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Nidhal Guessoum's Criticism of The I'jaz Approach as A Model for The Integration of Islam and Modern Science

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Abstract: This study discusses Nidhal Guessoum's criticism of the I'jaz 'Ilmi approach as a model for integrating Islam and modern science. According to Guessoum, the I'jaz approach is methodologically problematic because it forces a fit between verses of the Qur'an and temporary scientific findings, and stems from a lack of religious and scientific literacy. Supporters of I'jaz often interpret mutasyabihat verses as muhkam verses, resulting in a single claim that precludes multiple interpretations. Guessoum emphasizes that modern science is empirical, falsifiable, and constantly evolving; therefore, it is inappropriate to treat the Qur'an as an encyclopedia of science. As an alternative, Guessoum offers an integration model through the Softly Overlapping Magisteria (SOMA) approach, which sees a flexible connection between the realms of religion and science without negating each other. This model requires a deep understanding of scientific methods, the philosophy of science, and the rules of Qur'anic interpretation. At the same time, he proposes a multilevel reading method for cosmic verses, which allows for a variety of interpretations according to the level of reasoning, scientific development, and scientific authority of the interpreter. Guessoum criticized five major errors in I'jaz, ranging from the inability to distinguish between facts and scientific theories to the tendency to give narrow meanings to the texts of the Qur'an. According to him, healthy integration must be built through a contextual understanding of the Qur'an, the strengthening of a science curriculum based on the philosophy of science, and intensive dialogue between scientists, scholars, and educators. The ultimate goal is to build a harmonious relationship between modern science and Islam, which preserves the sanctity of revelation while supporting the development of knowledge that is beneficial to the people.

Keywords: Nidhal Guessoum, I'jaz 'Ilmi, Integration of Islam and Science, Cosmic Verse, Multilevel Reading.

Introduction

The main flaw in the i'jaz approach is a lack of literacy in how science works, its fundamental structure, and the problems inherent in scientific methodology. Muffassir does not engage directly with the world of science but interprets the qur'an based on its verses. This immature interpretation of the qur'an is due to the fact that mufassir do not master the sciences of the qur'an, arabic, balaghah, and i'rab. The only verses that can be interpreted are mutasyabihat verses. Within a single mutasyabihat verse, there can be many interpretations and meanings.(NIDHAL GUESSOUM AND STEFANO BIGLIARDI, 2023)

Nidhal highlights mutasyabihat verses or kauniyah verses. Currently, there are many cases of mutasyabihat verses being interpreted as mukammat verses. This is because the knowledge of science or the Qur'an is only half-baked. For example, ahkam verses can be interpreted by four madhhabs. One verse can produce different interpretations. The falsification principle in science must be developed. Even if a scientific theory is correct, it is still possible to develop, change, and shift it so that a new theory emerges.(GUESSOUM, 2011) This has led to the emergence of modern science in this century.

Modern science has continued to develop over the past few centuries. We need to understand the nature of modern science in order to build a rational, reasonable, and acceptable relationship between science and islam. Nidhal states that modern science is not easily found in the Qur'an.(NIDHAL

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GUESSOUM AND STEFANO BIGLIARDI, 2023) A muslim needs to fully understand how modern science works, what its basic methods are, and where its limits lie. The most important characteristics of modern science are empiricism, objectivity, and testing.

Based on what has been described above, Nidhal Guessoum, an astrophysicist from the American University of Sharjah in the United Arab Emirates, provides a logical reconstruction and synthesis in the form of an integration between the principles of science and the principles of Islam regarding Islam and science.(Nidhal Guessoum, 2020) He then elaborates on the critique of i'jaz ilm and offers a multi-level reading to understand the scientific verses in the Qur'an.

Materials and Methods

The research method used in this paper is library research with a descriptive-analytical qualitative approach. The research was conducted through the collection, review, and analysis of various relevant literature, including books by Nidhal Guessoum, scientific journals, and works by muslim thinkers and contemporary scientists discussing science, interpretation, and the integration of knowledge. This approach allows the researcher to comprehensively describe Guessoum's thoughts on his criticism of i'jaz 'ilmi and the model of integration between islam and science that he offers. In addition, this study also uses content analysis to examine the verses of the Qur'an discussed, the views of exegetes, and epistemological arguments in related literature. Using this method, the study seeks to reveal Guessoum's thought patterns, philosophical foundations, and implications in depth through an examination of authoritative texts.

