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Qouliyah-Kauniyah Verse Relation (Integration of the Qur'an with Science in the Discourse of Interpretation)

Shofwan al Jauhari¹, Rifqi As'adah², Hendra Yulia Rahman³

¹IAIN Fattahul Muluk Papua, ²UIN SATU Tulungagung, ³IAIN Fattahul Muluk Papua
[1eljauhar76@gmail.com](mailto:eljauhar76@gmail.com), [2rifqialjauhari@gmail.com](mailto:rifqialjauhari@gmail.com), [3hendra9rahman@gmail.com](mailto:hendra9rahman@gmail.com)

ABSTRACT

The birth of tafsir with the pattern of 'Ilmi' tafsir is proof that the study of science and the Qur'an cannot be separated and will continue to develop, this is clear evidence of the relationship between the kauniyah verse and the qauliyah verse. This research seeks to examine the nature of the verse qauliyah and verse kauniyah, how both are fused, and also how the pattern of scientific development produces tafsir ilmi which is not far from the rules of interpretation that have been set by the mufassirun. This research method uses a qualitative method with a literature research approach. This study concludes that the relationship between the Qur'an and science can be seen through the many scientific truths described in the Qur'an that show the integration between the two. Mufassirs try to combine the findings of scientific theories with the exposure of the verses of the Qur'an. However, many interpreters are eventually trapped by the element of subjectivity in the application of interpretation so that it seems that the verse of the Qur'an is used to legitimize the scientific theory. This is certainly not in line with the standard rules of tafsir science. For this reason, some principles of interpretation are needed, so that the element of subjectivity of interpretation can be avoided. Additional principles in addition to the main principles that have been standardized required for a mufassir, there are other additions, namely: mastery of the right language, scientific discoveries do not contradict the verses of the Qur'an by paying attention to the context between words or verses, the nature of scientific discoveries does not exceed the editorial content of the verses.

INTRODUCTION

The Qur'an as a revelation and the main source and reference for Muslims contains guidance, advice about human life. Its content is diverse, comprehensive, from religious teachings and sharia, to science, society, politics, technology as well as stories of

previous generations as lessons and wisdom for generations afterwards and not forgetting to explain the rewards and sins that are clearly illustrated in several verses of the Qur'an.

The Qur'an, which consists of 30 Juz, 114 surahs and 6,236 verses¹, also presents the life of the universe, including describing the universe and its phenomena. The verses of the Qur'an are called kauniyah verses, which consist of approximately 750 verses.² There are even more than 1,000 verses that are generally in harmony with science and science.³ Some facts successfully prove that something that has not been reached by human logic and the development of science and technology, the Qur'an has clearly informed it. Allah has proven His greatness and power through the interconnected and interrelated correspondence between the qouliyah verse and the kauniyah verse.

The Qur'ān, in referring to natural phenomena, does not mean that it is equated with science books, or that it is meant to explain scientific principles. Surah Al-Nahl verse 89 explains that the main purpose of the Qur'ān is to be a book of light and explanation of everything and to bring mercy and good news to all people.⁴ The message in the verse is in the form of *tibyānan likulli shay'i*, which means that the Qur'an does not intend to explain that the Qur'an is a complete book that covers everything, but that in the verses of the Qur'an will be found all the basic instructions for human life that are closely related to human happiness, both here and in the hereafter.⁵

The idea of combining science and the Qur'an gave birth to many views, even giving birth to a scientific pattern. The birth of tafsir that is characterized by 'Ilmi tafsir is one proof that the study of science and the Qur'an has been built and continues to grow. However, the issue of the relationship between the two gave birth to interesting conversations, then developed in a scientific framework, whose discourse entered and led to the subjectivity of a mufasir's scientific theory in his interpretation, and sometimes the resulting interpretation went out of the corridor and exceeded the limits of interpretation. There is some literature that discusses the relationship between kauniyah verses and qauliyah, among others written by Sulistiowati with the theme "towards the integration of Islamic sciences with general sciences" (integrative between studies sourced from qauliyah

¹ al-Zarkasy, Imam, *Al-Burhān Fī 'Ulūm Al-Qur'an*, 1st ed. (Kairo: al Halabiy, 1957), 249.

² Thanthawi Jauhari, *Al-Jawābir Fī Tafsīr Al-Qur'an*, Jilid 1 (Kairo: al Halabiy, 1350), 03.

³ Zakir Naik Ristanto alaih bahasa Dani, *The Qur'an & Modern Science* (Solo: Aqwam, 2019), 11.

⁴ Q.S. Al-Nahl (14): 89.

