

نشریه علمی

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«مقاله پژوهشی»

خرافه‌انگاری داده‌های علمی قرآن کریم در بوته نقد

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چکیده

از دیرباز تاکنون، یکی از روش‌های مبارزه با قرآن کریم، ترویج شبهه‌های علیه این کتاب آسمانی بوده و در این راستا مخالفان از هیچ کوششی دریغ نکرده‌اند. از جمله این شبهات، خرافه‌انگاری داده‌های علمی قرآن کریم که به کرات از سوی مخالفان مطرح گردیده است. به باور آن‌ها ریشه گزاره‌های علمی قرآن را می‌بایست در باورهای خرافی و غلط گذشتگان جستجو کرد که پیامبر (ص) آن‌ها را از گذشتگان و محیط علمی- فرهنگی عصر خود به عاریت گرفته است. در همین زمینه اخیراً کتابی با عنوان «نقد قرآن» نوشته شخصی به نام سه‌منتشر گردیده و نویسنده به منظور دستیابی به این هدف، در طرح شبهات متعددی این ادعا را مطرح کرده که فلان مطلب علمی در قرآن کریم، برگرفته شده از فلان باور خرافی و غلط قدیمی است. وی تلاش فراوان کرده که به هر طریق ممکن، بین گزاره‌های علمی قرآن با نظرات علمی جهان باستان و خرافه‌های قدیمی ارتباط برقرار نماید. پژوهش حاضر که به روش توصیفی- تحلیلی با گرایش انتقادی و براساس منابع کتابخانه‌ای انجام شده، در صدد بررسی این ادعا و نقد آن است و می‌کوشد با انجام پژوهش جامع درباره تعدادی از این شبهات، ارتباط گزاره‌های علمی قرآن و نظرات علمی جهان باستان را تبیین نماید.

واژه‌های کلیدی

گزاره‌های علمی قرآن، خرافه‌انگاری، نقد قرآن، سه‌ما.

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ORIGINAL ARTICLE

Critical Study of the Superstition of Scientific Data of the Holy Qur'an

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ABSTRACT

From a long time until now, one of the methods of fighting against the Holy Qur'an has been to spread doubts against this Divine Book. In this regard, the opponents have not spared any effort. Among these doubts, the superstition of the scientific data of the Holy Qur'an has been repeatedly raised by the opponents. According to them, the root of the scientific propositions of the Qur'an should be sought in the superstitious and false beliefs of the past, which the Prophet (PBUH) borrowed from the past and the scientific-cultural environment of his era. In this context, recently a book entitled "Criticism of the Qur'an" written by a person named Soha was published. To achieve his goal, the author claimed that some scientific material in the Holy Qur'an are derived from some superstition. He has made great efforts to connect the scientific statements of the Qur'an with the scientific opinions of the ancient world and old superstitions. This research, based on a descriptive-analytical method with a critical approach using library sources, aims to investigate and criticize this claim, trying to establish the relation between the scientific propositions of the Qur'an by conducting a comprehensive research on a number of these doubts. and explain the scientific opinions of the ancient world.

KEYWORDS

Scientific Propositions of the Qur'an, Superstition, Criticism of the Qur'an, Soha.

١. Introduction

The Holy Qur'an, which is a book that guides mankind to perfection and salvation, sometimes has references to other sciences. As the verses of the Holy Qur'an talk about the manifestations of God's creation and some of the secrets of existence, to guide man to the creator of the world through the universal verses. Although the Holy Qur'an is not a book of natural sciences and the purpose of bringing up such topics is not simply to mention a natural subject, considering that the revelation of the Holy Qur'an was based on divine knowledge and was revealed to the secrets of the world by the All-Knowing Creator, it will not be inconsistent with scientific rules and conclusive evidence of natural sciences. The Holy Qur'an says in verse ١٤ of Surah Al-Mulk: "Isn't the God who created creation knowledgeable about its secrets?" Nevertheless, some have denied the validity of the scientific statements of the Qur'an and have tried to put these data in conflict with the sciences discovered by the scientists of the world. In this context, recently a book titled "Criticism of the Qur'an," written by a person named Soha, has been published via cyberspace. The attempt of the author, who chose a nickname for himself in a part of the book, is to prove the existence of errors and weaknesses in the scientific data of the Holy Qur'an. In the second chapter of his book, titled as "Scientific Errors of the Qur'an," he claimed that some scientific material in the Holy Qur'an is derived from some old superstition and false believes. He has made great efforts to connect the scientific statements of the Qur'an with the scientific opinions of the ancient world and old superstitions. The widespread publication of the book via internet has caused a lot of religious damage, confirming the need to respond to this book as soon as possible. Therefore, according to the existing

limitations, this research is responsible for examining the topics of the raised doubts and the mentioned claim.