Results and Discussion

Nidhal Guessoum in the discourse on the integration of islam and science Nidhal Guessoum is one of the contributors to the discourse on the relationship between Islam and science.(NIDHAL GUESSOUM AND STEFANO BIGLIARDI, 2023) Nidhal Guessoum's contribution to this discourse can be seen in at least three of his major works, including Islam's Quantum Question, The Young Muslim's Guide to Modern Science, and Islam and Science Past, Present, and Future Debates. In Islam's Quantum Question, Guessoum guides his thinking on the idea of integrating science with the foundations of tawhid and the Qur'an as his approach to the philosophy of science. The concept of god is Guessoum's first foundation in discussing the integration of science and islam. This is because there is no principle more important and central in islam than the concept of god, and there is no rule more fundamental in the structure of islam than the Qur'an. Nidhal explains the importance of the position of the Qur'an in the daily lives of muslims.(GUESSOUM, 2011) Nidhal explains that as science develops, theology should also develop. He argues that the relationship between religion and science cannot be understood in simple terms. He suggests using modern science to bridge the gap between the two. Nidhal emphasizes the importance of the relevance of science and islam. Science can contribute to progress not only materially but also intellectually, culturally, and religiously.(RÜDIGER LOHLKER AND MARGARETA WETCHY, 2021)

Then reinforced by Nidhal's second work, the young muslim's guide to modern science, intended for young muslims, students, teachers, lecturers, and anyone who wants to know about modern science. Nidhal suggests that curriculum reform in islamic education should not only explain the basics of science but also use hermeneutical skills in critically analyzing islamic sources.(NIDHAL GUESSOUM, 2020) His third work, islam and science past, present, and future debates, explains the relationship between religion and science and the debates between the two in the future.

The book islam and science past, present, and future debates explains the interaction between religion and science in the soma model. The neutrality of science towards worldviews and religion emphasizes the fact that the adoption of naturalistic methodology does not imply the absence of god.(NIDHAL GUESSOUM AND STEFANO BIGLIARDI, 2023) The integration of islam and science is a necessity. This necessity is an obligation that must be carried out. The integration

of modern science and Islam is not merely adding religious content in the form of verses from the Qur'an to science teaching, but there is a specific goal to be achieved, namely useful knowledge that brings goodness to oneself and the community in this world and the hereafter. Reflection on science leads to human awareness of gratitude to Allah, and the application of science that maintains balance in the development of nature in accordance with the order established by Allah.(NIDHAL GUESSOUM, 2020)

The multi-level reading of Quranic verses is not intended to interpret the verses or achieve accuracy in interpretation, but to guide individuals in achieving faith according to their abilities. Multi-level reading by researchers is carried out in the form of tadabbur (contemplation) of selected verses related to scientific topics.

Nidhal Guessoum's Model of Integration of Islam and Science

Nidhal Guessoum also provides a model of integration of Islam and science in the form of the SOMA model. The SOMA model is "softly overlapping magisteria."(NIDHAL GUESSOUM AND STEFANO BIGLIARDI, 2023) The SOMA approach is a "hard separation" approach from NOMA (Non-Overlapping Magisteria). Based on Guessoum's personal experience as a teacher, he believes that setting aside religious education and thinking when dealing with scientific ideas, models, and theories is not a good educational approach because it will lead to unchallenged assumptions. Muslims often find it difficult to accept this separation because of their belief that Islam is a complete system that encompasses every aspect of life. That is why secularism is often opposed in Muslim cultures because it is seen as an attempt to suppress religious law in various domains of society, such as law education, social life, etc.(NIDHAL GUESSOUM, 2019)

In their journal, shipman et al. (2002) state that religious values can be incorporated into science subjects. For example, astronomy lessons that discuss a number of astronomical topics present several religious values and views on these scientific topics. In the soma approach, there must be clear guidelines provided to teachers. Training or workshops would also be very useful for teachers in dealing with various situations and attitudes of students. Teachers need to be trained to quickly recognize the most appropriate methodology for each type of question in terms of empirical evidence and the robustness of the theory, the diversity of religious views on a particular topic, critical thinking, etc. Teachers and students should also be encouraged to look at issues from various sociological and historical perspectives, how human views have evolved on various issues.(RÜDIGER LOHLKER AND MARGARETA WETCHY, 2021)

