur'ānic viewpoint about several natural resources (such as water, air, cloud, rain, sea, mountains, etc.) and the creation of some creatures (such as animals, insects, birds, etc.). Similarly, he briefly pointed out the origin of the Earth and the emergence of life (Ḥamīdī Kalījī, 2005: 170-171).

Meanwhile, it is pertinent to say that the relentless efforts, particularly by the Muslim experts on the fields of natural sciences and the Qur'ān are highly commendable, as they are helpful in one way or the other. However, none of these studies makes a comprehensive comparative study about the origin of life on Earth from the viewpoint of the Holy Qur'ān and the experimental science. In the same vein, we could hardly lay our hands on relevant and comprehensive materials in English language on this topic. Therefore, this study was necessary in order to explain and clarify the Qur'ānic viewpoint on this controversial topic (i.e. origin of life) and likewise to respond to the academic community's need in this regard.

Conceptual Analysis

In this section, the literal and technical definitions of some crucial and related terms shall be discussed, including what follows.

Life (Ḥayāt)

The definition of the term “life” is related to the branches of science such as biology, biochemistry, and astrobiology. However, up until now, there has been no general agreement among the scientists on a single definition of life. Meanwhile, in the literal sense, the term “Ḥayāt” is an Arabic word, which is translated in English as “life” or “lifetime” (Ḥayyim, 2006: 327).

However, in a technical usage, life is defined as “the ability to breathe, grow, reproduce, etc. which people, animals, and plants have before they die and which objects do not have” (Hornby, 2000: 683). Hence, life, according to Rāghib Iṣfahānī, is the growing or developmental force present in plants and animals or the sensory force through which the animals is considered living (Rāghib Iṣfahānī, 1991: 268).

From the definitions above, one may conclude that life is the condition that distinguishes living organisms (i.e. animals and plants) from inorganic matter, including the capacity for growth, reproduction, functional activity, and continual change preceding death.

Science

The term “science” – in its literal sense – comes from the Latin word '*scientia*', meaning “knowledge.” However, in a technical usage, it is defined as knowledge about the structure and behavior of the natural and physical world, based on facts that you can prove, for example by experiments (Hornby, 2000: 1051).

In this research, the term ‘science’ refers to a particular branch of science that is concerned with the study of the natural world based on facts learned through experiments and observations.

Scientific interpretation

According to Dhahabī, “A scientific interpretation is (a method of) interpretation in which scientific terms are applied to the verses of the Qur’ān, and in this process, an exegete strives to extract various scientific and philosophical views from the verses” (Dhahabī, n.d, vol. 2: 474). In the opinion of Ḥāfīz, “A scientific interpretation is to unveil (explain) the meanings of the verses of the Qur’ān in accordance with facts whose authenticity is established by the natural sciences” (Ḥāfīz, 1993: 179).

Defining a scientific interpretation, Fahd Rūmī said,

A scientific interpretation is an effort carried-out by an exegete to uncover (unveil) the relationship or connection between the cosmic verses of the glorious Qur’ān and the discoveries of the natural science in such a way to establish the Qur’ānic miracle and to testify to its (divine) origin and its suitability for every time and every place (Rūmī, 1986, vol. 2: 549).

In addition, in the opinion of Riḍā’ī Iṣfahānī, “A scientific interpretation is the explanation of the verses of the Qur’ān with the aid of the experimental sciences” (Riḍā’ī Iṣfahānī, 1996: 274).

In general, the definition of Fahd Rūmī seems to be more appropriate, as it is more comprehensive and precise than other definitions.

Relationship between the Qur'ān and the modern science

Islam is a religion of knowledge and logical understanding, and it promotes knowledge and scientific advancements. From its inception, the message of Islam was founded on the basis of knowledge (Qur'ān 96:1-5); in fact, knowledge is the basis of the Islamic civilization. It was because of this reason that the Bedouin Arabs of the 'Age of Ignorance' - under the guidance of the glorious Qur'ān - could progress drastically in various areas of human endeavors to such an extent that could make a remarkable societal and political change in the Arab world and the remaining parts of the world.