⁵ Mahmud Syaltut, *Tafsīr Al-Qur'an Al-Azhīm*, II (Mesir: Dar al-Qalam, n.d.), 13.

verses and kauniyah verses). The focus of the discussion of this paper is on the dichotomy of Islamic science with general sciences, which causes Islamic scientists to try to Islamize or integrate the two sciences, because if not done it will have a bad impact on human life. This causes the relationship between Islamic science and the general public to have three typologies, namely: Restorationist, Reconstructionist, and Reintegrationist.⁶ An article entitled Integration through Passages Qauliyah Course Materials on the Development of Animal written by Arnentis Arnentis, Evi Suryawati, this article discusses the understanding and strengthening of student character through the integration of qauliyah verses with animal development lecture materials in the Biology Education Study Program, Department of Mathematics and Science Education FKIP Riau University.⁷ The article with the theme Integration of Sciences is written by Fathul Mufid which discusses how the integration between science and religion. Islamic theology is based on revelation, hadith and ijtihad while science is based on human thought through research on empirical data.⁸

In this study the author will examine the nature of qauliyah verses and the nature of kauniyah verses, how the integration between the two, and also how the pattern of science development that produces a scientific interpretation so that it is not far from the instructions and rules of interpretation that have been set by mufassirun.

METHODS

Based on the object of research, data sources, this study includes qualitative research not quantitative because the data collected is qualitative and does not use measuring instruments. The author uses literature or library research in collecting the data. The data is collected through primary and secondary references. Primary data is related to mu'tabar tafsir books and secondary data is data derived from books, articles or journals that discuss kauniyah and qauliyah verses, the data after being collected and written, read then reviewed and analyzed.

⁶ Susilawati Susilawati, "Menuju Integrasi Ilmu-Ilmu Keislaman Dengan Ilmu-Ilmu Umum (Integratif Antara Kajian Yang Bersumber Ayat-Ayat Qauliyah Dan Ayat-Ayat Kauniyah)," *Cross-Border* 5, no. 1 (September 19, 2022): 939–54.

⁷ Arnentis Arnentis and Evi Suryawati, "Analysis of Understanding Ond Strengthening Of Character Students Integration through Passages Qauliyah Course Materials on the Development of Animal," *Proceeding Biology Education Conference: Biology, Science, Enviromental, and Learning* 12, no. 1 (January 1, 2016): 602–6.

⁸ Fathul Mufid, "Open Journal Systems," accessed October 12, 2023, <https://doi.org/10.21043/equilibrium.v1i1.200>.

DISCUSSION

A. The Nature of Qouliyah Verses

The Qur'an is the word of Allah SWT which has been revealed to the Prophet Muhammad SAW through the ruhul quds - the angel Gabriel to convey it to humans and is considered an act of worship for its readers. Qauliyah verses, which are referred to here, are verses that are part of the Qur'an spoken by Allah in the holy Qur'an which contains messages for human life which are a reflection of his gracious and merciful nature.⁹

M. Quraish Shihab stated, in general, the main content of the Al-Qur'an is about aqidah, sharia and morals.¹⁰ While the purpose of the Qur'an is not just religious and ritual,¹¹ but the Qur'an is present to be a complete and comprehensive guide. In it there are values that can be a solution to solve all life problems and human values for the benefit and benefit of all humans.

B. The Nature of Kauniyah Verses

Ayat Kauniyah is a form of idiom / idiom consisting of the words ayat and kaun. In *Mu'jam Al-Wasit* the word ayat has many different meanings, including meaning 'alāmat also amārah which means sign. It also means ibrah which means wisdom, and sometimes means mu'jizat which means revelation. The word ayat also sometimes means syakhsyun which means a person and sometimes also means jamā'ah which means several people or a group of people.¹²

The word kaun means musytaq from the word *kāna-yakūnu* in the sense of something that exists, appears and is seen, also sometimes means ism lima yahdutsu duf'atan which is something that is present suddenly.¹³ There is an additional letter yes, in the word kaun, so that it becomes the word kauniy because the letter yes is a yes nisbah,¹⁴ while the letter ة (*ta' marbutah*) is located at the end of the word, because the word is attributed to the word ayat, as a hint of *muannats* (female). If you look at

⁹ Ahsin Sakho Muhammad, *Keberkahan Al-Qur'an Memahami Tema-Tema Penting Kehidupan Dalam Terang Kitab Suci* (Jakarta: Qaf, 2017), 33.

¹⁰ M. Quraish Shihab, *Membumikan Al-Qur'an* (Jakarta: Mizan, 1992), 33.

¹¹ M. Quraish Shihab, *Wawasan Al-Qur'an Tafsir Maudhu'i Atas Pelbagai Persoalan Umat* (Jakarta: Mizan, 2007), 13.

¹² Majma'ul Lughah Al-'Arabiah, *Al-Mu'jam Al-Wasith* (Mesir: Majma'ul Lughah Al-'Arabiah, 1429), 35.

¹³ Majma'ul Lughah Al-'Arabiah, 36.