Owen Gingerich from Harvard University, in his book "God's Planet," explores three cases in the history of science where faith and science dramatically overlap. According to stephen jay gould, science and religion should not overlap, and he proposes the idea of non-overlapping magisteria (noma) in his book "rock of ages." In the context of evolution, Stephen Jay Gould formulated his concept of non-overlapping magisteria, which refers to two things that carry out their own affairs and rules. Science and religion are two major cultural identities in the world today, but they use very different evidence and methods even though their goal is coherent understanding. It would be better if they could respect each other and work together rather than compete. It would be a mistake to assume that there is no overlap between magisterial.

A. Criticism of I'jaz 'Ilmi

This school of thought is rejected due to the weak literacy among scientists. Literacy has always been an approach to holy books and religious sources. A true understanding of religious texts is a perfect and correct understanding. It is rare to find a single correct understanding of a religious text. Literalists find contradictions and anomalies in the bible when they try to apply it with their first-level approach. Literalism is related to reading skills associated with codes for converting words into sounds, images, and specific ideas. Part of learning consists of exercises in memorization or the unconscious use of code books. The success of literalism does not come from a single meaning in the bible, but from the

practical knowledge of its theological codes.(NIDHAL GUESSOUM, 2010A)

One source of richness in islamic intellectual history is the diversity of interpretations provided for the same verses. Muslim thinkers often quote the prophet as saying that every verse in the qur'an has seven meanings, starting with the literal meaning, and that only Allah knows the seventh and deepest meaning. Mohamed Talbi, a contemporary historian and scholar of islam, agrees: "There is no single key to reading the Qur'an, but several keys, all of which are at once subjective and objective. (NIDHAL GUESSOUM, 2010B)

One of the most common ideas found in islamic literature is that the qur'an contains all knowledge, sometimes with additional vowels from ancient to modern times. A trend emerged in the twentieth century, claiming that the encyclopedic principle of the qur'an should also be applied to modern science and knowledge, so that everything that is true can be found in the Qur'an if explored correctly.

Nidhal Guessoum himself disagrees with the i'jaz school of thought. I'jaz 'ilmi is a utopia.(NIDHAL GUESSOUM, 2020) He believes that the qur'an has several levels of interpretation, so that many meanings can be found in its verses. Differences in understanding these meanings depend on a person's level of education and the era in which they live. A person may be able to read several scientific facts in a verse without necessarily leading to claims of the miraculous nature of the Qur'an. (NIDHAL GUESSOUM, 2010B) This is also conveyed in Nidhal Guessoum's statement as follows:

> "Furthermore, I consider the i'jaz approach as perilous because it claims that one can identify scientific 'facts' and compare them with 'clear qur'anic statements', which shows clear misunderstanding of the nature of science. (poincare said 'science is not a bunch of facts just like a house is not a bunch of bricks'). Moreover, it distorts in young muslim minds the very nature of science and the approach we should have towards the Qur'an.".(GUESSOUM, 2011)

Nidhal Guessoum said that the i'jaz approach is dangerous because it claims that someone can identify scientific facts and compare them with clear statements in the Qur'an, which shows a real misunderstanding of the nature of science. Nidhal pointed out that this i'jaz theory is flawed, both methodologically and factually, and that this situation must be corrected.(NIDHAL GUESSOUM, 2020)

Some comprehensive criticisms of the methodology of i'jaz according to Nidhal Guessoum include the following. First: many scientific facts that are considered to originate from the Qur'an by supporters of i'jaz were actually already known by doctors, philosophers, and natural scientists of the past. Second, it often attributes inappropriate meanings to certain words in the quran (for example, at-thariq is interpreted as a pulsar, al-jawaril-kunnas is equated with a black hole). Third, it demonstrates a lack of understanding of basic scientific facts and theories, as well as the history of science, which only invites criticism from non-muslims. Fourth, it encourages the belief that the words and verses of the quran contain specific meanings, rather than multiple layers of meaning as asserted by ibn rushd. Fifth, it gives the quran the right to veto scientific statements or findings. We already know that science must be evaluated through experimentation and observation, not by what is considered to be implied in one verse or another.(GUESSOUM, 2011)