According to a report, it is observed that there are over 750 verses in the Qur'ān dealing with science (*ʿIlm*) or its related terms (ibid: 133). Likewise, several verses of the Qur'ān enjoin human being to study and reflect on nature. This is undoubtedly a qur'ānic approach towards creating a favorable atmosphere for scientific inquiry.

However, there is a difference of opinions among the Muslim scholars on the relationship between the Qur'ān and the science. These could be broadly categorized into three approaches.

One: An extreme positive approach

In an attempt to establish the miraculous nature of the Qur'ān, a group of Muslim scholars – based on their interpretation of certain verses of the Qur'ān (e.g., Qur'ān 6: 38; 6: 59; 16: 89) and the Prophetic *Ḥadīth* – are of the opinion that the Qur'ān conforms one hundred percent to the science and in fact, there is no disparity between them. Scholars such as Abū Ḥāmid Ghazālī (d. 1111 CE) in his books "*Ihyā' ulūm al-dīn*" (Ghazālī, n.d, vol. 1: 289) "*Jawāhir al-Qur'ān*" (ibid, n.d: 26-27), Badr al-Dīn Zarkishī (d. 1392 CE) the author of a popular book on qur'ānic science "*Al-Burhān fī ulūm al-Qur'ān,*" Jalāl al-Dīn Suyūtī (d. 1505 CE) in his book "*al-Itqān fī ulūm al-Qur'ān*" (Suyūtī, 1983, vol. 2: 262), Shaykh Ṭanṭāwī (d. 1965 CE) in his commentary on the Qur'ān called "*al-Jawāhir fī tafsīr al-Qur'ān al-karīm*" (Ṭanṭāwī, n.d, vol. 1: 3), etc. are among those who are of the opinion that all sciences are in the Qur'ān or that the Qur'ān itself is the main source of all the sciences.

In accordance with this view, it is believed that the Qur'ān (as a miraculous Book) includes all kinds of knowledge and therefore, it contains the basic ingredients of all natural sciences.

Two: An extreme negative approach

A group of Muslim scholars such as Abū Ishāq al-Shāṭibī (d. 1388 CE) as indicated by Dhahabī in his book '*Al-Tafsīr wa al-mufasssīrūn*' is of the opinion that the Qur'ān and the science are opposite or parallel to each other (Dhahabī, n.d, vol. 2: 485-489). The adherents of this viewpoint are of the opinion that the Qur'ān is a divine Book of guidance and it does not contain any scientific fact.

Thus, in accordance with this perspective, the glorious Qur'ān is merely a book of guidance and it has nothing to do with the science or scientific facts.

Three: A moderate approach

Another group of Muslim scholars, such as Sayyid Quṭb, 'Allāma Ṭabaṭabaī, Āyatullāh Ma'rifat, and Āyatullāh Makārim Shīrāzī, maintains that the Qur'ān is neither one hundred percent in conformity to the science nor against it. In accordance with this perspective, the Qur'ān without any doubt is believed to be a divine Book of guidance but in the same vein, in attempts to establish its divinity, it makes some references to some scientific facts, which

were unknown by the people during the period of its revelation. However, they are of the opinion that the Qur'ān is not a scientific encyclopedia that deals with every aspect of science; rather, it is a divine Book revealed for the purpose of guiding the human to achieve perfection in every field of human endeavors.

In conclusion, it could be rightly said that some scientific theories conform to the Qur'ān while some contradict it. On the other hand, the Qur'ān conforms to science in some aspects that are universally accepted, but at the same time, it disagrees with some other scientific hypotheses. In the light of this, it is inappropriate to say that the Qur'ān conforms or contradicts absolutely with the science or the scientific theories. Furthermore, it is considered inappropriate to alter an apparent meaning of the qur'ānic verses in order to make them conform to the scientific theories or to use the Qur'ān for the interpretation of scientific facts. Thus, the science cannot be used as the standard or yardstick to ascertain the correctness of the Qur'ān. On the contrary, the glorious Qur'ān is a very reliable standard to determine the correctness of any scientific theory.