¹⁴ Abdullah bin Hisyam, *Audhabul Masālik Ila Alfīyat Ibn Malik* (Beirut: Dar Ibn Hazm, 1429), 140.

the two basic meanings, it can be concluded that the kauniyah verses are signs related to something that is visible and can be felt by the human senses.

Scholars define the meaning of kauniyah verses including those presented by Muhammad Amin Al-Syinqithy, according to him the meaning of kauniyah verses is verses that have the meaning of signs of the greatness of Allah SWT.¹⁵ In the book *Al-Qaul Al-Mufid `Ala kitab Taubid* by Uthamain, he divides the verses of the Qur'an into two parts, namely ayat syar'iyah (verses about shari'at) and ayat kauniyah (verses that explain about nature and its contents).¹⁶ While some muta'akhirin scholars explain the meaning of kauniyah verses are verses related to *i'jāz 'Ilmy*. When referring to the scope of Maudhu'i interpretation, the meaning of kauniyah verses means verses of the Qur'an that explain the oneness of Allah SWT regarding nature in its entirety, as well as the process of creation and has nothing to do with the history of previous people, the provisions of sharia law and the theme of faith.¹⁷

C. Classification Of Kauniyah Verses In The Qur'an

Many verses explain about natural phenomena and their contents in the Qur'an. The natural phenomena described in the Qur'anic verses range from phenomena on the face and bottom of the earth, in the depths of the ocean, in outer space, to inside the body cavity of living things. If classified kauniyah verses in the Qur'an include, among others, verses that discuss the creation of nature (astronomy), verses that discuss the existence of subatomic atomic particles (physics), verses that discuss the earth (geography), verses that discuss mountains (geology), verses that discuss the sea (oceanology), verses that discuss living things (biology), verses about water, animals and plants and many more sciences and scientific facts that have been revealed by the Qur'an.

There are differences of opinion among scholars regarding the exact number of kauniyah verses scattered in the Qur'an. According to Dr. Abdullah Syahat, who we find in his book of interpretation of kauniyah verses, said in the Qur'an there are 277 verses that explain the verses of kauniyah, and are in 55 places.¹⁸ Meanwhile, Sheikh

¹⁵ Muhammad al-Amin bin Muhammad Aal-Mukhtar Al-Jakni Al-Syinqithy, *Adhwaul Bayan Fī Idbabil Quran Bil Quran* (Beirut: Dar al fikr, 1410), 187.

¹⁶ Muhammad bin Shalih Utsaimin, *Al-Qaul Al-Mufid `Alā al-Kitāb Taubid*, (Damaskus: Muassasatu ar-Risalah An-Nasyirun, 1431), 152.

¹⁷ "Tafsir Ayat Kauniyah | Rusydi | Al Qalam: Jurnal Ilmiah Keagamaan Dan Kemasyarakatan," 124.

¹⁸ As-SyahatAbdullah, *Tafsir Ayat Kauniyah* (Kairo: dar al i'tisham, 1400), 31.

Tanthawi states that the kauniyah verses in the Quran are 750 verses.¹⁹ To make it easier to trace the existence of kauniyah verses, the author classifies some of the kauniyah verses scattered in various verses in the Qur'an, the author of the following table:²⁰

No	Klasifikasi	Letak Ayat	Jumlah
1.	Alam (langit, bulan, bintang, matahari dan bumi)	Q.S.6: 76, Q.S.6: 97, Q.S.12: 4, Q.S.15: 16, Q.S.25: 61, Q.S.85: 1, Q.S.16: 16, Q.S.22: 18, Q.S.21: 30, Q.S.41: 11, Q.S.31: 29, Q.S.39: 5, Q.S.79: 30, Q.S.25: 61, Q.S.71: 15-16, Q.S.21: 33, Q.S.40: 36, Q.S.36: 38, Q.S.25: 59, Q.S.51: 47.	20 Tempat
2.	Awan	Q.S. 7:160, Q.S. 2:164, Q.S. 51:2, Q.S.24:40, Q.S. 24:43, Q.S. 30:48, Q.S. 27:88, Q.S. 46:24, Q.S. 52:44, Q.S. 78:14.	10 Tempat
3.	Angin	Q.S.2: 164, Q.S.2: 266, Q.S.3: 117, Q.S.7: 57, Q.S.35 :9, Q.S.7 :133, Q.S.10 :22, Q.S.30 :46, Q.S.15 :22, Q.S.17: 69, Q.S.21 :81, Q.S.34:12, Q.S. 22:31, Q.S. 25:48, Q.S. 27:63, Q.S. 30:48, Q.S. 30:51, Q.S. 33:9, Q.S. 36:38, Q.S. 41:16, Q.S. 45:5, Q.S. 51:41-42, 5 Q.S. 4:19, Q.S. 54:34, Q.S. 56:42, Q.S. 69:6-7.	26 Tempat
4.	Siklus air hujan	Q.S. 15: 22, Q.S. 2:19, Q.S. 6:6, Q.S. 11:52, Q.S. 71:11, Q.S. 2:265, Q.S. 7:57, Q.S. 10:24, Q.S. Q.S. 5:22, Q.S. 16:10-11, Q.S. 30:48, Q.S. 31:34, Q.S. 11:82, Q.S. 42:28, Q.S. 6:96, 13:17.	16 Tempat
5.	Air	Q.S. 2: 74, Q.S.7: 160, Q.S.2 :164, Q.S.25 :48, Q.S.31:10, Q.S.29: 63, Q.S.43:11, Q.S.11: 43-44, Q.S.17:90, Q.S. 18:41, Q.S. Q.S.21:30, Q.S. 22:63, Q.S. 23:18, Q.S. 43:11, Q.S. 23:27, Q.S. 23:50, Q.S. 25:49, Q.S. 50:11, Q.S.25:54, Q.S. 26:134-137, Q.S. 26:155-156, Q.S. 27:60, Q.S.29:14, Q.S. 34:16, Q.S. 32:8, Q.S. 32:27, Q.S. 35:27, Q.S. 39:21, Q.S. 50:9, Q.S. 44:25, Q.S. 79:31, Q.S. 55:44, Q.S.	44 Tempat