One should not rush to find references in the qur'an for scientific discoveries, because discoveries are temporary and limited, while the Qur'an is eternal and absolute. We can find definitive truths in science, and only those truths should be sought in the qur'an.(GUESSOUM, 2011) The Qur'an is not a science encyclopedia. If you want to examine a scientific theory, do not do so by proving whether or not the theory is found in the Qur'an, but rather by reading and intelligently interpreting several parts of the qur'an that are truly consistent with the theory. Nidhal Guessoum offers two insights into the misinterpretation of qur'anic verses related to scientific phenomena: the text of the Qur'an allows for several levels of reading, and before interpreting the text of the Qur'an related to science, one must understand the science and philosophy of science involved.(GUESSOUM, 2011)

The theory of Qur'anic i'jaz is based on erroneous principles, namely: First, the interpretation of Qur'anic verses can be singular and definitive, making it highly comparable to scientific findings and statements. Second, science is simple and clear.

It contains definitive facts that can be easily distinguished from theories. This theory is the product of a confusion that initially arose gradually, but has now become global. Namely, confusion between legitimate efforts to combine textual interpretation with newly discovered human knowledge and the principle that scientific results, laws, and discoveries, from the most general to the most specific, even mysterious ones, can be found in the Qur'an and even in the hadith if efforts are made to re-examine these verses scientifically.

If a verse of the Qur'an is interpreted as mukammat when it is actually a mutasyabihat verse, then the theory is falsified. For example, in Q.S Al-Baqarah verse 29, Q.S Hud, Q.S Al-Mu'minun verse 17, cosmologist Al-Hilly interpreted these verses. Al-Hilly viewed these verses as mukammat, so he interpreted them singly and did not open up his interpretation in layers. This can be seen when he interpreted the verse as follows:(GUESSOUM, 2011)

> "Before God created the universe, His throne was upon the water, i.e. water vapor in space, for at that time there were no ethereal heavens, and when He created them gradually one by one, He let His throne be borne over the ethereal heavens.."(Guessoum, 2011)

Al-Hilly seems completely uninterested in modern scientific findings, for example when he says that "creating the earth in two days" is equivalent to two thousand years, because one day for God is equivalent to a thousand years for humans. Finally, Guessoum stopped reading the book when he found this statement.(Guessoum, 2011)

If we look at the verses quoted by the author, they are mutasyabihat verses, the analysis of which requires attention to linguistic aspects, understanding of balaghoh, I'jaz ilmi literature, and so on. This makes it possible to offer alternative interpretations or at least not claim that there is only one interpretation. Understanding that these verses are mutasyabihat and not mukammat opens up the possibility of multiple interpretations rather than a single one. However, these multiple interpretations are not without limitations.(Guessoum, 2011)

In addition to the removal of religious values, this integration was also carried out due to the assumption that religion was merely a routine for performing worship without attempting to study the essence of science itself. Nidhal Guessoum wanted to raise important issues regarding the essence of science, the essence of the text of the Qur'an and its interpretation, and the relationship between the Qur'an and science. Then a Muslim can also study the philosophy of science and relate it to Islam, and revive the discussion about the role and status of science in Muslim society so that a harmonious synthesis between modern science and Islam can be achieved.(Guessoum, 2011)

Errors in I'jaz are also found in modern science, such as cosmology, astronomy, and biology. These are three important fields of modern science, due to the major revolutions they underwent in the last century, leading to topics that tend to raise religious issues.(Nidhal Guessoum, 2020) Cosmology became scientific and modern after the publication of Einstein's theory of general relativity in 1915. Previously, cosmology was largely speculative thinking, a mixture of astronomy, philosophy, and theology. Cosmology became scientific because it could make predictions, even though testing through observation could not be done directly. The first astronomical observation was made by Edwin Hubble, who proved that there were galaxies other than the Milky Way. Georges Lemaitre was the first person to realize that the expansion of the universe implied the beginning of something very small, called the "primordial atom" in the form of energy, or even a single point. The Big Bang is interpreted as the entire theory of the physical evolution of the early universe, so we have a very strong and complete theory, supported by observational evidence.(Nidhal Guessoum, 2020)

