

Study of Cosmology and Basic Implications for Islamic Education (Study of Qs Al-Mulk: 3-4 and Qs Al-Furqan: 2)

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Abstract

This study examines cosmology in the Qur'an, focusing on verses 3-4 of Surah Al-Mulk and verse 2 of Surah Al-Furqan. This study is library research. Data sources are obtained by reviewing books, articles, journals, theses, and dissertations related to this study. The main objective is to analyze the basic implications of understanding cosmology in the Qur'an in Islamic education.

Keywords: Cosmology, Education, Islam

Introduction

According to Jalaluddin Rumi, Cosmology is that Allah SWT created this universe as a mirror of himself because all of this creation is nothing but *tajalli*, its manifestation. So, Allah SWT, previously a hidden secret treasury, manifested, appeared, and appeared in his creation. Therefore, sometimes his creation is called *Mazhar* (appearance), a place where Allah SWT appears whose inner self is secret. Nature is a medium to know Allah SWT, without nature it seems complicated to know him.

The Qur'an, although not a scientific encyclopedia that presents various theories of knowledge, generally contains all natural phenomena that can be traced by scientific research. The complexity of the discussion of the Qur'an makes it a prototype of all books that symbolize knowledge, one of which is the universe. The universe, often called the universe or universe, can generally be understood as a microcosm along with all that is available in it and the various regularities and stabilities that occur in its continuity.

The universe is a manifestation and actualization of the greatness and love of Allah SWT, with all kinds of dialectics of elements, powers, and laws of the universe, indicating spiritual messages to humans. The repetition of the holy Qur'an regarding the wording is related to the recommendation to observe and think about the universe, which contains a spirit to explain the nobility of a higher reality.

Allah has shown human events, humans, and this universe as proof of His greatness. The philosopher Ibn Sina places the human soul at the highest level, apart from being the basis for thinking, it also has the powers found in the souls of plants and animals, the human soul is not destroyed by the destruction of the body, while the souls of plants and animals that exist in humans will be destroyed with the death of the body and it will not be revived in the afterlife.

In the Qur'an, there are about 1,300 verses that talk about the universe and the creation of man. This number is equivalent to one-sixth of the total verses of the Qur'an. (Thayyarah 2014) All of these verses are part of the evidence of His greatness, which directs us as His creatures to be able to think, reflect, and learn lessons. This is in line with several verses that, after explaining His greatness, are usually followed by a command to reflect, think, and think. As found in QS al-Baqarah [2]: 164

"Indeed, in the creation of the heavens and the earth, and the alternation of night and day, and the ships that sail on the sea carrying what is useful for humans, and what Allah sends down from the sky of water, then with it He revives the earth after its death (dryness) and He spreads therein all kinds of animals, and the turning of the winds and the clouds that are controlled between the heavens and the earth; indeed (there are) signs (of the oneness and greatness of Allah) for a people who give thought"

One of the scientific disciplines that discusses the universe is cosmology. Cosmology comes from the Greek *kosmos* (universe) and *logos* (science). Cosmology is a science that investigates the origin, structure, and relationship between space and time in the universe, the science of the origin of the earth, its ties to the solar system, the universe, and the science

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(branch of metaphysics) that studies the universe as a regular system. Cosmology is a science (branch of philosophy) that studies the universe's structure, arrangement, and regularity. It was introduced by Cristian V. Wolff in 1728 AD.

The discussion of cosmology in the Qur'an is also very broad in scope, various discussions such as the creation of the heavens and the earth, the orbits of the stars, the structure of the universe, black holes, the creation of the seven layers of the heavens, air pressure, constellations, meteors and meteoroids, the existence of life on other planets, the time of the creation of the heavens and the earth, and so on are contained in the Qur'an.

From the description of the Qur'an regarding the planets, we can find the specialty of the Qur'an, which discusses scientific matters, which are also called I'jaz Ilmi, where scientific explanations support the news of the Qur'an regarding the planets. In addition, the Qur'an provides a definite definition of the planets and their functions.

