

CHAPTER II

SCIENTIFIC INTERPRETATION

The theme of the Qur'an and the new sciences become important themes in studies of Al-Qur'an nowadays. Many Muslim scholars, even non-Muslim scholars, who engaged in the study. There are many studies relating to the substance of empirical science and its relation to the Qur'an, how the boundaries of each of these two things, first the contradictions between them. In addition, scholars and public attention to these studies on the other side, and a wide range of examples contained in Al-Qur'an as a whole led to new methods of interpretation is called by the name "al-Tafsir al-'Ilmiy" (Scientific Interpretation). Here is used the term *tafsir*³⁹ and *'ilm*.⁴⁰ Usually the number proposed for introduction into this study. For example, is all human knowledge contained in Al-Qur'an? What is the purpose of scientific signs in the Qur'an?

A. Science Classification

Scholars classify the many kinds of science. According to al-Farabi there are five classes:

1. Language Sciences.
2. Logic.
3. Education

³⁹ In the language says the Tafsir (تفسير) derives from the word فسر which mean: explain, expose and reveal or explain the meaning of the abstract. الفسر word means revealing something that is closed, Al-Qaththan (1992): 450-451. Terminologically, Tafsîr means Sciences to identify al-Qur'an revealed to Prophet Muhammad Saw. and explain its meaning as well as law-making and its meaning, Az-Zarkasyi, (1972): I, 13. Another definition of the notion put forward by Al-Tafsir Shabuni (1985): 66, that is the Science of Tafsir Al-Qur'an discuss about one volume in terms of its understanding of the purpose of God according to human capabilities.

⁴⁰ According to *Kamus Besar Bahasa Indonesia* (Depdikbud: 1998): concluded that science is a collection organized knowledge systematically, using certain methods.

In the Qur'an found the words *'ilm*—in its various forms—which is repeated as many as 854 times. In addition, many other verses of Al-Qur'an that advocate for the use of a mind, reasoning, etc., as suggested by the verses that describe barriers progress of science, including: (1) Subjectivity: (a) likes and dislikes (see, Surah 43:78; 7:79), (b) taqlid or follow without cause (see, Surah 33:67, 2:170). (2) delusion and unfounded allegations (see, Surah 10:36). (3) Hurry in taking decisions or conclusions (see, Surah 21:37). (4) arrogant attitude (reluctant to seek or accept the truth) (see, Surah 7:146).

4. Natural Science and Belief
5. Religious Sciences, Fiqh and theology.⁴¹

Another division of the nature of science is based on the method of study:

1. Empirical studies that use the experience as the basis for the study. These studies include: the natural sciences such as Physics, Chemistry and similar sciences.
2. Rational sciences that use reason to reason such as philosophy, mathematics and logic.
3. Sciences are taken for granted (*ta'abbudi*).
4. *Syuhûdiy* science that uses methods such as the testimony of the divinity of sciences for the prophets and saints.

The authors mean by the word "science" in accordance with the scientific method is the interpretation of empirical sciences.

B. Scientific Interpretation Methods

The word "*method*" comes from the Greek "*methodos*", which means way or road.⁴² In Arabic it was translated to '*manhaj*. and '*tariqat*.' Meanwhile in the Indonesian language, the word means: "an orderly way and was thinking fine to achieve the purpose [in the science and so on]; how to work systematically to facilitate the implementation of activities to achieve something of a predetermined objectively."⁴³

Mufassir threw a number of technical understandings on the interpretation of scientific method, i.e.:

1. When talking about the method of the theologians, philosophers and those who attempt to compromise between Al-Qur'an and the new sciences, and those who try to take things that are in line with their flow and with interpretations of the verses that seem contradictory to what was decided

⁴¹ al-Farabiy, *Ihshâ' al-Ulûm*, p. 111-120.

⁴² Fuad Hassan and Koentjaraningrat, *Beberapa Asas Metodologi Ilmiah*, in Koentjaraningrat [ed], *Metode-metode Penelitian Masyarakat*, (Gramadeia, Jakarta, 1977), p. 16.