The Qur'ān and the origin of life on the Earth

In several verses of the noble Qur'ān, there are discussions about the creation of some creatures, the different stages of creation, the system involved in the creation of living creatures, and the effects of life. Interestingly, one of the important themes discussed in the Qur'ān in relation to life is that life – just like death – is a creation of Allah (Qur'ān 67:2) and He is indeed the only Supreme Being, Who gives life and takes it away at a designated time (Qur'ān 10:56; 22:66; 40:68; 44:8).

Meanwhile, a question that may come to the mind here is “Does the Qur'ān with all its emphasis on the creation makes any reference (either explicitly or implicitly) to the origin of life on the Earth?”

Generally speaking, there are two viewpoints among the qur'ānic exegetes in this regard. Some scholars believe that the Qur'ān does not make any explicit reference to the emergence of life on Earth. In other words, this group of scholars believes that the Qur'ān does not give a detailed account of how life emerges on Earth. However, they believe -based on several other verses of the Qur'ān- that the Omnipotent God (Allāh) is the ultimate source of creation and He is the only Supreme Being, Who gives life and takes it (Qur'ān 30: 11, 22). In the light of this, therefore, it is established that Allāh alone is the absolute source and the originator of life on Earth.

On the contrary, some Muslim scholars are of the opinion that Qur'ān – in some few verses – makes references to the origin of the lives of living organisms on Earth. The verses such as "...And We made every living thing out of water” (Qur'ān 21: 30) and "Allāh created every animal from water..." (Qur'ān 24: 45) are believed to refer to the emergence of life on Earth. They are of the opinion therefore that water is the primary source of life on Earth. An indication believed to conform with the contemporary scientific theory on the origin of life on Earth.

At this juncture, it is pertinent to refer to some few qur'ānic commentaries of both the early and the contemporary qur'ānic exegetes/experts in order to understand better the interpretations of the above-mentioned verses of the Qur'ān.

Viewpoints of the early qur'ānic exegetes/experts

In his commentary of the Qur'ān titled *Al-Tibyān fī tafsīr al-Qur'ān*, Shaykh Ṭūsī (d. 1067CE), a prominent Shī'a qur'ānic exegete, stated that water is the primary source of life of every living thing (i.e., plants and animals) on Earth. While giving an explanation to the

Qur'ān 21:30, he says, "The meaning of the statement 'We made every living thing out of water' is that every living thing is made from water and this by default includes the trees and plants" (Tūsī, n.d, vol. 7: 243).

On the interpretation of the Qur'ān 24:45, he adds,

...God Almighty informed that He is the One Who created from water everything that moves from among the animals.... However, He said "from water" because the origin of creation is water, but which turned thereafter to fire from which the Jinn were created, turned to the spirit from which the angels were created, and then turned to the clay from which Adam was created. And the evidence buttressing that water is the origin of all the animals is the God's statement, "and We made every living thing out of water. (ibid: 448)

Similarly, Fakhr Rāzī (d. 1209 CE), a popular Sunnī qur'ānic exegete, in his qur'ānic commentary titled '*Al-tafsīr al-kabīr*,' is also of the opinion that water is the source of life of every living thing (i.e., plants and animals). He says while explaining the Qur'ān 21:30,

...If the clause "Ja'alnā" (We made) has just an object, the verse might mean that God created every animal from water just like the verse 45 of Qur'ān 24 "Allāh created every animal from water" or that He created them from water simply because of their excessive dependence or inclination to water. However, if it has two objects, the meaning shall be that God transform every living thing with the aid of water and they cannot do without it. (Fakhr Rāzī, 1999, vol. 22: 138)

On the interpretation of the Qur'ān 24:45, he maintains that water is the first source of creation on Earth,