The importance of the research is that creating doubts in the minds of believers in the Qur'an weakens the basis for its implementation so that the foundation of Islam faces a serious challenge. Additionally, the Qur'an is the main evidence for the authenticity of Islam and the final mission of the Prophets, and so doubting it will not leave a reason for leaning towards the final religion, i.e. Islam. So, although the problem of this research is partial, removing the doubt and solving the problem will be an important step in the direction of defending final religion. This article aims to clarify the opinions of the author of the book of "Criticism of the Qur'an" on this subject (the superstition of the scientific data of the Holy Qur'an) based on what evidences and whether these evidences prove his claim or not?

٢. Research Background

Criticism of the Holy Qur'an is a subject that goes back to the beginning of Islam.^١ From the first lunar century until now, books criticizing the Qur'an and books in response to them have been written. Regarding the answer to the doubts of Soha's Qur'an criticism book, Ayatollah Makarem Shirazi in the book of "New Conspiracy" (٢٠١٥), Mohammad Ali Rezaei Isfahani in the book of "Examination of the Basics of the Qur'an Criticism Book" (٢٠١٦), Mohammad Baqer Heydari-Nasab in the book of "Defending the Qur'an in Rejection of the Qur'an Criticism Book" and Abad al-Rahman's group (one of the Sunni brothers) in the book of "Detecting plot and denying accusation regarding the book Criticism of the Qur'an." published texts and books.

١. "This book was revealed by the knowledge of God." (Hūd: ١٤).

According to this research, those theses written to answer to the doubts of Soha's opinions are as follows: "Examination of the doubts related to attributing the oppression to God in the Holy Qur'an," "Examination of the illusory doubts of the Qur'anic classical system," "Criticism of suspicions regarding some literary problems in the Qur'an (based on Dr. Soha's book)," "Criticism of suspicions regarding the political and governmental teachings of the Qur'an and the Prophet's (PBUH) traditions," "Answer to the doubts about the Prophet's desire for violence (PBUH) in the Holy Qur'an" and "Critical review of Dr. Soha's opinions on the subject of medical doubts in the Qur'an, focusing on the book of Qur'an Criticism." Despite the above researches, no research has been done on the doubts discussed here, so that the review of the past studies shows that this research is new.

This research, which is a critique of the text-based activity, was carried out with a critical attitude and based on library documents on the verses of the Holy Qur'an, and reference books in the field of related sciences, paying attention to the discussed vocabulary and certain findings of natural sciences. In response to doubts, first the text of the doubt is given from the book of Qur'an Criticism, and then the necessary answer is presented.

٣. Critical Review of Superstition Based on Some Alleged Evidence

The investigation of Soha's claim regarding the superstition of the scientific data of the Holy Qur'an will be explained and criticized by examining the examples presented by him in the second chapter of his book (Scientific Errors of the Qur'an). Therefore, it is sufficient to mention

relevant evidences and their criticism below. After examining these doubts, the various gaps in the relation between the scientific propositions of the Holy Qur'an and the scientific opinions of the ancient world and old superstitions are determined, and then the necessary conclusions are drawn.

٣-١. The first example (the sky is the roof)

After mentioning verses ٣٢ of Surah Al-'Anbiyā' (And we made the sky protected) and ٩ of Surah Al-Saba', he considered it as the belief of primitive people, saying:

"In this verse, the sky is imagined as a roof that can be cut off and hit on the heads of sinful people. This is wrong because there is no ceiling beyond the earth. The world is a collection of spheres, systems and galaxies. The blue sky that comes to our eyes is a beautiful blue color that results from the density of the air around the earth. This statement of the Qur'an is the wrong opinion of primitive man who thought that the sky is a transparent object above our heads." (Soha, ٢٠١٣: ٦٥).

Review

The word "Al-Samā'" which is used many times in the Holy Qur'an, comes from the root "Sumuw" which means height. In addition to the sky in Arabic, the rain, the roof of the house, the back of the horse (Ibn Fāris, ١٣٩٩, ٣: ٩٨) and even the plant - because it is higher than the ground - (Rāghib Esfahānī, ١٣٣٢: ٢٤٣) have also been called Samā'. In fact, "Samā'" means something above another thing and surrounding it (Mustafawī, ١٣٦٨, ٢١٩: ٥). Therefore, what is in the sky above us - such as space, stars, globes, meteors, etc. - are examples of the word "sky". Therefore, first of all, it should be determined