⁴³ *Kamus Bahasa Indonesia*, vol. I, (Balai Pustaka, Jakarta, 1988), p. 580-581.

by science, al-Allamah al-Thabâthabaiy said: “The way of this study is more appropriately called by the application, not interpretation.”⁴⁴

Al-Allamah refers to a specific part of the classification of scientific interpretation, that is to bring scientific theories and apply them to al-Qur'an. This section is included in the rational interpretation (Tafsîr bi al-ra'y), which was banned by a lot of history that comes from the *ma'shum* priests. In addition, al-Allamah itself utilizes a number of scientific findings in many places in its interpretation. Therefore, it is impossible to regard al-Allamah al-Thabâthaba'iy including those that opposed the methods of scientific exegesis of Al-Qur'an.

2. Ayatollah Ma'rifat said: “The style of interpretation such as this leads to efforts to make the Qur'an contains signs of passing on secrets of the universe to be explored by modern science. He added: "One effect of this trend is an enticing interpretation of its advocates, is that many people are captivated by this tendency to produce for us a lot of books and writings by the authors tried to make Al-Qur'an contains many science boom and space, and making it as evidence in a way directly or indirectly, owing to their belief that this is the explanation from one side of the truth of al-Quran, miracles of the Qur'an and conformance to stay there.”⁴⁵ In his the statement. There were indications of special sort of scientific interpretation exactly as mentioned by al-Allamah al-Thabâthabi'iy.
3. Dr. al-Dzahabiy explains his position on the scientific interpretation when it states: “What we mean by scientific interpretation are interpretation that use the scientific terms for the expressions of Al-Qur'an, and are trying to produce a variety of scientific and philosophical views of these expressions.”⁴⁶

In the text above can be founded same statement with the first. Only in this text alluded to the classification of scientific interpretation. Perhaps

⁴⁴ al-Thabâthabaiy, *Al-Mizân fî tafsîr al-Mizân*, vol. I, p. 7-8.

⁴⁵ Al-Dzahabiy, *Al-Tafsîr wa al-Mufasssîr fî tsawbihi al-Qasyîb*, vol. II, p. 443.

⁴⁶ *Ibid*, vol. II, p. 474.

partly is acceptable, such as using science because it and its results are considered contained in Al-Qur'an. Most of the other is the effort to produce scientific theories of Al-Qur'an, and use science to understand Al-Qur'an.

4. Al-Ustadz Amin al-Khûliy believed that the scientific interpretation: an interpretation of the interpreter is trying to reveal some old science and new from Al-Qur'an. The commentators see in Al-Qur'an there are areas that include science and the humanities about philosophy, anatomy, surgery, astronomy, astrology, nerves, and commentators who use the scientific terms for the expressions of Al-Qur'an."⁴⁷

In Amin al-Khuli statement above we did not find any indication about the third part of which we have alluded to above, i.e. using science without imposing it in the Qur'an.

5. Among the scholars who mention the scientific interpretation of the definition is al-Ustadz Abdurrahman al-Akk. He defined it as follows: "Type of this tafsir is based on description and explanation of the signals of the Qur'an which refers to the grandeur and majesty of God's creation in organizing and arranging."⁴⁸

This approach to interpretation as the closest to what we want about scientific interpretations. Only here do not distinguish between truth and suspicion.

Beginning of the emergence of this type of interpretation occurs in the second century, and then continues to grow rapidly as one method of interpretation, and is used by many commentators. Early attention to this type of interpretation occurred in the last 20th century, until the scholars in the disciplines of science began to interpret the verses by using the empirical sciences, even if the purpose of each of them different.

⁴⁷ Amin al-Khuli, *Manahij al-Tajdid*, p. 287; *al-Mufasssirun hayatuhum wa manhajuhum*, Muhammad Iyazyi, p. 93.

⁴⁸ Al-'Ak, Khalid Abdurrahman, *Ushûl at-Tafsîr wa Qawâ'iduhu* (Beirut: Darun Nafa'is, 1986). p. 217.

C. Scholar Opinions on Scientific Interpretation

There are three opinions regarding the issue. The writer will mention briefly:

1. Supports opinion

Writer will mention figures that support the scientific interpretations among scholars engaged in the sciences of the Qur'an, mufassir and philosophers. Among them are:

- a. al-Shaykh al-Ra'is Ibn Sina (270-428 AH), a famous Iranian physician and philosopher. He said that in interpreting the word "arasy".⁴⁹

Ibn Sina said that word "Arasy" was the star of all stars (ninth star in the Ptolemaic astronomy). While angels (mentioned in number only in the verse, namely *tsamaniyyah*) means eight stars (Moon, Sun, Venus, Mercury, Saturn, Jupiter, Mars, and the stars).