The Qur'an explains that the function of human creation in this world is as a caliph and 'abd. To carry out this function, Allah SWT provides humans with a set of potentials, namely fitrah, so Islamic education must be an effort aimed at developing the potential of human nature to the maximum so that it can be realized in a concrete form in the sense of being able to create something beneficial for oneself, society and the environment as a reality of the function and purpose of its creation, both as a caliph and 'abd

The universe is not static but experiences evolutionary movements and changes. This view teaches the world of education that, ideally, education should not be static. The education system, especially in the field of methodology, must follow the developments that occur.

As for this article, the discussion will focus on creating the layered sky. Therefore, the verses that will be the object of study are QS Al-Mulk verses 3-4, which discuss this theme. In addition to these verses, there are also other verses, namely QS Al-furqan verse 2, which also have a discussion relationship with verses 3 and 4 of Surah Al-Mulk. This article will also explain the significance of the two verses of the object of study above and their implications for everyday life.

Method

This study uses a qualitative approach, the literature study method (Library Research). Specifically, this approach involves collecting data through reading classical and modern interpretation books and books related to cosmology that science experts have discussed.

Discussion

QS Al-Mulk : 3-4

الَّذِي خَلَقَ سَبْعَ سَمَاوَاتٍ طِبَاقًا مَا تَرَى فِي خَلْقِ الرَّحْمَنِ مِنْ تَفْوُتٍ فَارْجِعِ الْبَصَرَ هَلْ تَرَى مِنْ فُطُورٍ
(الملك/3:67)

“(He also) created the seven heavens in layers. You will not see the slightest imbalance in the creation of the Most Merciful God. So, retake a look! Do you see any flaws?”

ثُمَّ ارْجِعِ الْبَصَرَ خَاسِبًا وَهُوَ حَسِيرٌ (الملك/4:67)

“Then, look once more (and) once more (to look for flaws in Allah's creation), surely your gaze will return to you disappointed and in a weary state (because it did not find it).” (Al-Mulk/67:3-4)

Surah al-Mulk is included in the Makiyyah surah group, is the 67th surah in the Qur'an, and consists of 30 verses. Some literature calls al-Mulk's letter Tabaraak. This letter has several main points of discussion, namely about life, death, tests for humans, God's power in creating the heavens, the command to pay attention to the contents of the universe, the threat of punishment for unbelievers, God's promise to believers and God's warning to people who deny it. As for verses 3-4 of this letter, the focus of the discussion is related to the kauniyah verse, namely about the creation of the layers of the sky and the command to pay attention to this event.

Ibn Jarir al-Tabari, whose work is a reference for many commentators, in his commentary explains that the word مِنْ تَفَاوُتٍ has the meaning of difference. He also gives meaning to the phrase مِنْ فُطُورٍ which means defect with the meaning of split, as in the word of Allah QS Asy-Syuura [42]: 5 تَكَادُ السَّمَاوَاتُ يَنْقَطِرُنَ مِنْ فَوْقِهِنَّ "The sky almost broke from above (because of the greatness of Allah)." Another sentence that was also highlighted by al-Tabari was ثُمَّ ارْجِعِ الْبَصَرَ كَرَّتَيْنِ and يَنْقَلِبْ إِلَيْكَ الْبَصَرُ خَاسِبًا, which two sentences mean that your repeated looking for the imperfections of Allah's greatness will not be successful, instead you will find humiliation and a state of weakness and helplessness. (Tabari 2017)

Wahbah Az-Zuhaily explained a more detailed explanation of the two verses above in his tafsir al-Munir. He explained that human vision and contemplation of the multi-layered creation of the heavens will not find any contradictions, differences, or incongruities. This shows the greatness of its creator, who has perfect power and detailed, comprehensive, orderly, and neat knowledge.