¹⁹ Jauhari, *Al-Jawābir Fī Tafsīr Al-Qur'an*, 03.

²⁰ Agus Purwanto, *Ayat-Ayat Semesta* (Jakarta: Mizan, 2008), 25–180.

		78:25, Q.S. 56:31, Q.S. 78:14-15-16, Q.S. 80:25, Q.S. 56:68-69-70, Q.S. 77:27, Q.S. 67:30, Q.S. 69:11, Q.S.72:16, Q.S. 86;6-7.	
6.	Api	Q.S. 2:17, Q.S. 2:266, Q.S. 7:12, Q.S. 55:15, Q.S. 13:17, Q.S. 15:18, Q.S. 21:69, Q.S. 24:35, Q.S. 37:10, Q.S. 39:16, Q.S. 56:73, Q.S. 111:3, Q.S. 70:16.	13 Tempat
7.	Tanaman dan buah-buahan	Q.S. 6:99, Q.S. 13:4, Q.S. 16:11, Q.S. 18:32, Q.S. 23:19, Q.S. 36:34, Q.S. 80:28-29, Q.S. 16:67, Q.S. 18:32, Q.S. 78:32, Q.S. 2:261, Q.S. 2:61, Q.S. 6:59, Q.S. 6:95, Q.S. 56:63-65, Q.S. 78:15, Q.S. 7:130, Q.S. 13:4, Q.S. 28:57, Q.S. 36:35, Q.S. 41:47, Q.S. 88:6-7, Q.S. 95:1, Q.S. 105:5, Q.S. 6:99, Q.S. 6:141, Q.S. 76:17, Q.S. 36:80, Q.S. 63:4, Q.S. 85:5, Q.S. 111:4, Q.S. 2:266, Q.S. 17:91, Q.S. 26:148, Q.S. 50:10, Q.S.54:20, Q.S. 55:11, Q.S. 69:7, Q.S. Q.S. 55:37, Q.S. 56:29, Q.S. 54:31, Q.S. 87:4-5, Q.S. 14:24-26, Q.S. 17:60, Q.S. 23:20, Q.S. 34:16, Q.S. 31:27, Q.S. 55:6, Q.S. 56:28, Q.S. 88:6, Q.S. 10:24, Q.S. 14:37, Q.S.15:23, Q.S. 18:45, Q.S. 21:15, Q.S. 21:78, Q.S. 28:5, Q.S. 32:27, Q.S. 39:21, Q.S. 55:12, Q.S. 57:20, Q.S. 79:31, Q.S. 80:26-32, Q.S. 6:99, Q.S. 16:11, Q.S. 6:141, Q.S. 24:35, Q.S. 80:29.	69 Tempat
8.	Hewan	Q.S. 7:176, Q.S. 18:18, Q.S. 3:49, Q.S. 5:31, Q.S. 5:110, Q.S. 16:79-80, Q.S. 21:79, Q.S. 34:10, Q.S. 22:31, Q.S. 24:41, Q.S. 27:16-17-22-28, Q.S. 7:163, Q.S. 2:164, Q.S. 2:171, Q.S. 5:2,4,79,94, Q.S. 22:33, Q.S. 105:1, Q.S. Q.S. 6:28, Q.S. 16:5-7, Q.S. 23:21-22.	20 Tempat
9.	Angka dan bilangan	Q.S. 9:36, Q.S. 10:5, Q.S. 17:12, Q.S. 21:47, Q.S. 23:17, Q.S. 24:39, Q.S. 29:14, Q.S. 72:25, Q.S. 78:12, Q.S. 89:2-3.	10 Tempat
10.	Waktu	Q.S. 30:17, Q.S. 40:46, Q.S. 74:34, Q.S. 81:18, Q.S. 113:1, Q.S. 2:259, Q.S. 9:36, Q.S. 15:38, Q.S. 27:39-40, Q.S. 16:77, Q.S. 22:47, Q.S. 32:5, Q.S.	16 Tempat