- b. Abu Hamid al-Ghazali (d. 505 AH) believes there is a lot of science in Al-Qur'an as he mentions in the book "*Ihya 'Ulum al-Din*". He pointed to the few scholars that there are 277 science. Because, every word there is science, then multiplied by four, each have inner and outer, there are limits and prefix.⁵⁰ In the book "*Jawâhir al-Qur'an*" he mentions that many of the sciences such as medicine, astronomy, geography, fauna, anatomy, and other magic there is essentially part of Al-Qur'an. He gave many examples of the verses of Al-Qur'an that describes her relationship with other sciences.⁵¹
- c. al-Fakhr al-Râziy (d. 606 H). He applied the scientific problems of Al-Qur'an. Regarding the earth was quiet⁵² he based on surah al-Baqarah: 22.⁵³

⁴⁹ Surah al-Haqqah: 17;

... وَيَحْمِلُ عَرْشَ رَبِّكَ فَوْقَهُمْ يَوْمَئِذٍ ثَمَنِيَّةٌ.

⁵⁰ al-Dzahabiy, *al-Tafsir wa al-Mufasssirun*, vol. II, p. 426.

⁵¹ Al-Ghazaliy, *Jawâhir al-Qur'an*, Chapter V, p. 20.

⁵² al-Fakhr al-Râziy, *Mafâtîh al-Ghayb*, vol. II, p. 94.

⁵³ Surah al-Baqarah: 22;

الَّذِي جَعَلَ لَكُمُ الْأَرْضَ فِرَاشًا ...

He explained the opinions relating to the ancient astronomical works of Ptolemy and scholars of ancient India, China, Babylonian, Egyptian, Roman and Sham in the rest of verse.

- d. Abu al-Fadl ibn al-Mursiy (570-655 H). He believes that Al-Qur'an contains the early generations' sciences and rear. He attempted to produce medical science, debate, architecture, algebra and interviews, from Al-Qur'an. He gave evidence of the verses of Al-Qur'an regarding garment, trade, hunting, mining, plants and others.
- e. Badr al-Din Muhammad ibn Abd al-Zarkasyi (d. 765 AH), author of "*al-Burhan fi Ulum al-Qur'an*". He believes that it is possible to produce all the sciences from the Qur'an. He said: Aged 33 years based on the Prophet Isa verses of Al-Qur'an which reads: "*Qāla inni abdullah*". This verse contains the same number of letters."
- f. Jalal al-Din al-Suyuti (d. 911), author of *al-Itqan fi Ulum al-Qur'an*". He believes also that Al-Qur'an contains the whole science. He gave an example from the Qur'an for it. He said that the Prophet Muhammad's age was 63 years old, based on surah al-Munâfiqûn: 11.⁵⁴ The sequence of the verse in Al-Qur'an is 63 years old.
- g. al-Allamah al-Majlisiy (d. 1111 AH), author of "*Bihar al-Anwar*." He spoke at a glance about the interpretation of several chapters from the book. He mentioned that there is no contradiction between the "seven heavens" in verse 29 of al-Qur'an al-Baqarah of the letter with which there are nine stars in astronomy, because the star's eighth and ninth in the language of Al-Qur'an is the *Kursî* and the *Arasy*.⁵⁵
- h. al-Mulla Sadr al-Syayrâziy (d. 1050 AH), a famous philosopher. He emphasized the possibility of such commentaries.⁵⁶

⁵⁴ Surah al-Munâfiqûn: 11

وَلَنْ يُؤَخِّرَ اللَّهُ نَفْسًا إِذَا جَاءَ أَجْلُهَا ۗ وَاللَّهُ خَبِيرٌ بِمَا تَعْمَلُونَ

⁵⁵ al-Allamah al-Majlisiy, *Bihar al-Anwâr*, vol. 57, p. 5.

⁵⁶ Muhammad bin Ibrahim Sadr al-Dîn al-Syayrâziy, *Tafsîr al-Qur'ân al-Karîm*, vol. II, p. 289-293.

