

The Necessity of Interpreting the Qur'an According to Scientific Developments

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Abstract

This study does not focus on positive or negative views related to scientific tafsir; rather, it addresses the topic of reinterpreting the Qur'an based on scientific developments. In today's world, science is advancing at an astonishing rate, making it essential to interpret the verses according to scientific knowledge. While other books may lose their relevance over time, scientific advancements contribute to a more accurate understanding of the Qur'an. In other words, as time progresses, the Qur'an becomes more relevant and vibrant.

Keywords: Scientific tafsir, science, Quran, religious sciences, natural sciences, social sciences

Introduction

One of the different methods of interpreting the Qur'an is the scientific tafsir, which relies on the use of religious, social, and natural sciences in interpretation. While examples of scientific tafsir can be found in classical commentaries, this method has become more widespread mainly due to scientific developments experienced worldwide in the last few centuries. Currently, numerous researchers in different countries continue to conduct studies using the scientific tafsir method.¹

¹ Suat Yıldırım, "Kuran'ın İlmi Tefsiri Sempozyum Bildirisi", Journal of Quranic Studies and Modern Science, Volume 2, Issue 4, p. 52-60.

Numerous positive and negative works have been published regarding the scientific interpretation of the Qur'an.² In this article, we will not dwell on those opinions; instead, we will explain how scientific developments necessitate the scientific interpretation of the Qur'an, based on exemplary verses.

The dizzying advancements in scientific studies make the scientific interpretation of the Qur'an imperative. New studies conducted in both social and natural sciences require revisiting the verses with entirely new perspectives.³ As stated by Bediüzzaman, "As time gets older, the Qur'an gets younger," meaning each scientific development leads us to a better and more accurate understanding of the Qur'an. On the other hand, the erroneous interpretations based on the knowledge of past eras lose their value. Therefore, it is essential to reinterpret the Qur'an according to new scientific developments and in a correct manner.⁴

The universe is the manifestation of Allah's attribute of power, and the Qur'an is the manifestation of His attribute of speech. While Allah, in the universe, speaks through the language of entities and events, He speaks to us through the human language in the Qur'an. These two speeches are related to similar subjects. In other words, the Qur'an reads the universe in the mosque of creation.⁵ Below, we will focus on examples of verses that can be interpreted according to new scientific developments.

The Orbit of the Sun and the Moon

In the 38th verse of Surah Yasin, the word "mustakar" has been interpreted in previous commentaries as a fixed place, but in recent commentaries, in parallel with developments in

² Arslan Karaođlan, "Kuranı Anlamada Bilimler YöneliŖe Toplu Bir BakıŖ", *Route Educational and Social Science Journal*, Volume 4(6), October 2017, p. 367-391; Kutbettin Ekinci, "Bilimsel Tefsirin Tefsir Olma Sorunu", *Bilimname*, XXXVII, 2019/1, p. 169-190.

³ Mehmet Emin Ŗeker, "Kuran-ı Kerim İin Bilimsel Yorumun Gerekliđi" *Kelam AraŖtırmaları*, 12:2 (2014), SS. 315-334; Enver Bayram, "RAZİ'NİN TEFSİR-İ KEBİR'DE GÜNEŖ SİSTEMİ İLE İLGİLİ AYETLERİ YORUMLAMASI", *C. Ü. İlahiyat Fakültesi Dergisi* 2011, Cilt XV, Sayı 2 p: 211-234.

⁴ M. Lütfi Bozdođan, "The Possibility of Scientific Commentary of Qur'an", *Journal of Quranic Studies and Modern Science*, 2020, Volume 1, Issue 1, p. 1-8.

⁵ Abdullah Demir, "Science and The Quran as Two Sides of a Truth", *Journal of Quranic Studies and Modern Science*, 2020, Volume 1, Issue 1, p. 9-17.

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astronomy, it has been given the meaning of "orbit." Similarly, in the 40th verse of Surah Yasin, the word "felek" has been interpreted as "orbit" in new commentaries.