١. وَجَعَلْنَا السَّمَاءَ سَقْفًا مَّحْفُوظًا

٢. أَفَلَمْ يَرَوْا إِلَى مَا بَيْنَ أَيْدِيهِمْ وَمَا خَلْفَهُمْ مِنَ السَّمَاءِ وَالْأَرْضِ إِنَّ نَسْفًا نَحْسِبُ بِهِمُ الْأَرْضَ أَوْ نَسْقُطُ عَلَيْهِمْ كِسْفًا مِنَ السَّمَاءِ إِنَّ فِي ذَلِكَ لَآيَةً لِّكُلِّ عَبْدٍ مُنِيبٍ

which example of the word "Al-Samā'" is meant in the verse in question and whether the scientific facts confirm such an example or not? It should be noted that the reference in this research does not mean the exact matching of the Qur'an's commands with scientific findings. Rather, it is intended to prove that in the world of science, there are findings that scientifically confirm the content of the verse.

In the discussed verses, God has spoken of a heaven that is both protective (roofing) and protected (Qara'ati, ٢٠١٢, ٥: ٤٤٧). Now we examine the issue from a scientific point of view:

The space is filled with scattered rocks, which are the separated pieces of the minor planets of the solar system. A large number of these stones are pulled towards the earth by the force of gravity when they approach the earth. But the earth is surrounded by a thick air covering at a height of ١٠,٠٠٠ km from different layers (troposphere, stratosphere, mesosphere, ionosphere, thermosphere, exosphere), which is collectively called the atmosphere. This air cover, like an invulnerable shield, protects the earth from the bites of celestial stones that are a terrible threat to its inhabitants and makes life possible for them. For when these stones enter the air layers due to the high speed and extreme friction with the air particles, they become hot and flaming and are quickly destroyed. However, until now, pieces of these stones have hit the ground and left tremendous effects; For example, ٦٥ million years ago, the fall of a giant meteorite on the earth (near the city of Chicxulub in present-day Mexico) was the beginning of the extinction of the dinosaurs (Ross, ١٩٩٥, p: ٣٢). As a result, a piece of the sky falling on the earth is also correct. Also, the existence of a layer of the atmosphere called ozone protects the earth from harmful cosmic rays and like a shield (roof) prevents these rays from entering the earth's surface (Speight, ٢٠١٩, p: ٧٣). The existence of

such a feature in the atmosphere is so vital that life on earth would not be possible without it. In addition, the greenhouse effect of the earth's atmosphere, like the roof of a house, creates thermal balance. As if it did not exist, the air would be hot and burning during the day and cold and freezing at night (Hadjibiros, ٢٠١٤, p: ١٦٧). Of course, what keeps the atmosphere around the earth is the earth's gravity (Katz, ٢٠١٧, p: ٥٨٧). That is, if there was no gravity, the air that covers the earth would not stay around the earth. As a result, the earth's atmosphere, in addition to having protective properties, is also preserved by the earth's gravity. In fact, the words of the Holy Qur'an about the protected sky, which is like a roof, protects the earth, is completely consistent with modern scientific facts.

It is worth mentioning that according to the mentioned reasons, in many reliable scientific books in the world, when scientists want to talk about the importance and properties of the earth's atmosphere, they interpret it as "ceiling". For example, in the book "Proceedings" published by the Royal Institute of England, in the section of the Earth's atmosphere (volume ١١), it is stated: "The fact is that if we do not think of a roof above our heads, because it is very transparent and colorless to It seems" (Royal Institution of Great Britain, ١٨٨٧, vol: ١١, p: ٢٦٥). Kenneth Austin Dill (an American biophysicist and chemist) says in his book "Molecular Driving Forces": "The Earth's atmosphere acts like a glass roof on a greenhouse" (Dill & Bromberg, ٢٠١٠, p: ٤٢). Stanley Manahan (Colombian chemist) writes in his book "Environmental Science and Technology:" "Earth's atmosphere is like the roof of a house." If the roof is damaged, the condition of the rest of the house is like the roof of the house" (Manahan, ٢٠٠٦, p: ٢٤٥). Peter Hoggs also says in the book "Introduction to the

Environmental Physics of Planet Earth, Life and Climate": "Of course, there is no glass ceiling on Earth, but the molecules in the Earth's atmosphere act in a similar way. (Hughes & Mason, ٢٠٠١, p: ٢٢٨). Now the question is, are the opinions recorded in these authoritative scientific sources in the world also ancient superstitions and the wrong opinion of primitive man?!