- i. al-Sayyid Ahmad Khan al-Hindiyy (1817 - 1898 AD) and al-Sayyid Amir Ali (1265 - 1367 H). Both are scholars from India. Both assert that there are social and physical benefits of each prayer, fasting, zakat, and pilgrimage. Both consider the potential of nature such as water, wind and rain cloud is a kind of angel. He rejected the possibility of miracles and the influence of prayer. The two engaged in a polemic with al-Sayyid Jamal al-Din al-Asad Abadiyy that refute them in India .
- j. al-Thanthâwiy (d. 1862 AD) is too excessive in the use of science in his commentary " al-Jawâhir fi Tafsir al-Qur'an" He attempted to produce the spirit of science to present the verses (67-72) from surah al-Baqarah. He talked about a lot of science on the sidelines his tafsîr.⁵⁷
- k. Abd al-Razzaq Naufal, the famous Egyptian writers. He has many writings about scientific interpretations. Among them: al-Qur'an wa al-Ilm al-Hadith (Al-Qur'an and Modern science), *Islam wa al-Ilm al-Hadith* (Islam and Modern Science), *Bayn al-Din wa al-Ilm* (Between Religion and science).
- l. al-Sayyid Hibbah al-Din al-Syahrastâniy (1301 - 1369 H). In his book "Al-Islam wa al-Hay'ah (Islam and Astronomy), he showed that the earth was moving ⁵⁸ He believes that the support and affirmation of the findings of science and through religion and scholars will lead human faith grows stronger.⁵⁹

2. Scholars that rejected Science Interpretation:

- a. Figure of Maliki sect in Andalus, Abu Ishaq al-Syathibiy (790 AH) in his book "al-Muwâfaqât" reject and refute the scientific interpretation of their arguments that support it. He said: The Arabs when Al-Qur'an

⁵⁷ al-Thanthâwiy ,*Al-Jawâhir fi Tafsîr al-Qur'ân*, vol. I, p. 86-89.

⁵⁸ Surah al-Zukhruf: 10.

الَّذِي جَعَلَ لَكُمُ الْأَرْضَ مَهْدًا وَجَعَلَ لَكُمْ فِيهَا سُبُلًا لَعَلَّكُمْ تَهْتَدُونَ

⁵⁹ Hibbah al-Dîn al-Syahrastâniy, *al-Islâm wa al-Hay'ah*, p. 110.

downed already have sciences like astrology, knowledge of the times the rain, medicine, rhetoric, eloquent, shamanism, geomancy, forecast, and many others. Islamic sciences have classified it into two, the science is right, and Islam gives a modification of the sciences, and science that is not true (shamanism, prophecy, etc.). Islam explains the benefits and dangers of each of these sciences, and then Islam gives such examples in Al-Qur'an.⁶⁰ After that, al-Syathibiy said: "The more people exaggerate in giving its claim against Al-Qur'an. They relate to the Qur'an all the science that is said to belong to the older generation or later, such as natural sciences, education, logic, and science, this is not true." After that, he argued about it, he said: 'No one among the ulama salaf who claim like that. Al-Qur'an appears only to explain the problems the hereafter and secondary issues.'⁶¹

After that, he rejected the argument by the supporters of scientific interpretation. They use surah al-Nahl: 89,⁶² and surah al-An'âm: 38.⁶³

- b. al-Shaykh Mahmud Syaltut (1893 - 1963 AD). He was al-Azhar University scholars. He attacked with hard against this kind of interpretation in his writings published in the magazine "Al-Risalah", published in 1941 AD He said: Such an understanding of Al-Qur'an do not doubt wrong. Therefore, God does not reduce the Qur'an to Al-Qur'an into a book that speaks to man about the theories of science, the arts and subtleties of the kinds of knowledge. It is certainly wrong because the views are relevant and encourage people who interpret it to make an interpretation of Al-Qur'an with the interpretation of

⁶⁰ *Al-Tafsîr wa al-Mufasssîrîn*, vol. II, p. 658, cited from "al-Muwâfaqât", vol. II, p. 69-76.

⁶¹ *Ibid*, p. 688.

⁶² Surah al-Nahl: 89.

⁶³ Surah al-An'âm: 38.

... تَبَيَّنَا لِكُلِّ شَيْءٍ ...