The Sun rotates around its axis and completes this rotation in approximately one month. Additionally, the Sun is moving towards the Vega Star at a speed of 20 km per second. The orbit that the Sun follows in astronomy is called the "solar apex." The verse conveys this reality: "The Sun moves (rotates) in its designated orbit." Similarly, in Surah Anbiya, verse 33, it is stated that the Sun and the Moon move in their orbits: "It is He who created the night and the day, the Sun and the Moon, each swimming in an orbit."

Transportation of Generations

In the 41st verse of Surah Yasin, the words "fulk'ul-meşhun" were previously interpreted as the ship of Prophet Nuh (Noah). However, contemporary commentators like Elmalılı Hamdi Yazır have given this verse the meaning of the transportation of humans in the mother's womb with their genetic codes.

Separation of the Heavens and the Earth

In the 30th verse of Surah Anbiya, it is mentioned that the heavens and the earth were once together and then separated: "Have those who disbelieve not considered that the heavens and the earth were once a joined entity, which We then parted? And We made from water every living thing. Then will they not believe?" This verse is consistent with the Big Bang theory, as the expression "We then parted" aligns with the concept of the universe's creation. Evidence such as the discovery of radiation remaining from the early stages of the universe supports the validity of this view.⁶

Expansion of the Universe

In verse 47 of Surah Az-Zariyat, the expansion of the universe is clearly expressed: "And the heaven We constructed with strength, and indeed, We are [its] expander." In 1929, American

⁶ Caner Taslaman, "Kurani-Bilimsel-Teoloji, Bilimsel-Kurani-Teoloji ve Kurani-Ahenksel-Teoloji: Astronomi ve Fizik Alanındaki Örneklerle", <http://www.canertaslaman.com>, 28.09.2022; Zeki Yıldırım, "ENBİYA, 30 EKSENİNDE EVRENİN OLUŞUMU", Atatük Üniversitesi İlahiyat Fakültesi Dergisi, Sayı: 39, Erzurum 2013, s. 47-76.

scientist Dr. Hubble first proposed the idea of the universe's expansion, and later, Belgian mathematician Lemaitre suggested that galaxies are moving away from each other, and space is expanding like a balloon. The measurement of the distance between galaxies is done using a unit called the Hubble constant.⁷

The Universe in its Gaseous Phase

In the 11th verse of Surah Fussilat, one of the stages of the universe's creation is referred to as the gaseous phase: "Then He directed Himself to the heaven while it was smoke and said to it and to the earth, 'Come [into being], willingly or by compulsion.' They said, 'We have come willingly.'" According to scientific data, the universe went through a gaseous phase mainly consisting of hydrogen and helium. Other atoms were formed through processes inside the stars resulting from the compression of these gases due to gravity.⁸

The Creation of Mountains

In Surah Al-Anbiya, verse 31, it is emphasized that mountains were placed on the earth to stabilize the continents. In modern times, geological research has proven that the moving continents are anchored by mountains. In Surah An-Naml, verse 88, it is mentioned that mountains move: "You will see the mountains, which you think are firmly fixed, passing by like clouds. It is the handiwork of Allah, who has created everything with great precision." The movement of mountains is caused by the shifting of the earth's crust on which they rest. The six major tectonic plates and numerous smaller plates that form the Earth's surface move at a rate of approximately 1 to 5 centimeters per year.

The Weight of Clouds

In Surah Ar-Rad, verse 12, the weight of clouds is mentioned: "It is He who shows you the lightning, striking fear and hope, and produces heavy clouds." Recent research has shown that

⁷ Yıldırım, Taslaman.

⁸ Taslaman.

clouds carry tons of water. For example, in cumulonimbus clouds, there can be up to 300,000 tons of water.

Creation of the Sky as a Protective Canopy

In Surah Al-Anbiya, verse 32, it is stated that the sky was created as a protective canopy: "And We made the sky a protected canopy." Modern scientific studies have shown that the atmospheric layers surround the Earth like a protective canopy, preventing harmful radiation and meteoroids from reaching the Earth, among other benefits.