He also explained that the sky is a material whose essence cannot be known except by Allah. Some astronomers argue that the sky is a vacuum in which the planets rotate. If we know that the planets have different dimensions and

different distances, we will be able to see the picture of the seven celestial spheres, the formation of the central cluster of the solar system orbit and the cluster of stars known as the universe.

Regarding the explanation of the layered sky, there are many different opinions. Some say that the layers are stars, others say that the layers are the order of the planets in the solar system. However, there are also those who argue that the layers are a series of air as stated by astronomy experts. In the book *Mausu'ah al-I'jaz al-Qur'ani* by Dr. Nadiyah Tharayarah, it is explained that the layers of the sky are a composition of air layers that exist in our natural life, namely the earth. The explanation of the layers is as follows:

The first layer of the sky (Trophysphere) is the lowest layer of air where living things live. This layer consists of several layers. The air conditions in this layer can change from one condition to another, from hot to cold, from cloudy to rainy, from a gentle breeze to a storm. Its location can also move from one place to another, from lowlands to highlands. This layer is at a height of no more than 16 kilometers above the earth's surface.

The second layer is the layer (Statosphere) which contains sulphur gas molecules. These gases play a role in breaking up clouds and facilitating the process of rain. Without these sulphur gases, there would never be heavy rain and there would be no life on earth. In this layer there is also ozone, a gas that contains a concentration of O₃ and is able to absorb deadly ultraviolet rays. Ultraviolet rays emitted by the sun are not allowed by the ozone layer to enter the earth, except for a small part to kill harmful germs found in living things. However, this layer has been damaged. The cause is from humans themselves, the launch of satellites and artificial exhaust gases are the main triggers for damage to this layer, as a result of which skin cancer begins to be suffered by some people. This layer is located at an altitude of 35 kilometers above the earth's surface.

The third layer is the layer (Mesosphere) which resembles a very hot nuclear furnace. This layer is the barrier that prevents asteroids and meteoroids from penetrating and destroying everything on earth when they fall. This layer melts all celestial bodies that pass through it, so that when these objects reach earth, they have burned and become dust that can only be seen with a magnifying glass. This layer is at an altitude of 50-75 kilometers above the earth's surface.

The fourth layer is the layer (thermosphere/Ionosphere) whose entire area is ionized, with a height reaching 80 kilometers. This layer is exposed to the sun directly, especially by ultraviolet rays. Ultraviolet rays attack the oxygen and nitrogen atoms in this layer so that the atoms lose one of their electrons and become ionized or electrically charged. These atoms are then called ions that are electrically charged and replace the position of millions of substances that are visible in the air. These ions then reflect wireless waves from the earth and send them back. This system is then used to send messages without using cables.

The fifth layer is the layer (Exosphere) which is located above the thermosphere layer and is the uppermost layer of the atmosphere, the height of this layer reaches an unknown limit. Therefore, there is no clear boundary between the exosphere and outer space. (Thayyarah 2014)

In the word of Allah QS al-Anbiya': 32, there is a sentence *سَقْفًا مَّحْفُوظًا* (a protected roof) meaning with this roof the sky is protected. Some scientists say that the earth's atmosphere is a real fortress. Therefore, sunlight can be filtered, meteors can burn, and only things that are beneficial for our lives on earth can pass through. (Syaputri Deli 2022). This is the proof of the truth of His word,

وَجَعَلْنَا السَّمَاءَ سَقْفًا مَّحْفُوظًا وَهُمْ عَنْ آيَاتِهَا مُعْرِضُونَ (الانبياء/21:32)

“We made the sky a roof that is protected, but they still turn away from the signs (which show the greatness of Allah, such as the sun and the moon).” (Al-Anbiya'/21:32)

QS Al-Furqan : 2

الَّذِي لَهُ مُلْكُ السَّمٰوٰتِ وَالْاَرْضِ وَلَمْ يَتَّخِذْ وَلَدًا وَلَمْ يَكُنْ لَهُ شَرِيْكٌ فِى الْمَلٰٓئِكَةِ وَخَلَقَ كُلَّ شَيْءٍ فَقَدَرَهُ تَقْدِيْرًا (الفرقان/25:2)