٢-٣. The second example (pillars supporting the sky)

After the aforementioned critique, Soha has claimed as follows:

"Now the question arises, what factor keeps the roof of the sky high? The Qur'an answers like this: "Lo! Allah graspeth the heavens and the earth that they deviate not, and if they were to deviate there is not one that could grasp them after Him." (Fātir: ٤١). This misconception also exists in very ancient human legends, for example, in Taoism it is said that Pangu separated the earth and the sky and stood between the earth and the sky and raised the sky. Muhammad's idea, like any other uninformed person, was that both heaven and earth must fall, and the simplest answer of a religious person is that God will keep them... In the verse below (also), the Qur'an says that the sky's keeping is connected to the pillar: "He created the heavens without any pillars that you can see" (that is, the heavens have invisible supporting pillars that you do not see) (Luqmān: ١٠). Muhammad thought that the heavens are heavy roofs that are supported by invisible pillars so that they do not fall to the ground... Some people who want to make a miracle for the Qur'an at any cost have said that the invisible pillars mean the force of gravity. But the force of gravity works against the pillar, because the pillar opposes the force of gravity. Therefore, the pillar cannot be the force of gravity" (Ibid: ٧٥).

Review

The word "tazūlā" from the word "z-w-l" means to be destroyed (Ibn Manzoor, ١٤١٤, ١١: ٣١٣) and something to deviate from its place (Ibn Fāris, ٢٠٠٩, ٣٨: ٣). Therefore, its translation as "falling" (as Soha gave in the translation of the verse) is not correct. In fact, the meaning of the verse is as follows:

"God preserves the heavens and the earth so that they do not decay (do not perish or deviate from their place) and if they tend to decay, no one but Him can preserve them."

Now we compare the content of this verse with the Chinese legend of Pangu, stating:

"In the beginning, there was nothing, and the universe was formless in its original state. This initial state turned into a cosmic egg for about ١٨,٠٠٠ years. Within it, the opposing principles of yin and yang were balanced and Pango hatched (or awoke). Pangu started the creation of the world. By swinging his giant ax, he separated yin from yang, creating earth (cloudy yin) and sky (clear yang). To keep them apart, Pangu stood between them and raised the sky" (Guru, ٢٠١٥, p: ١٣٣ & Míng, ٢٠١٣, p: ٤).

Accordingly, there is no similarity between the true meaning of the verse and the legend claimed by Soha (Pango). Now let's examine the content of the verse from a scientific point of view:

In ١٦٨٧, Isaac Newton, who had completed his studies on gravity and how the planets move, wrote the book "Mathematical Principles of Natural Philosophy" and proposed the concept of general gravity. Newton calculated that the strength of the gravitational force between two bodies depends on the mass of those two bodies and the distance between their centers.

$$F = \frac{G m_1 m_2}{r^2}$$

This explanation was accepted by physics until Albert Einstein presented the concept of "general relativity" in ١٩١٦. General relativity is a geometric theory for gravity and the current description of gravity in modern physics (Strickland, ٢٠١١, p. ٨١). In general relativity, gravity is no longer a force, but the result of the curvature of space-time, and every object causes the space around it to curve (Petersen, ٢٠١٢, p:٢). For a better explanation, space-time can be thought of as a rubbery and elastic sheet in which massive objects create a depression (Reiss, ٢٠٠٨: ٤٩). For example, if someone puts a heavy ball on this screen, it will cause a dent in the screen. That is, the presence of matter changes the geometric form of the page. This geometric curve is interpreted as gravity, which causes smaller and lighter objects to move towards the heavier mass. Gravity exists everywhere in the universe and is the most important force that affects everything in space. Also, there is no such thing as zero gravity in space. In other words, nobody is suspended in space, as Soha says.^١ Gravity is everywhere in the world and manifests itself in black holes, celestial orbits, etc. (Akusobi, ٢٠١٠). If there was no gravity, inertia (the tendency of the body to maintain its current position) would cause the heavenly bodies and planets to move in a straight path and move away from each other or collide with each other. But the planets follow a curved path as a result of the combination of gravity and inertia (figure below).

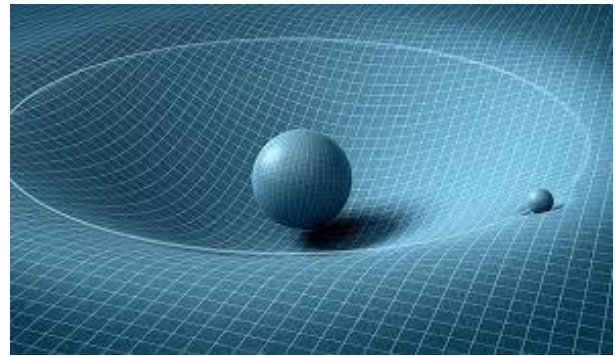


Figure ٣-١: An explanation of the concept of space-time curvature (gravity in modern physics)