...The verse is to explain the source of creation and the first source is the water...., verily, the meaning of the word 'dabba' (i.e. animal) used in the verse refers to those animals that move and their habitats are on the surface of the Earth. [Based on this], the Angels and the Jinn are therefore excluded from it. However, for the fact that the majority of animals are created from water (either that they were reproduced through seminal fluid or that they could not survive without water), there is no hindrance therefore to use a general term in such situation, for the majority takes the place of all..." (ibid, vol. 24: 406)

Viewpoints of the contemporary qur'ānic exegetes/experts

In the course of explaining the Qur'ān 21:30 and 24:45, some contemporary exegetes such as Ālūsī, Sayyid Quṭb, Ṭaṇṭawī, 'Allāma Ṭabaṭbaī, Āyatullāh Ma'rifat, Āyatullāh Miṣbāḥ Yazdī, Āyatullāh Makārim Shīrāzī, etc. are either of the opinion that 'water' is the primary source of life or that it is an important factor/agent for the existence and the survival of living things on the Earth (Ālūsī, 1994, vol. 9: 35; Sayyid Quṭb, 2004, vol. 4: 2376, 2523; Ṭaṇṭawī, n.d, vol. 10: 198).

Sayyid Quṭb, a prominent Sunnī exegete of the Qur'ān, in his commentary of the Qur'ān "*Fī Zīlāl al-Qur'ān*," wrote while explaining the Qur'ān 24:45,

And this reality which is presented by the Qur'ān in a simple way refers to the fact that every animal was created from water. It may refer to the uniformity of the basic element in the formation of all living things, which is water. In addition, it may mean what the modern science tries to prove, i.e., life emerged from the sea and it formed in the water. Thereafter, various species were formed...We shall add no explanation to this indication but we rely only on the qur'ānic truth that affirms that God created all the living organisms from water. (Sayyid Quṭb, 2004, vol. 4: 2523)

‘Allāma Ṭabaṭabāī, one of the contemporary Shī‘a qur’ānic exegetes, while explaining the Qur’ān 21:30 in his outstanding qur’ānic commentary *Al-Mīzān*, says:

From the apparent context of the verse, the statement “And We made every living thing out of water” appears that the word “made” [in the verse] means “created,” and the phrase “every living thing” is its object, which means that water has a complete role in the existence of living beings, just as He has brought the same subject in another verse when He said, “And Allāh created every animal from water” [Qur’ān 24: 45], and perhaps by implication, the verse does not imply that the creation of the angels and the likes are also from water. However, the subject-matter of the verse (i.e., the relationship between life and water) is an issue that has been well clarified and proven in scientific discussions. (Ṭabaṭabāī, 1970, vol. 14: 279)

Similarly, Āyatullāh Makārim Shīrāzī, a contemporary Shī‘a Jurist and a qur’ānic exegete, point, out that the Qur’ān 21:30 has two common interpretations. First, the life of all living things, either plants or animals, depends on water (i.e., the descent of rain from the heaven). Second, the living creatures are created from the seminal fluid. However, the intended meaning of water mentioned in this verse refers to the seminal fluid from which the living creatures are usually reproduced. (Makārim Shīrāzī, 1992, vol. 13: 396)

He further adds,

...It is interesting that scientists today believe that the first gemma of life has been found in the depth of the seas, and that is why they think that the life has begun by means of waterIt is also noteworthy that according to scientific studies, the main part of man’s body, as well as that of many animals, consists mostly of water (about seventy percent). (ibid)

Muḥammad Hādī Ma‘rifat (d. 2007 CE), an outstanding Shī‘a exegete and a researcher on the Qur’ān, in his book “*Al-Tamhīd fī ‘ulūm al-Qur’ān*” says,

The legal texts revealed through the revelation show that water is the first thing that God created among the physical bodies. ...The researchers among the qur’ānic exegetes are of the opinion that the term ‘water’ in the verse [i.e., Qur’ān 24:45] refers to the liquid (water) which is considered as the source of all creatures, because it was from it that the life originated, the first creature in the form of a simple animal with one cell (amoeba) emerged in it, and thereafter, complex animals with many cells (over millions cells) were formed. However, the modern science has not provided an acceptable answer to the question on how the first creature found in water emerged (Ma‘rifat, 1994, vol. 6: 31-33).