Everything Created in Pairs

In Surah Az-Zariyat, verse 49, it is mentioned that everything is created in pairs: "And of all things, We created two mates; perhaps you will remember." In the micro-world, it has been discovered that particles inside atoms are created in pairs. The famous physicist Paul Dirac received the Nobel Prize in Physics in 1933 for his work related to this topic. Subatomic particles such as electron-positron, proton-antiproton, neutron-antineutron, and others exist in pairs.⁹

Creation of the Heavens and the Earth in Six Stages

In Surah Al-A'raf, verse 54, it is stated that the heavens and the earth were created in six stages: "Indeed, your Lord is Allah, who created the heavens and the earth in six days and then established Himself above the Throne. He covers the night with the day, [another night] chasing it rapidly; and [He created] the sun, the moon, and the stars, subjected by His command. Unquestionably, His is the creation and the command; blessed is Allah, Lord of the worlds." The word "yevm" used in this verse refers to long periods of time and indicates the six stages of creation of the heavens and the earth.¹⁰

⁹ Taslaman.

¹⁰ Hasan Haliloğlu, Kübra Nur Başaran, (2020), "Kâinatın Yaratılışı ve Yok Oluşu (Tefsirler ve Modern Bilim Işığında)", Ağrı İslâmi İlimler Dergisi (AGİİD), Haziran 2021 (8), s.20-51 Bayram.

Black Holes

In Surah At-Tariq, verses 1-3, the stars mentioned are considered by some scientists to be black holes: "By the sky and the night comer! And what can make you know what is the night comer? It is the piercing star." Some researchers, like Mustafa Mlivo, have suggested that the term "tarik" in these verses may refer to black holes or pulsars. The term "tarik" denotes passengers striking their feet on the ground, and this could represent pulsars emitting regular pulses of radiation. The meaning of the "piercing star" in the third verse is also consistent with the powerful radiation and X-rays emitted by pulsars.¹¹

The Expansion of the Universe

In Surah Adh-Dhariyat, verse 47, it is mentioned that the heavens are being expanded: "And the heaven We constructed with strength, and indeed, We are [its] expander." This statement aligns with astronomical research showing the continuous expansion of the universe.

Two Seas Meeting Without Mixing

In Surah Al-Furqan, verse 53, a miraculous situation of two seas meeting without mixing is described: "And it is He who has released [simultaneously] the two seas, one fresh and sweet and one salty and bitter, and He placed between them a barrier and prohibiting partition." Research has shown that the waters of the Mediterranean Sea and the Atlantic Ocean do not mix and are separated by a barrier. Similarly, the waters of the Gulf of Aden and the Red Sea also do not mix.¹²

The Descent of Iron from the Sky

In Surah Al-Hadid, verse 25, it is stated that iron was sent down from the sky: "And We sent down iron, wherein is great military might and benefits for the people." Scientific research has shown

¹¹ Sami Çalışkan, "Kuran-ı Kerim'e Göre Yıldızlar," Yüksek Lisans Tezi, Fırat Üniversitesi Sosyal Bilimler Enstitüsü, Elazığ, 2013, s. 32; Taslaman.

¹² Yıldırım.

that iron ore came to the Solar System and the Earth from outer space. The surface temperature of the Sun, which is 6000 degrees Celsius, and the core temperature, which is 20 million degrees Celsius, are not sufficient for the formation of iron. Iron can only be formed in much larger stars than the Sun and at temperatures reaching several hundred million degrees. When the iron content in these stars, known as novae or supernovas, exceeds a certain threshold, the star cannot bear it and explodes, scattering iron into space. As seen, iron ore came to the Solar System and the Earth through the explosion of supernovas, as mentioned in the verse.

Male and Female in Plants

In Surah Ta-Ha, verse 53, it is stated that pairs of male and female plants were created: "We sent down from the sky blessed water, whereby We caused gardens and grains to grow, and palm trees with hanging clusters of dates, and dense vineyards, and olives, and pomegranates, similar to one another and yet so different. Behold their fruits as they grow and ripen. Surely, in these are signs for those who believe." In Surah Ar-Ra'd, verse 3, it is mentioned that all fruits were created in pairs: "And of all fruits, He placed (on the earth) two pairs." With the advancement of botany, it has been understood that plants have male and female reproductive cells. Through wind and various animals, pollen containing male reproductive cells is transported from one flower to another, fertilizing the female organ and forming seeds.