The idea of biological evolution, namely that animals and plants can change over long or short periods of time in various environments, has existed since ancient times. It is understood that the environment encourages animals and plants to adapt to changing conditions. Charles Darwin (1809-1882) realized that the environment is only responsible for changes that occur in living things through mutation. Darwin knew that changes could be positive or negative, useful or harmful to living things, and that the environment selected useful changes because they gave their owners an

advantage in survival over those who did not undergo change or underwent harmful changes. Evolution is the result of two effects: mutations that alter genes and natural selection by the environment, including limited resources for life and the potential for population growth.(Nidhal Guessoum, 2020)

In astronomy, the most frequently discussed field today is the search for exoplanets, especially those the size of Earth in the habitable zone, and the biggest goal is to find life, primitive or advanced, anywhere in the Milky Way. Optimistic astronomers believe that this grand goal will be achieved within the next 10 years, while others think it may take several decades. In cosmology, there are two very big questions awaiting definitive answers from researchers, namely those related to dark energy, which is responsible for the acceleration of the expansion of the universe, discovered in 1988 and confirmed by a number of measurements of space objects by satellites, and dark matter, a type of massive object that fills the universe.(Nidhal Guessoum, 2020)

B. The Concept of Multilevel Reading

The principle of layered reading is that the verses of the Qur'an must be read in layers, in stages, according to a person's level of reasoning. Thus, there is no single interpretation. Reading follows the level of human reasoning and the conditions of society. It is this diversity of understanding of the verses of the Qur'an that has become a source of intellectual wealth in the golden age of Islam.(Nidhal Guessoum, 2020)

Nidhal Guessoum conducts a multilevel layered reading based on axioms and principles, including that the Qur'an allows for multiple meanings, that understanding of natural phenomena and science will change over time, and that the Qur'an is not inaccurate or wrong. To resolve differences between the statements of the Qur'an and those of science, what must be done is to find words in the Qur'an that correlate with science. Then, if there are no words whose meaning fits with science, science must be renewed, and a meaning that is scientific in nature must be found.(Nidhal Guessoum and Stefano Bigliardi, 2023)

This multi-level interpretation must be carried out by parties who have the authority and capacity, such as mastery of the Qur'an, Arabic language, interpretation, and science, in order to obtain appropriate results. Interpretation that is not carried out by authorities will result in misunderstandings. Therefore, if interpretation is not carried out by individuals or institutions that have authority in terms of knowledge and ability, it would be better to simply reflect on the text. The knowledge referred to here is the ability to understand the Qur'an, hadith, philosophy of science, philosophy of knowledge, etc.(Ahmad Dallal, 2010)

According to Nidhal, the main principle in the philosophy of knowledge is the Qur'an. Humans are gifted with the ability to learn and understand things. It is this ability that makes them caliphs on earth. The concept of 'aql appears 49 times in the Qur'an, always presented in an active form, not as an abstract idea or passive human ability. In principle, humans can study anything, including the study of the universe, because knowledge is broad, comprehensive, and covers various fields.(Makiah, 2021)

Observation of the Qur'an in relation to knowledge and how to acquire it allows us to discover several terms that refer to the hierarchy of knowledge methods themselves. Some of these are listening, observing, contemplating, thinking, considering, reflecting, and others mentioned dozens of times in the Qur'an. Therefore, humans can extract the essence of knowledge from the verses of the Qur'an with varying levels of knowledge according to the different meanings of the terms of knowledge themselves, such as believing, questioning, thinking, understanding, realizing, confirming, and others.

According to Nidhal, the Qur'an also emphasizes the dangers of reasoning without evidence. Evidence, according to Ghaleb Hasan's interpretation of the Qur'an, is convincing evidence or clear and strong arguments. Evidence cannot be obtained from tradition or the views of previous generations. Both statements and rejections require evidence. Meanwhile, according to the Qur'an, the purpose of knowledge is to elevate humans from a level of mere belief to a higher level, namely knowledge, and to improve morals with full conviction in the existence of God.(Guessoum, 2011)

According to several authors, around 750 verses of the Qur'an are related to natural phenomena.