Now, if the force of attraction and repulsion (centrifuge) between two objects is equal, neither less nor more, in this case the balance of the two forces of attraction and repulsion will keep them fixed in a specific path (that is, the orbit where they move). It is, just as the earth moves in a certain orbit around the sun. But the thing worth mentioning about the sun is that every second ٦٠٠ million tons of hydrogen is converted into about ٥٩٦ million tons of helium as a result of nuclear fusion, and this means that every second more than ٤ million tons of mass in the sun is converted into energy (Inglis, ٢٠٠٧, p: ٩٠ & Feinstein, ٢٠٠٥, p: ١٨). It means that about three hundred and fifty thousand million tons are lost daily, and about one hundred and thirty million tons are lost from the weight of the sun every year.^٢ Basically, reducing the mass of the sun should also reduce its gravitational force. When the sun's gravitational force decreases, the earth must be removed from the sun's gravitational field, or at least the earth's orbit should change around the sun. But we see that such changes have not taken place. This is the same truth that God has mentioned in verse ٤١ of Surah Al-Fātir. Of course, God accomplishes

^١. Astronauts feel suspended because on the one hand their space shuttle is being pulled by the earth's gravity and on the other hand, it is moving at a speed of about ١٨,٠٠٠ kilometers per hour and if it does not have enough speed, it will fall towards the earth.

^٢. Of course, the weight of the earth also decreases by ٥٠ thousand tons per year. But this amount, even taking into account the ratio of the mass of the sun to the earth (about ٣٣٠,٠٠٠ times), is much less compared to the decrease in the weight of the sun.

His will with causes and means.¹ Therefore, in addition to the force of attraction and repulsion (centrifuge), probably other forces and factors should also play a role in this issue (keeping heavenly bodies in their own orbit). For this purpose, in verse ١٠ of Surah Luqmān, the Holy Qur'an uses the word "'Amad" (on the weight of the moon), which is plural, which shows that more than one factor is involved in this matter. "'Amad" is the plural of "'Amūd" or "'Emād" from the noun "'Emād" which means stability in something (Ibn Fāris, ١٣٩٩, ٤: ١٣٧) and "Emād" or "mūd" is something which causes the consistency and stability of something else – whether be material or spiritual - (Ibn Manzoor, ١٤١٤, ٣: ٣٠٣). Therefore, the spine, which causes the stability of the body (ibid.: ٣٠٤), and the prayer, which maintains the religion, are also called "Amūd."² If none of them have an appearance similar to the pillar of the house (which makes the roof stable), but the similarity of all of them is in their foundation and maintenance.

Anyway, the Holy Qur'an mentions these sustaining and maintaining factors as "'amad" and since they cannot be seen with the eyes, it says: "without pillars you can see". Therefore, if some people have said, "It means the invisible pillars of gravity", based on the meaning of the verse, criticism is on their view, which, of course, has nothing to do with the Holy Qur'an.

٣-٣. The third example (seven heavens)

Soha says the following about the verses of the Holy Qur'an in which the seven heavens are mentioned:

"It is clear that the seven heavens are consistent with the Ptolemaic theory prevalent at the time of Muhammad. In addition to Ptolemy's theory, which was partly based on observations,

there were legends mixed with religion about the seven heavens before Muhammad. For example, in the Hindu religion there are seven upper worlds (sky) and seven lower worlds. Also, in ancient Egypt, the existence of seven heavens was accepted. It seems that Muhammad took some things from the environment and added some things himself" (Soha, ٢٠١٣: ٨٤).

Review

Ptolemy was the last outstanding Greek astronomer, and the book "Al-Majesti" has been left from him, which is the most important and comprehensive book on Greek astronomy. The contents of this book prevailed all over the world until the ١٦th century AD (the rise of Copernicus) until Copernicus overthrew the Ptolemaic system. According to the Ptolemaic theory, the earth was in the center and there were eight spherical heavens that revolved one above the other around the stationary earth (Dahneke, ٢٠٠٦, p. ١٠٥ & Beding, ٢٠١٦, vol. ١, p. ٢٤٩). Therefore, contrary to Soha's claim, there was no mention of seven heavens in the Ptolemaic model.