The Three Dark Stages of the Fetus in the Womb

In Surah Az-Zumar, verse 6, it is stated that the fetus is created in three dark stages in the womb: "He creates you in the wombs of your mothers, creation after creation, within three darknesses." Modern biology shows that the development of the fetus in the womb occurs in three stages of darkness: the darkness of the abdominal wall, the darkness of the uterine wall, and the darkness of the amniotic membrane.

The Stages of the Fetus in the Womb are Explained

In Surah Al-Muminun, verses 13-14, the stages of the fetus in the womb are explained: "And then We created the drop into a clinging clot, and We created the clot into a lump; and We created the lump into bones, and We covered the bones with flesh; then We developed it into another creation.

So blessed is Allah, the best of creators." The verse indicates that bones are created before muscles. In the medieval ages, it was believed that muscles were formed before bones. Embryological studies have proven that bones are indeed formed before muscles, in accordance with this verse.¹³

Flattening of the Earth's Poles

In Surah Ar-Ra'd, verse 41, it is mentioned that the ends of the earth are reduced: "Do they not see that We are advancing in the land, diminishing it from its borders?" It has been newly discovered that a rotating sphere will flatten at its poles over time. According to NASA's data, the equatorial radius of the Earth is 6378.5 km, while at the poles, it is 6357 km. The use of the word "diminishing" in the verse indicates that the process of reducing the Earth's poles is ongoing.¹⁴

Wind as Pollinators

In Surah Al-Hijr, verse 22, the task of winds as pollinators is clearly mentioned: "And We sent the fertilizing winds." Winds carry plant pollen for fertilization. In addition, winds carry clouds for rainfall. The foaming on the seas and other waters creates air bubbles known as aerosols. These aerosols, when mixed with dust carried by the winds from the land, rise into the upper layers of the atmosphere. These particles, carried by the winds, combine with water vapor, and water vapor condenses around these particles. Without these particles, water vapor cannot form clouds. Cloud formation occurs through the wind's pollination of water vapor with the particles it carries.¹⁵

Continuation of Hearing in Sleep

In Surah Al-Kahf, verse 11, it is indirectly mentioned that the ears of the people of the cave continued to hear in their sleep: "So We caused them to be discovered, that they might know that the promise of Allah is true, and that of the Hour there is no doubt. [That was] when they disputed among themselves about their affair and [then] said, 'Construct over them a structure. Their Lord

¹³ Yıldırım.

¹⁴ Muhammet Yılmaz, "“YERYÜZÜNÜN ETRAFINDAN EKSİLTİLMESİ”: RA‘D SÛRESİ 41. ÂYET ÜZERİNE BİR İNCELEME", akarya Üniversitesi İlahiyat Fakültesi Dergisi, Cilt: XV, Sayı: 28 (2013/2).

¹⁵ Ahmet Vefa Temel, "KUR'ÂN'DAKİ METEOROLOJİK KAVRAMLARIN DEĞERLENDİRİLMESİ", Diyanet İlmî Dergi 57 (2021): 75-104.

is most knowing about them.' Said those who prevailed in the matter, 'We will surely take [for ourselves] over them a masjid.'" In this verse, it is not stated that they were put to sleep, but rather it is mentioned that their ears were sealed. The Arabic verb "daraba," meaning "to strike," is also used to indicate the prevention of hearing in Arabic. The ear is the only active sense organ during sleep. The hearing ability of the People of the Cave was closed off to prevent them from waking up due to external noises.