Scientific theories on the origin of life

There have been series of debates and discussions on the origin of life on the Earth among the scientists and the philosophers since old times. Interestingly, despite great and tremendous successes achieved in many fields of science over the centuries, there is no unanimous theory or hypothesis about the question of the origin of life. In this section, some of the prominent theories/hypotheses proposed by the ancient and the contemporary scientists on the origin of life on the Earth shall be discussed and critically analyzed.

Theory of special or divine creation

The theory of special or divine creation was proposed by the theist (in fact, the Christian) scientists, which contends that life on Earth is created by a supernatural power, the God. According to this, it is believed that God is the source of life and the Creator of the universe, planet, plants, animals, human being, and all the creatures in six natural days (Vishal, 2014:

3). In addition, it is believed that all living organisms were created on the same day and in the present form. Thus, there is no difference in the time of their appearance and there was no evolution or adaptation (ibid).

A critical review

The theory of special or divine creation was debunked and rejected by the materialist scientists on the basis that it was purely based on religious belief and there was no experimental evidence to support it. In addition, the claim that all living organisms were created on the same day was rejected based on a scientific fact that shows that living organisms appeared on Earth in different periods due the differences in the ages of different fossils. Furthermore, the qur'ānic viewpoint is that Allāh is the sole Creator and the perfect Originator of life on Earth and the emergence of Earth and everything therein came into existence through various stages.

Theory of Spontaneous Generation

One of the oldest theories on the origin of life is the spontaneous generation. From classic Greek times until the middle of the 19th century, it was generally accepted that living organisms could originate spontaneously, without parents, from a non-living material. That is to say, living things could originate, not only from others, but they could also come into being spontaneously, appearing all at once, fully formed and organized from non-living materials (ibid: ix).

A critical review

The theory of spontaneous generation was criticized and was experimentally disproved by Francisco Redi, Lazzaro Spallanzani, and Louis Pasteur. It is established that living organisms could not be produced by non-living material; rather, they are generated by the pre-existed organism (Oparin, 1957: 18).

In addition, the theory of spontaneous generation contradicts a number of verses of the Qur'ān that categorically state how some of the living organisms were created by God from other living things of their species.

Aquatic or Water origin theory

Water origin theory is one of the earliest theories proposed by Thales (circa 624 BC- 547 BC) on the origin of the world. He believed that the greater part of the Earth's surface is water and that everything depends on water and life on the Earth is impossible without water (Ashwini, n.d: 2).

A critical review

A number of scientists rejected this theory on the basis that it lacks any strong scientific evidence to support it. However, according to the opinion of some qur'ānic exegetes, it is believed that the theory of water origin conforms to the qur'ānic report.

The theory of the eternity of life

According to the theory of the eternity of life, it is believed that life is never destroyed nor does it arise afresh; it only changes its external material envelope, as it transforms inert

material into living organisms (Oparin, 1957: 43). In other words, it is believed based on this theory that life has no beginning or end, but rather, it has been in existence and it will continue to be so. Thus, there is no question of the origin of life, since life is eternal (Vishal, 2014: 7).

A critical review

The theory of the eternity of life does not have anything to do with the problem of the origin of life on Earth, as life is believed to be eternal and without a beginning or end. Likewise, the theory could not be substantiated with convincing scientific evidences. More importantly, the Earth itself does not seem to be eternal as it originated at some time (Oparin, 1957: 50).

According to the Qur'ān, eternity is only a unique attribute of the Creator (i.e., God) and He is the only Being Who neither has a beginning nor an end. Thus, life on Earth has a beginning and an end, and consequently, the theory of the eternity of life is not in conformity with the Qur'ān and the Islamic pristine teachings.

Theory of evolution

In 1842 CE, Charles Darwin came with a theory that highly organized living creatures can appear on the Earth only as the result of prolonged development, that is, the evolution of higher forms from the lower ones. He believed that all living creatures are related by descent from common ancestors. It is believed that unicellular organisms appear first, and then they change first to simple multicellular and later to complex multicellular organisms such as seed plants and vertebrate animals. The fish was the initial early vertebrate and it gradually changed to form amphibians. These amphibians have produced reptiles and they have evolved further to birds and mammals (Vishal, 2014: 17).