As for Soha's claim that there are "legends mixed with religion about the seven heavens", it should be said that the belief in the existence of the seven heavens is one of the oldest beliefs in human history, originating from monotheistic and divine religions, not the other way around. In the "creation story" section of the Torah, it's talking about the heavens, not a sky (Genesis, ١:١). In this regard, the American writer, James Hawkes, writes in his "Dictionary of the Bible": "Jewish rabbis call the heavens seven" (Hawkes, ١٩٢٨: ٦٣). This belief of the Jewish rabbis is derived from the teachings of the Talmud (Jewish oral tradition) in which the names of these seven heavens are mentioned as follows:

١. Hadith: أَبِي اللَّهِ أَنْ يَجْرِيَ الْأُمُورَ إِلَّا بِأَسْبَابِهَا فَجَعَلَ لِكُلِّ شَيْءٍ سَبَبًا

٢. Hadith: الصَّلَاةُ عَمُودُ الدِّينِ

"Volun, Rakhiyya, Shehakhim, Zebul, Maon, Makhon and Arabot" (Jones, ٢٠١١, p. ٨٢). Also, in verse ١٥ of Surah Nuh, the Holy Qur'an says to the disbelievers from the words of Noah (as): "Do you not know how God created the seven heavens in layers?" As a result, the issue of the seven heavens was discussed even before the birth of Judaism and Christianity, and it had its roots in the revelation and teachings of divine prophets, and in fact, from there, it entered the mythology of other nations. Even some Western researchers such as Joseph Kotersky (American philosopher and writer) believe that the Ptolemaic model was universally accepted without serious question, for it is easily compatible with the Bible. It is also probably derived from the teachings of the Bible (Koterski, ٢٠١١, p. ١٤٤). Now, it should be seen whether the seven corresponding heavens, each of which has its own characteristics (Fussilat: ١٢), is scientifically valid in the outside world as well or not?^١ Therefore, we examine this issue from a scientific point of view:

When we gradually go up from the surface of the earth, we will face the atmospheric classification according to elevation. In other words, the atmosphere around the earth can be divided into the following layers according to certain characteristics such as temperature trends, density differences, pressure changes, gas interference, and electrical characteristics:

١. Troposphere: The lower layer of the earth's atmosphere, whose height is about ٧ to ٨ km at the poles and about ١٦ to ١٨ km at the equator. Many clouds and weather systems are located in this layer, and with increasing altitude, temperature and air pressure decrease.

٢. Stratosphere: It is located on the troposphere and its average thickness is about ٢٣

km. In the first ٢ km of the stratosphere, the air temperature is constant, but in the higher parts, the air temperature also increases with the increase in altitude. The ozone layer, which has a protective effect, is also placed in this layer.

٣. Mesosphere layer: It is located up to a height of about ٨٠ to ٨٥ km from the earth's surface and in it, the air temperature decreases with the increase in height. About ٥٠ tons of meteorites evaporate in the mesosphere every day.

٤. Thermosphere layer: It is located up to a height of about ٦٠٠ to ٦٤٠ km from the earth's surface and in it, the temperature increases with the increase in height. This temperature may reach ١٥٠٠ Kelvin, the main source of which is the ionization of oxygen and nitrogen molecules due to exposure to the ultraviolet rays of the sun. Most of the X-ray and ultraviolet rays are absorbed in this layer.

٥. Ionosphere layer (Ionosphere): It is located up to a height of approximately ١٠٠٠ kilometers and the process of ionization of gas molecules takes place in it. The ionosphere plays a major role in the propagation of electromagnetic waves and has important effects on telecommunications.

٦. Exosphere layer: the highest layer of the atmosphere and is located up to a height of about ١٠,٠٠٠ km from the earth's surface, after which the outer space begins. The main components of this layer are hydrogen and helium, which have a low density (Jarumayan & Sadili, ٢٠٠٣, p. ١١٤).

٧. Cosmic space (outer space): It is called the space outside the earth's atmosphere (outside the atmosphere) that starts after the earth's atmosphere and continues for billions of light years.

^١. It should be noted that the researchers of the article do not intend to apply the word seven heavens in the Qur'an to the earth's atmosphere and the cosmic space after that. Rather,

they only wanted to answer the question of whether this issue is scientifically valid in the outside world or not.

As seen, the layers of the earth's atmosphere are an obvious example for the corresponding sky, which is also completely known from a scientific point of view.

٣-٤. The fourth example (What was the sky like at the beginning of creation?)

Soha says the following in his criticism of verses ١١ and ١٢ of Surah Fussilat^١:

“In verse ١١, it is said that the heavens were smoke before they were formed. This is an obvious mistake, because according to the latest physics theory, the formation of the universe started with the Big Bang. That is, the world was initially a super-dense mass of energy, whereas smoke is a mixture of carbon monoxide, carbon dioxide and organic molecules composed of carbon and other molecules. Smoke is possible only after the formation of plants and organic materials such as oil and their burning, which have only existed on earth for less than one billion years. That is, about ١٣ billion years after the Big Bang and more than ٥ billion years after the creation of the solar system. But where did this idea come from? We cannot say with certainty, but we know that since thousands of years before Muhammad, the idea of the origin of the world from a formless primary substance (chaos) was discussed in different civilizations, for example, in ancient Greece, ancient Egypt, ancient China, and other ancient civilizations.” (Soha, ١٣٩٣: ١١٢-١١٤).