Some of these verses strongly encourage and even recommend the study and exploration of the universe. By focusing attention, observing, and thinking extensively about astronomical phenomena, one can prove the oneness of God and get to know the creator more deeply, as well as his wisdom and subtle design.(Guessoum, 2011)

According to Nidhal, the philosophy of science in the Qur'an refers to two things. First, the exploration of nature, from observation to serious research, shows the order and purpose of the cosmos. Second, the study of the universe must lead to a certain unity that leads to faith in the Creator.(Makiah, 2021)

In reading, there are several rules in scientific I'jaz for the validity of every correspondence found between scientific results and verses and statements in the Qur'an, including the guarantee that scientific discoveries have been recognized as permanent facts by experts, the accuracy of the text's meaning regarding the scientific facts provided, without excessive interpretation of the text.

In the book Jawahir Al-Qur'an, it is stated that the interpretation of several verses of the Qur'an requires the use of several disciplines, such as astronomy, astrology, and medicine. In the book Ihya' Ulum al-Din, he quotes Ibn Mas'ud as saying that in order to know the knowledge of scientists of the past and present, we must contemplate the contents of the Qur'an.(Tim Tafsir Ilmiah Salman ITB, 2014)

Modern science should be rooted in a more comprehensive Islamic science and philosophy that is integrated with religious sciences, but unfortunately this integration has not been achieved. As a result of science being separated from its spiritual foundation in religion, technology as an application of science has become uncontrolled, causing disastrous impacts on the environment, society, and the psyche.(Nidhal Guessoum, 2020)

There is criticism related to scientific interpretation that questions how we can reconcile something absolute and eternal like the Qur'an with something relative and temporary like modern science. This shows that the critics do not know that every advancement in modern science always leads to perfection, where new theories always make old theories a limited part of the truth in the new theory. Therefore, science moves forward toward complete knowledge. Consequently, the compatibility between the Qur'an and science will not change with the development of science.(Nidhal Guessoum, 2020)

It should be noted that scientific interpretation is limited to explaining the descriptions of the Qur'an about the physical world, or the world according to the terminology of the Qur'an. We should not explain metaphysical phenomena in the Qur'an, such as the afterlife, using modern scientific theories that are objectively empirical in nature and concern the physical aspects of the universe. Science cannot explain non-physical matters such as the values and norms that govern human life as contained in the Qur'an. Another criticism relates to the fact that many scientific discoveries have been made by non-Muslims or disbelievers. This also encourages Muslim scientists to creatively discover new natural phenomena that have actually been described by the Qur'an but have not yet been discovered by modern science.(Nidhal Guessoum, 2020)

The goal of Islamic science is to understand the true nature of all things as given by God. Islamic science also aims to reveal the unity of natural laws and the interrelationship of all parts and aspects as a reflection of the unity of divine principles. Understanding nature and the laws of each species means understanding Islam or the submission of these species to the divine will because, according to the Qur'an, all creatures other than humans are Muslims. With this understanding, scientists become closer and more submissive to the Creator. The goal of benefit for the people in the form of material products is a derivative of the ultimate goal of reaching the Creator. This is the basis of Islamic axiology.(Nidhal Guessoum, 2020)

Modern science has moved towards deism, the belief that God started the universe but then left it to run itself. If analogized with a clock, God's role seems to be limited to that of a clockmaker, who then remains silent in the distance and lets the clock run itself until it breaks. God is retired, deus otiosus, because God no longer has any work to do.(Nidhal Guessoum, 2020)

C. Multilevel Reading Method

The integration of Islam and modern science mostly occurs in education and global scientific issues. Educational problems can be addressed by reforming the curriculum, adding history and philosophy of science to science teaching, conducting layered reading and interpretation of Quranic verses related to natural and scientific phenomena, and improving curriculum quality through seminars, discussions between scholars, scientists, and educators, and publishing science books with an Islamic framework. Then, to address global science issues, collaboration in contemporary scientific research with Western scientists and international research institutions can be carried out, as well as dialogue between scholars and scientists discussing science and technology issues that have theological, philosophical, and practical implications for Muslims globally. Problems in the field of education and global science issues open the door to ijtihad in the field of science, which aims to encourage the spirit and tradition of Islam among Muslims. Ijtihad is needed both to motivate internal improvements and to address global issues affecting the Muslim community.(Guessoum, 2011)