		23:113, Q.S. 23:114, Q.S. 34:12, Q.S. 41:9.	
11.	Proses Penciptaan Manusia	Q.S. 96: 1-2, Q.S. 86: 5-7, Q.S. 32: 8, Q.S. 76: 2, Q.S. 53: 45-46, Q.S. 75: 37-39, Q.S. 39: 6, Q.S. 23: 12-14, Q.S. 75: 37-39, Q.S. 82: 7-8, Q.S. 22: 5, Q.S. 32: 9, Q.S. 76: 2, Q.S. 23: 78.	13 Tempat

D. Integration Of The Qur'an With Science As A Necessity

That Allah SWT created this verse in two ways. Both are complementary and connected to each other. This shows that the human ability to understand both is very necessary. Allah not only tells us to understand the Book of Allah in the form of Qauliyah, but also requires us to look at this natural phenomenon. Nature is God's verse, and must be studied and explored as deeply as possible, so that mankind can get closer to God's power. This is in accordance with the word of Allah found in surah Ali 'Imran verse 190.

إِنَّ فِي خَلْقِ السَّمَوَاتِ وَالْأَرْضِ وَاخْتِلَافِ اللَّيْلِ وَالنَّهَارِ لَآيَاتٍ لِّأُولِي الْأَلْبَابِ

At least there are several things that become the basis for the integration between religion and science or more precisely the integration between the Qur'an and science, including:

1. Normative-theological foundation

In strengthening the scientific building on science, a foundation is needed in order to understand something using the perspective of the Qur'an.²¹ Surah Al-Qashas verse 77 signals that the Qur'an does not dichotomize between religious science and general science or science, between the two are correlated and inseparable from one another.

وَابْتَغِ فِيمَا آتَاكَ اللَّهُ الدَّارَ الْآخِرَةَ وَلَا تَنْسَ نَصِيبَكَ مِنَ الدُّنْيَا وَأَحْسِنَ كَمَا أَحْسَنَ اللَّهُ إِلَيْكَ وَلَا تَبْغِ الْفُسَادَ فِي الْأَرْضِ إِنَّ اللَّهَ لَا يُحِبُّ الْمُفْسِدِينَ.

2. Historical foundation

The peak of the mastery of science experienced by Muslims occurred during the reign of the Abbasid dynasty. Many famous Muslim scientists of the era,

²¹ Abuddinnata, dkk, *Propectus UIN Syarif Hidayatullah* (Jakarta: UIN Jakarta Press, 2006), 59.

including Ibn Sina, Rashid. Islamic science and civilization experienced a golden age. During this period, Muslims also became world leaders because of their focus on all the sciences, not only on religious sciences, but also on general sciences and natural sciences.

As we strive to build the progress of the world, especially the progress of Islamic civilization brought about by Muslim scholars, it is very important to trace the historical roots of science. This issue stems from the fact that science and technology are conceptually and in fact not new to Muslims. It is an integral part of the Islamic worldview and progress. Hence, it is not surprising that science was so important to Muslims in the early days. Therefore, history can say that science and technology are the inseparable intellectual heritage of Muslims. Therefore, every Muslim should discover this precious heritage and continue to pass it on.²²

3. Philosophical foundation

From an ontological point of view, it can be seen that the purpose of learning religious sciences and general sciences such as science, can actually be put aside. Religious science is based on revelation. Science is based on the existence of the universe and its contents. However, both types of knowledge come from Allah SWT so they are still interconnected. In addition, from an epistemological point of view, religious sciences consist of dogmatic approaches and general sciences consist of observation, experience and control approaches.²³

In the study of tafsir studies, studies about the relationship between the Qur'an and science have actually long occurred. This gave rise to the 'ilmly style of interpretation that utilizes scientific findings in interpreting the Qur'an. This is the embryo of the relationship between the Qur'an and science. As for the study of science itself and other sciences such as the humanities and social sciences, a model of Qur'anization of science has also been carried out, which justifies and provides reinforcement of scientific discovery theories with Qur'anic verses.²⁴

²² Abdul Wahab Rosyidi, *Sains Dalam Sejarah Peradaban Islam Merunut Akar-Akar Sains Islam Sebagai Dasar Upaya Pengembangan Sains Dan Teknologi Di PTKIN* (Malang: UIN Malang, n.d.), 02.