A critical review

Contrary to the concept of natural selection proposed by Darwin, it is discovered that vestigial organs are selected despite the fact that they are not useful for animals, but even then they are preserved generation over generation (Vishal, 2014: 39). In addition, the theory of chance in the formation of life has been rejected by the prominent scientists such as Oparin who believed that life is more complex to be an effect of chance (Bucaille, 2001: 52). Similarly, there is no scientific evidence to support that all living organism originated from common ancestors. Moreover, there is no such report in the Qur'ān, particularly in relation to the human species. The Qur'ānic reports emphatically state that Adam was the first human being on the surface of the Earth and he was the ancestor of the human species.

RNA world and DNA world theories

In 1968, Sir Francis Crick proposed that RNA or *Ribonucleic Acid* - which is an essential chemical (i.e., nucleic acid) present in all living cells - must have been the primary genetic material as it is capable of self-replication. Thus, according to some biologists, RNA or *Ribonucleic Acid* is believed to have been capable of initiating life on its own in the early history of Earth (Ashwini, n.d: 6).

A few biologists on the contrary, are of the opinion that DNA or *Deoxyribonucleic acid* is the building block on which almost every form of life on Earth is based. Thus, they insisted that DNA alone could initiate life on its own (ibid).

A critical review

In the first instance, RNA is an extremely complex molecule, so it is not entirely clear how these nucleotides have been formed or how they would have come together to form functional polymers under early-Earth conditions (Harold, 2012). The RNA is often considered too unstable; therefore, it is not possible to conclude that a self-replicating molecule was the primary source of catalytic mechanisms fundamental to living systems (Ashwini, n.d: 6-8).

One of the underlying current debates surrounding the RNA or DNA world hypotheses is the 'protein first' hypothesis. It is established that the shortest DNA strand needs protein to help it replicate. This is the 'chicken and egg' problem (genes require enzymes, enzymes require genes), and the question is "Which came first, the chicken or egg?" In the light of this, therefore, if the RNA could not be formed except with the presence of protein, then the RNA or DNA could not be considered as the origin of life (ibid).

Conclusion

1. The life of living organisms on the Earth has without any doubt got a history of creation that no one knows exactly how its conditions were, and it is indeed a puzzle to man.
2. In some of its verses, the glorious Qur'ān makes references to the creation of some living organisms such as insects, reptiles, birds, animals, and human beings, but it does not offer a single, unified theory regarding the origin of life on Earth. It discusses mysteriously about the source of life on the surface of Earth. This is because the Holy Qur'ān is a Divine Book of guidance and not a science encyclopedia.
3. The Qur'ān 21:30 and 24:45, which according to some interpretations are believed to point to water as the origin of life, are in fact pointing to the significant role of water in the formation and continuity of life, not the emergence of life on Earth. This is because water is an essential component of creation and the survival of every living thing on the Earth depends on water. In other words, life without water is impossible on the Earth. Thus, water is considered the primary source of life on the surface of the Earth.
4. The issue of the origin of life on Earth is one of the unresolved problems of the experimental sciences. This is because life itself is metaphysical in nature and cannot be proved or disproved in the laboratory or with the scientific apparatus, as this is beyond the scope of the science that deals only with physical phenomena. More importantly, none of the scientists has claimed to produce life through chemical action and reaction in the laboratory.
5. All the theories proposed by the experimental scientists on the origin of life are just hypotheses, as most of them were based on mere conjectures or incomplete evidences. Above all, none of these theories is universally accepted among the biologists.
6. In accordance with the qur'ānic reports, the Almighty Allāh alone is the primary source and the origin of life and death. He is the sole Creator and Initiator of every creature in the entire Universe. Interestingly, no one from among either the humans or the Jinn has ever claimed this great responsibility.

References

The noble Qur'an.

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