There are several principles that must be implemented to ensure that the process does not deviate from its intended purpose, including First, the true nature of science must be explained and upheld at all times. Teachers and students should not be allowed to change science or compromise scientific methodology in order to "adapt" established scientific knowledge to religious ideas. Second, teachers must explain and emphasize to students what is established in science and what is still unproven or being researched and debated among scientists. Third, regardless of the worldview held by teachers, it is very important that they always strive to remain neutral and also explain and maintain the neutrality of science towards worldviews. In other words, even though science adopts a naturalistic methodology (i.e., all physical phenomena must be explained solely by scientific causes), this does not imply that God does not exist or that the world has no purpose or plan behind it. this principle only states that philosophical questions such as the existence of God, existence, etc. are outside the scope of science and leave them open to various interpretations that may be theistic, agnostic, or atheistic.(Guessoum, 2011)

Several stages in the multilevel reading of verses in the Qur'an about various natural phenomena are: First, selecting a cosmic verse; Second, presenting dozens of pages containing scientific information that can be found in any encyclopedia(Guessoum, 2011); Third, then declaring that there really is a miracle (I'jaz) because the verse has predicted all scientific facts. For example, Surah Al-Kahfi verse 15 reads, "Indeed, I swear by the stars or planets that revolve and set. These verses are considered to refer to black holes, so he provides 20 pages of text and color images before concluding that the Qur'an has predicted the existence of black holes.

There are several stages of layered reading of the Qur'anic text. First, by contemplating the Qur'an. Second, by reading tafsir books such as Tafsir Ibn Kathir, Tafsir Jawahir, Tafsir Salman, and other tafsir books. Third, by reading science books written by classical Muslim scientists. Fourth, by reading modern science books rewritten by contemporary Muslim scientists. Fifth, by reading the philosophy of science.

Several other stages of interpretation can be found in Salman ITB's interpretation. For example, in Surah Al-Tariq, it is interpreted as a celestial object that pierces. The first verse reads, "From the sky and coming at night." The second verse asks, "Do you know what comes at night?" The third verse refers to "a star whose light pierces." The first step taken by the exegetes is to conduct a linguistic analysis. In Arabic, the term tariq is used to refer to a guest who rarely appears and arrives suddenly at night. According to Hamka in Tafsir Al-Azhar Juz 30, the meaning of al-tariq is "A person who knocks loudly on the door in the middle of the night so that the owner of the house will quickly wake up because he brings important news." The next verse, when translated, means "And what makes you know about al-tariq. Usually, the words wa ma adraka are used to explain things related to the Day of Judgment or something mysterious like lailatul al-qadr. The third verse, when translated literally, means "The heavenly object that pierces." The word saqib comes from the verb saqaba, which means to pierce.(Tim Tafsir Ilmiah Salman ITB, 2014)

When discussing Surah Al-Tariq, experts say, "Some interpreters argue that al-tariq refers to a

comet that shook the Eastern world during the Prophet's preaching." In Tafsir Al-Jawahir, it is explained that the word tariq literally means a person who travels on the road at night or during the day. Then this word is used for animals that appear at night. Then there is Sheikh Yusuf Al-Hajj Ahmad, in the book Al-Qur'an Kitab Sains dan Medis (The Qur'an: A Book of Science and Medicine), who concludes that al-tariq is a celestial object that has two criteria, namely that it is a star and that it pierces. At-tariq is a rare celestial object that we cannot see in the sky every night, because it comes from time to time or periodically. The second verse reinforces the reasoning that thariq is an "unusual" or "rare" celestial object, namely a comet that appears once in tens or hundreds of years. The third verse further reinforces the interpretation that al-tariq is a comet, with strong evidence from astronomical research.(Tim Tafsir Ilmiah Salman ITB, 2014) This is the interpretation made by the Salman ITB team. This interpretation was certainly made by mufassir or scientists who have a strong scientific background and authority.

Conclusions

The integration of islam and science is necessary, not through scientific miracles, but through a multi-level reading method of the scientific verses in the qur'an. This way, science can continue to develop and islam can maintain its sanctity.

Offering an integration model is permissible, but religious literacy and scientific literacy must not be minimized. Minimal literacy in religion will lead to misinterpretation, and minimal scientific literacy will lead to ignorance of how science works.

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