²³ Abdullah, M. Amin dkk, *Integrasi Sains-Islam Mempertemukan Epistemologi Islam Dan Sains* (Yogyakarta: Pilar Religia, 2004), 11.

²⁴ "Al-Qur'an Dan Lahirnya Sains Teistik | TSAQAFAH," 260, accessed October 12, 2023, <https://ejournal.unida.gontor.ac.id/index.php/tsaqafah/article/view/756>.

The first Qur'anic verse al-Alaq 1-5, signaled to humans to learn science, which is implicitly signaled by reading and writing. Reading is a process to examine and research something, while writing means documenting the results of the examination and research. This series of verses indicates the obligation of all humans to read by mentioning the name of God who created them. The command means first commanding people to believe in God, then proving that faith through verses about God's bounty. This verse also contains an order to study God's creation and then document it in writing. Therefore, various knowledge and technological discoveries must be documented in written form and compiled so that the legacy of science is preserved for future generations.²⁵

Furthermore, the Qur'an also commands humans to develop science. The Qur'anic command to develop research can be seen in the cue of surah Al-Rum verse 8.

أَوْمًا يَتَفَكَّرُوا فِي أَنفُسِهِمْ ۗ مَا خَلَقَ اللَّهُ السَّمَاوَاتِ وَالْأَرْضَ وَمَا بَيْنَهُمَا إِلَّا بِالْحَقِّ وَأَجَلٍ مُّسَمًّى ۗ وَإِنَّ كَثِيرًا
مِّنَ النَّاسِ بِلِقَاءِ رَبِّهِمْ لَكَافِرُونَ

This verse is reinforced by the word of Allah surah Al-Dzariyat verses 20-21 which emphasizes the command to humans to think about and examine one of the signs of His greatness and power.

وَفِي الْأَرْضِ آيَاتٌ لِلْمُوقِنِينَ, وَفِي أَنفُسِكُمْ ۗ أَفَلَا تُبْصِرُونَ

Some of the verses above are evidence that there is a correlation between the Qur'an and science, and there are many more verses in the Qur'an that encourage humans to use their minds to examine and develop theories of science and science.²⁶ So that the realization of the building of science, which produced many Muslim thinkers and scientists in various disciplines. Another form of correlation between the Qur'an and science is illustrated in the verses of the Qur'an which provide many scientific cues for human contemplation.

²⁵ Husnel Anwar Matondang and Sabriandi Erdian, "Alqur'an Dan Sains (Suatu Sudut Pandang Terhadap Legalitas Penafsiran Sains Atas Al-Qur'an)," *Journal Polingua: Scientific Journal of Linguistics, Literature and Language Education* 2, no. 1 (2013): 17, <https://doi.org/10.30630/polingua.v2i1.53>.

²⁶ 'Abbas Mahmud Al-'Aqqad, *Al-Falsafah Al-Qur'aniyyah* (Kairo: Dar al Hilal, tt), 12.

E. Principles Of Scientific Interpretation Of The Qur'an

When viewed, the interpretation of the Qur'an using a scientific theory approach called *tafsīr 'ilmī* has two basic types, namely the type of interpretation that contains scientific exploration and the type of interpretation that contains textual legitimacy. The first type of *tafsīr 'ilmī* starts the interpretation by describing in more detail the theories and discussions of science. While the second type of *tafsīr 'ilmī* starts the interpretation by taking a scientific theory which then seeks justification and compatibility with the text of the verse or hadith. In a work of interpretation that is characterized by 'ilmi both types can be done together, but the type of scientific exploration is more widely used in the early days until 'ilmi interpretation experienced significant development.

This type of scientific exploration is generally done by many scholars of tafsir who in fact have a background in religious science. This type can be seen in the book of interpretation by Al-Razi in the book *Mafātib Al-Ghaib* and the work of Al-Baidawi in the book *Anwar al-Tanzīl wa Asrār Al-Ta'wīl*. While the type of textual legitimacy is more widely used by modern mufasirs who are heavily influenced by the development of Western science. This type is usually practiced by scientists with a background in scientific knowledge which causes the resulting works to be more like a work of science that is supported and legitimized by religious texts, which is different from the book of tafsir. One example of the monumental is Maurice Bucaille's *La Bable*, entitled *le Coran et la science*. Indeed, the work is not called a work of tafsir, because it does not interpret the content of the Qur'an, but its focus is on the harmony of content between scientific findings and theories with existing texts.²⁷

In its development, this style of 'ilmi interpretation has been criticized because of the subjectivity of interpretation whose discussion is not in accordance with the main purpose of the Qur'an as "huda" guidance. So before a mufassir interprets and understands the verse, he is influenced by a certain background expertise or ideology. Then this situation is brought in his efforts to understand the text of the Qur'an.²⁸

²⁷ "Anil Islam: Jurnal Kebudayaan Dan Ilmu Keislaman," accessed October 12, 2023, <https://jurnal.instika.ac.id/index.php/AnilIslam/index>.