“(That is the Being) to whom belongs the kingdom of the heavens and the earth, (He) has no children, and no partner in (His) power. He has created everything, then determined its exact measurements.” (Al-Furqan/25:2)

Surah al-Furqan is included in the Makiyyah surah group, is the 25th surah in the Al-Qur'an and consists of 77 verses. In the book *Asbabun An-Nuzul* by As-Suyuti, it is explained that in the opinion of the majority of scholars, this letter is included in the Makiyyah letter except for three verses, namely verses 68-70 which were revealed in Medina

In general, this letter talks about the Oneness of Allah and the greatness of the Qur'an, mentioning various insults that were thrown at prophethood and refuting these insults. The second verse of Surah al-Furqan, which is the focus of the study in this research, talks about the verse of monotheism, that all creation in this universe was created by the will of Allah, as well as those who regulate this natural system. The orderliness of the system, program and size of the universe does not occur by chance, but is precisely regulated by God.

In the interpretation of al-Munir, the verse above is divided into four parts which are a form of Allah's characterization of the greatness of His Essence. The four parts are first, the sentence *الَّذِي لَهُ مُلْكُ السَّمٰوٰتِ وَالْاَرْضِ* as a form of ownership and power over everything in the heavens and on earth. He also has the ability to create and destroy, bring to life and kill, command and forbid anything according to what He wills.

Second, the sentence *وَلَمْ يَخْذُ وَلَدًا* is a refutation of the claims of the Jews, Christians and Arab polytheists who made the Messiah the son of Allah, and made the angels the daughters of Allah.

Third, the sentence *وَلَمْ يَكُنْ لَهُ شَرِيكٌ فِي الْمَلِكِ* is the answer to the pagan idol worshippers who say that there are two gods for this world, namely light and darkness. In addition, it is also the answer to the ash-shaa'ibah group, as well as the Arab polytheists. This sentence fragment shows that Allah holds divinity individually, only He has the right to be the object of worship and worship, there is no partner for Him in His ownership and power.

Fourth, the sentence *وَخَلَقَ كُلَّ شَيْءٍ فَقَدَرَهُ تَقْدِيرًا* is also proof of Allah's greatness. Allah created all creatures in the best form, every inch of size, specification and so on He noticed and He created them perfectly. Humans for example, were created by Allah in a predetermined form and in the best creation. He created for them various senses, energy, and potential to realize, understand, assess, organize and create creations, and carry out various different jobs, as well as animals, plants, and other inanimate objects, He created them according to their functions and needs.

In relation to this fourth sentence, the author argues that the order that Allah has created also includes the order of the universe, in this case related to the discipline of cosmology. The creation of various planets in the solar system that rotate in their respective rotations without chaos or collision of one planet with another is proof of Allah's greatness over His power in regulating all things.

Basic Implications for Islamic Educational Values

After the author explains the two verses about cosmology in the Qur'an above, it is necessary to implement the explanation of the two verses as a step to find out their implications for the realm of education. Education functions as a tool of social control, education can function as a service to carry out social control mechanisms. Islamic education must delve deeper into the guidance of the source of the Islamic religion, namely the Qur'an. And we find that the Qur'an strongly encourages its readers to always use their minds in applying all their activities, especially in reading the phenomena of the universe and seeking the ultimate truth with the guidance of revelation. Islamic education philosophically has a goal in accordance with the nature of human creation, namely to worship Allah SWT, to become a servant who serves Allah SWT, in line with the following verse of the Qur'an:

وَمَا خَلَقْتُ الْجِنَّ وَالْإِنْسَ إِلَّا لِيَعْبُدُونِ (الدَّرِيَّت/56:51)

“I did not create jinn and humans except to worship Me.” (Az-Zariyat/51:56)

The goal of education in the Qur'an is to form a complete Muslim personality, develop all human potential, both physical and spiritual, foster a harmonious relationship between each individual and Allah, and establish good communication with fellow human beings and with the universe.