Review

"Dukhān" includes the smoke that rises from the fire and everything that resembles smoke, such as water vapor (Ibn Fāris, ٢٠١٩, ٢: ٣٣٦; Ibn Taymīyah, ١٤٠٦, ٢: ٧٦).

As Soha himself has pointed out, in the mentioned verses, smoke is mentioned; Not formless primal matter. Therefore, there is no connection between these verses and the mentioned ancient idea.

However, in criticizing Soha's claim, it should be said that in verses ٩ and ١٠ of Surah Al-Fussilat (i.e., ٢ verses before the discussed verses), there is a talk about the creation of the earth, forgery and the determination of powers by God, and after that he says: “Then He looked at the sky which was smoke.” In other words, this verse does not talk about the heavens before they were formed. Rather, according to verses ٢٧ to ٣٠ of Surah Al-Nāzi'āt^٢, heaven was created before the earth was prepared for life. This sky, after the forgery of Rawāsī and the determination of aqwāt, was in the form of smoke, which God dealt with and made it into seven (see Pahlavan & Rezaei, ٢٠١٩: ٩-٢٩). Now we examine this issue from a scientific point of view:

The atmosphere that the planet Earth has today is completely different from the early atmosphere. In the early stages, this planet was attacked by many meteorites and asteroids, and some of them contained a huge amount of ice. When the earth became cold about ٢,٤ billion years ago, due to the release of gases inside the earth and water vapor that was obtained from the collision of meteorites with the earth's surface, huge amounts of water vapor, carbon monoxide, di Carbon monoxide and ammonia were injected into the atmosphere (smoke means smoke-like gases) (Kusky & Cullen, ٢٠١٠, P: ٤٩١ & Cain, ٢٠١٥). Water vapor saturated the air so much that the atmospheric pressure was many times higher than today. Also, the concentration of some gases reached several hundred times the

١. ثُمَّ اسْتَوَىٰ إِلَى السَّمَاءِ وَهِيَ دُخَانٌ فَقَالَ لَهَا وَلِلْأَرْضِ ائْتِيَا طَوْعًا أَوْ كَرْهًا قَالَتَا أَتَيْنَا طَائِعِينَ (١١) فَفَضَّنَاهُنَّ سَنَعِ سَمَاوَاتٍ فِي يَوْمَيْنِ وَأَوْحَىٰ فِي كُلِّ سَمَاءٍ أَمْرَهَا

٢. أَلَمْ تَرَ أَنشَدُ خَلْقًا أَمْ السَّمَاءِ بِنَاهَا (٢٧) رَفَعَ سَمَكَهَا فَسَوَّاهَا (٢٨) وَأَعْطَشَ لَيْلَهَا وَأَخْرَجَ ضُحَاهَا (٢٩) وَالْأَرْضَ بَعْدَ ذَلِكَ دَحَاهَا (٣٠)

current level. For example, the early atmosphere contained ١٠٠ times the current level of carbon dioxide (Lang, ٢٠١٣, p: ٩٩ & Erickson & Kusky, ٢٠٠٩, p. ٥). But gradually carbon dioxide was converted into oxygen by bacteria. Oxygen reacted with ammonia and released nitrogen. The act of photosynthesis of plants also increased the level of oxygen significantly while the level of carbon dioxide decreased (Gregory et al, ٢٠٠٩, p. ٨٨). Also, the energy of the ultraviolet rays broke the water molecules and turned it into hydrogen and oxygen, which hydrogen (due to its lightness) was removed from the atmosphere and oxygen remained in the atmosphere. Therefore, an oxygen-rich atmosphere appeared on the earth, and in fact, the earth's atmosphere began to evolve when it contained oxygen. ٤٠٠ million years ago, the oxygen concentration reached ten percent of the current value and reached the current value about ٢٠٠ million years ago (Sumich & Morrissey, ٢٠٠٤, p. ٥). Oxygen caused the formation of the ozone layer, and as a result, the current atmosphere of the earth was formed about ٤٠٠ million years ago (Itteilag, ٢٠١٢, p. ٢٩ & Addams, ٢٠١٧) and became layered.

As seen, the existence of the smoky sky, which appeared after the preparation of the earth for life, has an objective and obvious example in the new scientific findings. Now, if some contemporary scholars or commentators have applied the word *Dukhān* in the verse to the primary material of the creation of the world, their claim is criticized, which of course has nothing to do with the Holy Qur'an.