²⁸ "Subjektivitas Dalam Penafsiran Al-Quran: Fenomena Tafsir Bercorak Sektarian | Jurnal At-Tibyan: Jurnal Ilmu Alqur'an Dan Tafsir," 162, accessed October 12, 2023, <https://journal.iainlangsa.ac.id/index.php/tibyan/article/view/483>.

Because of the influence of background and ideology, the mufasirs with the style of 'ilmi interpretation (although not all of them), sometimes get caught up in lengthy scientific explanations, so that the purpose and basic functions of the Qur'an are lost. Such as the book of *Tafsīr al-Jawābir* by *Tanṭāwī Janbarī* which has drawn a lot of criticism from other mufasirs, until there is a statement *kull shay' fihi illa al-tafsīr* (everything is in it except interpretation).²⁹ The statement can arise due to scientific explanations that are too detailed and comprehensive in various aspects, and make as if the main message of the Qur'an is lost. So that this work of interpretation is no longer a work of interpretation and looks more like an encyclopaedia of science.

For this reason, some principles of interpretation are needed that can minimize the subjectivity of a mufasir, so that the main function of the book of interpretation as a medium for explaining the Qur'an can be realized. These principles are:

1. Mastery of the right language.

The majority of scholars agree that interpreting and understanding the contents of the Qur'an requires Arabic language skills. According to Quraish Shihab, Allah chose Arabic vocabulary to convey His message, and not only because the teachings of Islam first spread to Arabic-speaking societies. But Arabic is a unique language and contains a lot of vocabulary. Therefore, to understand the meaning of a word in the structure of a Qur'anic verse, we must first study the meaning of the word and then, after considering all aspects of the verse, we determine the most appropriate meaning. For example, Al-Thabariy (251-310 CE) in the past used various pre-Islamic Arabic poems as references to determine the meaning of words in Qur'anic verses.³⁰ If Al-Tabari's opinion is linked to the development of science, then the interpretation of the Qur'anic verses can be in line with the development of science. Or in other words, we live in the present, free from the interpretations of people who do not know the development of science. For example, the word "alaq" is found in verse 2 of Surah al-'Alaq

خَلَقَ الْإِنْسَانَ مِنْ عَلَقٍ

Meaning: He has created man from a clot of blood.

²⁹ Hasan al-Banna, *Muqaddimah Fī 'Ilm al-Tafsīr* (Mesir: Dār al-Ma'a>rif, 1975), 23.

³⁰ Husain Al-Zahabiy, *Al-Tafsīr Wa Al-Mufassirūn* (Mesir: Dar Al-Kitab Al-'Arabiy, 1963), 217.

The word 'alaq' does not always mean "congealed blood", because in pre-Islamic times or the time of the Qur'ān's revelation, this was not the only meaning known to the Arabs. There were other meanings, such as "clinging, or something that clings like a "leech".³¹

A professor of embryology and chair of the Department of Anatomy at the University of Toronto, Canada, Prof. Dr. Keith Moore, when asked to examine the scientific veracity of the Qur'ān's information about the embryological process, said that some of the embryological information in the Qur'ān is perfect and in line with modern discoveries. He was able to prove this when he examined the various stages of embryo formation with an ultra-precise microscope in the laboratory. When he observed and compared with leeches, he was surprised to find striking similarities between the two. To date, he has unearthed embryological information in the Qur'an using the same method. Professor Phd. Keith answered 80 questions related to embryology mentioned in the Quran and Sunnah. According to him, all the information brought by the Quran and Hadith is in line with recent discoveries in the field of embryology.³²

From this point of view, the interpretation of the term implantation (stage of human reproduction) put forward by embryologists when talking about the process of human occurrence is a necessity. Muhammad 'Abduh argued that the best way to understand the meaning of a word in the text of a verse is to pay attention to the use of the word in each verse of the Qur'an and then determine the most appropriate meaning.³³

2. Scientific discoveries do not contradict Qur'anic verses, by paying attention to the context of syiyakul kalam.

Understanding the meaning of a vocabulary word in a series of verses cannot be separated from the syiyakul kalam-the form of the word sentence with all the words in the body of the verse. We can see this when reading Surah-Al-Rahman verse 33,

³¹ Al-Raghib Al-Asfahaniy, *Mufradat Gharib Al-Qur'an* (Mesir: Al-Halabiy, n.d.), 347.

³² Ristanto, *The Qur'an & Modern Science*, 58–59.

³³ Muhammad Rasyid Ridha, *Tafsir Al-Manar* (Mesir: Dar Al-Manar, 1367), 22.