In implementing it into the realm of teaching and learning activities, parameters or measuring tools are needed in the form of operational verbs that are used as guidelines in learning. These operational verbs are formulated from several verses that are commonly used in the Qur'an in explaining the process of a job, namely:

1. The words 'alima – ya'lamu (يعلم – علم)
2. The word 'aqala-ya'qilu (يعقل - عقل)
3. The verb faqiha-yafqahu (يفقه – فقه)
4. The word fakkara-yufakkiru (يفكر - فكر)
5. The word 'amala-ya'mulu (يعمل – عمل)

The five verbs above with all their changes were chosen because the Qur'an mentions and uses them a lot. Like the verb 'alima - ya'lamu (يعلم - علم) was chosen because it is widely used by the Qur'an in the process of human activities and activities in knowing everything in this universe, while the others are related to the nature of Allah who is All-Knowing. The word aqala-ya'qilu (يعقل - عقل) was chosen because it is widely used in the Qur'an in relation to the command to understand something scientific or knowledge. While the other verbs were chosen because they have munasabat with the theme of the indicator being studied.

Application in educational practice, the verbs are made into operational verbs that accompany educational materials that have been found previously. The classifications of operational verbs are arranged according to the following level order, knowing; understanding; thinking, analyzing; practicing/working/applying.

Level 1-4 operational verbs above are used in compiling educational objectives (Islam). The application of operational verbs that accompany this educational material is very important to measure the level of success and absorption of students towards the material that has been given.

In relation to the cosmological verse that is the main topic of study in this article, it can be concluded that by knowing the creation of the layered sky along with an explanation of what is meant by it, we can then understand the importance of maintaining and caring for it from damage, then thinking and analyzing what actions can cause damage and what actions can help maintain it, from the knowledge obtained from this process that is then applied in everyday life. However, it also needs to be underlined that the main topic of study or other implications that are also important to know are that this verse is a verse of monotheism that aims to strengthen our faith, believe in the Oneness, all attributes and essences, and His perfection through the greatness of His creation.

There are many benefits that we can take from the story of the scientific miracle of the Qur'an which explains that before it was discovered by scientists, the Qur'an had explained it first. This, when viewed in terms of relevance to

education, can be seen in science lessons. Where in science lessons it contains the theme of the 'Solar System', understanding the sun as the center of the solar system and the interaction of the earth in the solar system, describing the rotation of the earth, the revolution of the earth, the revolution of the moon. In this case, as educators, we should provide an explanation to students that in the Qur'an it has been explained before scientists discovered the theory.

Conclusion

The Qur'an as a prototype of all books that symbolize knowledge, contains all natural phenomena that can be traced by scientific research. One of its fields of study is cosmology, which is the science that studies the origin, structure, and relationship between space and time in the universe. Cosmology is very broad in scope, such as the creation of the layers of the sky and the perfection of the order of the universe. In the Qur'an, the two cosmological studies above are contained in QS al-Mulk verses 3-4 and QS al-Furqan verse 2. From the verse of the creation of the seven layers of the sky, it can be seen that the interpreters and scientists have different opinions regarding the nature of the seven layers of the sky, but one opinion says that what is meant by the layer is the layer of air that protects the earth. As for QS al-Furqan verse 2 contains an explanation of the perfection of Allah's creation.

The two verses above broadly have a main study on monotheism. How the power and greatness of Allah are defined in the two verses through His creation. In relation to the realm of Education, the two verses talk about the material of protecting and caring for nature from damage. By understanding the two verses, we can manage and utilize the universe and its resources wisely, avoiding natural disasters and chaos and disorder in the universe.

Future research is suggested to explore the differences in scientists' views regarding the seven layers of the sky in QS al-Mulk verses 3-4 through literature studies. In Islamic education, integrate the concept of monotheism from both verses into the curriculum, with a focus on preserving nature and understanding the perfection of Allah's creation, to enhance wisdom and sustainability.

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