Relativity of Time

In Surah As-Sajda, verse 5, the relativity of time is clearly expressed: "He arranges [each] matter from the heaven to the earth; then it will ascend to Him in a Day, the extent of which is a thousand years of those which you count." In Surah Al-Ma'arij, verse 5, a similar situation is mentioned: "The angels and the Spirit will ascend to Him during a Day the extent of which is fifty thousand years." These verses clearly indicate the relativity of time. A project initiated by NASA in 1959 has proven that the fabric of space is indeed flexible and moving.¹⁶

Conclusion

As seen in the examples above, scientific developments necessitate the reinterpretation of the Quran in their respective fields. Scientific studies are rapidly advancing with research conducted in different countries around the world. Commentators and researchers in their respective fields need to interpret the verses in light of scientific developments. Collaborative work between theologians and scientists is likely to produce very original interpretations. On the other hand, it is also possible to conduct scientific research based on the signs in the Quran. This way, the criticism that only scientific developments determine the interpretation of the verses, rather than conducting scientific studies based on the verses, can be avoided.

¹⁶ http://www.nasa.gov/pdf/168808main_gp-b_pfar_cvr-pref-execsum.pdf

References

- Bayram, Enver “RAZİ’NİN TEFSİR-İ KEBİR’DE GÜNEŞ SİSTEMİ İLE İLGİLİ AYETLERİ YORUMLAMASI”, C. Ü. İlahiyat Fakültesi Dergisi 2011, Cilt: XV, Sayı: 2 Sayfa: 211-234.
- Bozdoğan, M. Lütfi „The Possibility of Scientific Commentary of Qur’an”, Journal of Quranic Studies and Modern Science, 2020, Volume 1, Issue 1, p. 1-8.
- Çalışkan, Sami “Kuran-ı Kerim’e Göre Yıldızlar”, Yüksek Lisans Tezi, Fırat Üniversitesi Sosyal Bilimler Enstitüsü, Elazığ, 2013, s. 32.
- Demir, Abdullah “Science and The Quran as Two Sides of a Truth”, Journal of Quranic Studies and Modern Science, 2020, Volume 1, Issue 1, p. 9-17.
- Ekinci, Kutbettin “Bilimsel Tefsirin Tefsir Olma Sorunu”, Bilimname, XXXVII, 2019/1, p. 169-190.
- Haliloğlu, Hasan Kübra Nur Başaran, (2020), “Kâinatın Yaratılışı ve Yok Oluşu (Tefsirler ve Modern Bilim Işığında)”, Ağrı İslâmi İlimler Dergisi (AGİİD), Haziran 2021 (8), s.20-51.
http://www.nasa.gov/pdf/168808main_gp-b_pfar_cvr-pref-execsum.pdf
- Karaoğlu, Arslan “Kuranı Anlamada Bilimler Yönelişi Toplu Bir Bakış”, Route Educational and Social Science Journal, Volume 4(6), October 2017, p. 367-39.
- Mehmet Emin Şeker, “Kuran-ı Kerim İçin Bilimsel Yorumun Gerekliliği“ Kalam Araştırmaları, 12:2 (2014), SS. 315-334.
- Taslaman, Caner “Kurani-Bilimsel-Teoloji, Bilimsel-Kurani-Teoloji ve Kurani-Ahenksel-Teoloji: Astronomi ve Fizik Alanındaki Örneklerle”, <http://www.canertaslaman.com>, 28.09.2022.
- Temel, Ahmet Vefa “KUR’ÂN’DAKİ METEOROLOJİK KAVRAMLARIN DEĞERLENDİRİLMESİ”, Diyanet İlmî Dergi 57 (2021): 75-104.
- Yıldırım, Suat “Kuran’ın İlmi Tefsiri Sempozyum Bildirisi”, Journal of Quranic Studies and Modern Science, Volume 2, Issue 4, p. 52-60.
- Yıldırım, Zeki “ENBİYA, 30 EKSENİNDE EVRENİN OLUŞUMU”, Atatürk Üniversitesi İlahiyat Fakültesi Dergisi, Sayı: 39, Erzurum 2013, s. 47-76.
- Yılmaz, Muhammet ““YERYÜZÜNÜN ETRAFINDAN EKSİLTİLMESİ”: RA‘D SÜRESİ 41. ÂYET ÜZERİNE BİR İNCELEME”, akarya Üniversitesi İlahiyat Fakültesi Dergisi, Cilt: XV, Sayı: 28 (2013/2).