٣-٥. The fifth example (the role of women in sperm formation)

Soha says:

"Nowhere in the Qur'an is the role of a woman in the fetus mentioned. This was also an old misconception that a child was only the result of a man's sperm. It should be noted that there are narrations about the water of men and women. If the mentioned narrations are correct, it seems that Muhammad noticed this error in the Qur'an and tried to correct it in the hadith" (Soha, ٢٠١٣: ٥٨).

Review

The Holy Qur'an says in verse ٢ of Surah Al-Insān: "We created man from a mixed sperm". The word "Amshāj" comes from the word "Mashaj" meaning mixed and blended (Ibn Manzūr, ١٤١٤, ٢: ٣٦٧). Almost all interpretations consider amshāj's sperm to be the result of the mixing of male and female sperm. Even the commentators of the beginning of Islam, in the interpretation of this verse, have mentioned the mixing of the sperm of a man and a woman (Albār, ١٤٠٥: ٢٠). The consensus in the interpretation of this verse is the result of hadiths that have been narrated from the Holy Prophet (PBUH) in several ways. For example, in response to a Jew who asked him about the creation of man, the Prophet (PBUH) said: "O Jew, from the whole is created: from the sperm of the man, and from the sperm of the woman - it is created from both, from the sperm of the man and from the woman's sperm" (Ibn Kathīr, ١٤١٩, ٥: ٤٠٨). But if "the birth of a child only from male sperm" is an old misconception - which is the case, and at the end of the ١٨th century, i.e. in ١٨٧٥, Hertwig proved for the first time that both sperm (male sperm) and ovule (female sperm) are effective in the formation of eggs (Albār, ١٤٠٥: ٢٠). The question is, first of all, where did the Prophet (PBUH) know this scientific fact and why did he easily ignore this fact in the words of the Prophet (PBUH) and even the Prophet He

accuses him of correcting his Qur'anic mistakes?! Secondly, if according to his claim, the Qur'an is the word of Muhammad and not God, he would not need to correct his mistake with hadith. Rather, he added another verse in the Qur'an to the same theme. Of course, Muslims read these words of the Prophet (PBUH) in their books while the opinion of the scholars of their era was wrong until the discovery of the truth. For example, after referring to these hadiths, Ibn Hajar Asqalānī (d. ٨٥٢ AH) writes about the beliefs of the doctors of his time: "Many anatomists thought that semen has no other effect except in conjugation of the sperm, and the embryo comes into existence as a result of the formation of menstrual blood. The hadiths that exist (from the Holy Prophet) in this regard reject these beliefs" (Ibn Hajar, ٢٠١٥, ١١): ٤٨٠).

٤. Conclusion

Based on the samples that were examined, the following results can be presented in the criticism of Soha's method regarding "connecting the scientific propositions of the Qur'an with superstitious beliefs and ancient scientific theories":

١. Since the revelation of the Holy Qur'an was based on divine knowledge (Hūd: ١٤) and was revealed to the secrets of the world by the All-Knowing Creator, the scientific topics and propositions raised in the Qur'an will not be incompatible with the evidence of natural sciences. The scientific propositions of the Holy Qur'an can be divided into two parts: Some of the scientific propositions expressed in the Holy Qur'an are clear and completely consistent with the facts proven in modern science (to see examples: see Kheirollahi & Rezaei, ٢٠١٨ and Maaref, ٢٠١٩). These propositions are examples of the scientific miracles of the Holy Qur'an. Another part of the scientific propositions stated in the Holy Qur'an, whose clarity of meaning is

less than the previous part due to reasons such as the existence of numerous examples (such as the word "Sama"), are not in conflict with any of the definite findings of modern science and even in confirmation. Some of their examples are scientific findings.

٢. In the examined examples, the relationship between superstitious beliefs and obsolete scientific theories of the ancient world with the scientific propositions of the Holy Qur'an does not fall outside of these four cases:

- There is no connection between them, and the only reason for relating them to each other is the biased view of the Qur'an critic (example of the primary constituent material).

- Communication between them is one-way. In the sense that some of these ancient theories are rooted in the revelation teachings of divine prophets, and if these things are stated in the Holy Qur'an, it is because of the revelation of this book (for example, the seven heavens).

- The connection between them is merely an apparent or accidental similarity, and the relation of influencing or being influenced is not mentioned in it, and since scientific findings support this type of scientific propositions of the Qur'an, the claim of the critic of the Qur'an is not included in this regard. As such, it cannot be claimed that these scientific findings are influenced by this group of ancient opinions (for example, the sky is like a ceiling).

- The relation between them is a reciprocal relationship and the Holy Qur'an has presented a theory contrary to the obsolete scientific theories of the ancient world and in agreement with modern scientific achievements (for example, the role of women in the formation of sperm).

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