يَا مَعْشَرَ الْجِنِّ وَالْإِنْسِ إِنَّ اسْتَطَعْتُمْ أَنْ تَنْفُذُوا مِنْ أَقْطَارِ السَّمَاوَاتِ وَالْأَرْضِ فَانفُذُوا ۗ لَا تَنْفُذُونَ إِلَّا بِسُلْطَانٍ.

There is an opinion that states that this verse implies human expertise in exploring outer space. However, it must be accompanied by an understanding of the munasabah of the verse or it can be said that the context of the verse before and after must be considered. This can be seen especially in the verse after it, Surah Al-Rahman verse 35

يُرْسَلُ عَلَيْكُمَا شُوَاظٌ مِنْ نَارٍ وَنُحَاسٌ فَلَا تَنْتَصِرَانِ

In this verse Allah explicitly says that humans and jinn will not be able to save themselves from the flames of fire and copper liquid,³⁴ but this understanding should be reviewed so that the resulting interpretation is not trapped by a possible accusation of contradiction between the two verses in surah Al-Rahman: verse 33, talks about the ability of human power to explore outer space, while surah Al-Rahman verse-35, emphasizes its inability.

In addition to paying attention to the syiyakul kalam-the context of the scriptures word by word, the understanding or interpretation of the Qur'anic scriptures related to a particular section of science, and even all scriptures that discuss issues in different disciplines should be reviewed by the maudhu'iy method. That is, collecting verses of the Qur'an in the same subject, then combining them with each other, until the conclusion stage related to the problem of a verse being studied.³⁵

3. The nature of scientific discovery does not exceed the content of the verse

As mentioned above, many factors influence a person's thinking, including experience and the development of knowledge. The development of science is so rapid that it is only from this factor that the editors of the "Quran"

³⁴ This verse emphatically states that the attempts of humans and jinn to get out of the sphere of heaven and earth will fail. From here there are only two alternatives in interpreting these verses: Firstly, verse 33 of Surah Al-Rahman is talking about the worldly affairs and the ability of man to get out of the environment of the heavens and the earth in the sense of getting out of space. And secondly, the verse is talking about the situation in the Hereafter and man's failure to get out of the environment of the heavens and the earth to escape God's reckoning and calculation. see Shihab, *Membumikan Al-Qur'an*, 32.

³⁵ Shihab, 38.

will have different understandings. However, it needs to be emphasized that the authenticity of what experts in various disciplines say varies greatly. Therefore, starting from the principle of "the prohibition of subjective interpretation of the Qur'an leads to a subjective tendency to interpret", scientific discoveries that are not yet established, cannot be used as a basis for interpreting the Qur'an.

One cannot even make a claim in the name of the Qur'ān against detailed scientific discoveries, because they are not contained in the Qur'ān. The Qur'an does not interpret all science in detail, although there are opinions that state that the Qur'an contains the outlines of all sciences. For example, surah Al-Anbiya' verse 30.

أَوَلَمْ يَرَ الَّذِينَ كَفَرُوا أَنَّ السَّمَوَاتِ وَالْأَرْضَ كَانَتَا رَتْقًا فَفَتَقْنَاهُمَا^ط وَجَعَلْنَا مِنَ الْمَاءِ كُلَّ شَيْءٍ حَيٍّ أَفَلَا يُؤْمِنُونَ.

This verse explains that the heavens and the earth were once one mass and then separated by God, this is a scientific fact that was not yet known to mankind when the verses of the Qur'an were revealed, but the verse does not specify the time and how it happened. Therefore, it is free for people to express their own opinions regarding the "when and how", but if the opinion goes beyond the wording of the Qur'anic verse, then he has no right to express his opinion in the name of the Qur'an. However, this does not mean that he is prevented from understanding the meaning of a verse in line with the development of sciences, unless the understanding and interpretation are in line with the established principles of the science of tafsir.

CLOSING

The relationship between the Qur'an and science can be seen through the many scientific truths described in the Qur'an, which shows the integration between the two. The purpose of understanding the verses of the Qur'an is to show the greatness of God and His oneness and to encourage all people to observe and investigate and to strengthen their faith and trust in Him.

Within the framework of interpretation, the mufasirs tried to combine the findings of scientific theories with the exposure of verses from the Qur'an. However, not

a few mufasirs who end up trapped in the element of subjectivity in the application of interpretation so that sometimes the verses taken as the legitimacy of scientific theory, seem too forced and not in line with the rules of interpretation that have been set. For this reason, at least some principles of interpretation are needed, so that the element of subjectivity of interpretation can be avoided, including: proper mastery of language, scientific discoveries do not conflict with the verses of the Qur'an by paying attention to the context between words or verses, the nature of scientific discoveries does not exceed the editorial content of the verse.

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