... مَا فَرَّطْنَا فِي الْكِتَابِ مِنْ شَيْءٍ ...

forced and incompatible with miracles. This is wrong, because it would make Al-Qur'an to mess around with science issues in each space and time. Science is not familiar with certainty, static and final word. Could be present in the view of science is true but tomorrow has become a superstition. If we apply Al-Qur'an to the problems of scientific change that, we certainly made the Qur'an will fall up with these problems and will be caught in a mistake, and certainly we will plunge ourselves into complicate situation in defense of Al-Qur'an.⁶⁴

- c. Dr. al-Dzahabiy, one of the great teachers in the field Ulum al-Qur'an wa al-Hadith in al-Azhar University . He is the author of "*al-Tafseer wal-Mufasssirun*." He followed al-Syathibiy in rejecting the scientific interpretation. He said: "According to our beliefs, the truth is al-Syathibiy, because the postulates put forward to support his claim is a strong argument, there are no weaknesses and defects. Because, the answer to the arguments put forward by those who are against is the right answer and totalled so that there can be no other arguments."⁶⁵
- d. There are some people who reject the scientific interpretation. Their names appeared on a number of books, among them:
 - 1) al-Amin al-Khûli Ustadz (1954 AD).
 - 2) Al-Ustadz Mahmud al-Aqqâd (1964 AD).
 - 3) Al-Ustadz Muhammad Azzah Darûzah (1888 AD).
 - 4) al-Shaykh Muhammad Abd al-Adhim al-Zarqâniy, author of "*Manâhil al-Irfan fi Ulum al-Qur'an*."

3. Scholars who accept with the term of requirements

There is a group of scholars who receive certain types of scientific interpretation with certain requirements, and reject the other types. They are:

⁶⁴ *Majallah al-Risâlah*, 1941 M, cited from "*al-Tafsir al-Ilmi fi al-Mîzân*, Ahmad Umar Abu Hajar, (Dâr Qutaybah) p. 299-302,

⁶⁵ al-Dzahabiy, *al-Tafsir al-Ilmi fi al-Mîzân*, p. 297

- a. Sayyid Qutb (1906 - 1933 AD), author of the tafsir "*Fi Dhillâl al-Qur'an*" made opinion to the scientific interpretation. He said: I was very surprised with the people who easily linked to al-Qur'an to a few things, though Al-Qur'an far from that. They tried bringing forth the parts of the medical sciences, chemistry, astronomy, etc. .. They thought that they would thereby glorifying al-Qur'an." After that, he mentions two kinds of different types of interpretations. The first kind he had received, the others he had rejected."⁶⁶
- b. Muhammad Mustafa al-Marâghi (1881 - 1965 CE), Shaykh al-Azhar. He is a scholar of Egypt and Sudan . He has had two different attitudes regarding the scientific interpretation.

In providing an introduction to the book "*Al-Islam wa al-Thibb al-Hadith*" (Islam and Modern Medicine) by Abd al-Aziz Ismail, he said:

"I'm not saying that all science is there in detail in Al-Qur'an. On the contrary, Al-Qur'an contains the general basics for everything in which knowing and run things until it becomes mandatory for the perfection of physical and spiritual. The opened door of science for variety scholars so they can explain the parts of the human sciences in accordance with their time."⁶⁷ He also said: "The interpretation of Al-Qur'an in accordance with scientific theories of uncertainty is a danger for Al-Qur'an ... because it is not correct to make the scientific theories as a reference for al-Qur 'an. Then, he said: "We should not draw the verses of the Qur'an to the sciences, or to connect science with the verses. However, Al-Qur'an can be interpreted by science if it is necessary in line with the facts that must be."⁶⁸ Al-Maraghi using scientific interpretation several times. Concerning the understanding

⁶⁶ Sayyid Quthb, *Fî Dzîlâl al-Qur'an*, vol. I, p. 260.

⁶⁷ Acknowledgement al-Syaikh al-Marâghiy in "*al-Islâm wa al-Thibb al-Hadîts*, cited from *al-Tafsîr wa al-Mufasssîrîn*, vol. II, p. 519.

⁶⁸ *Ibid*, p. 519

surah Luqmân: 10,⁶⁹ he said it's meant was the power of gravity (*quwwah al-Jadziyyah*).⁷⁰

- c. Ahmad Umar Abu Hijr, author of "*al-Tafsir al-Ilmiy fi al-Mizan*". He explores the arguments from both sides. He chose an opinion that can be described in detail. He said: "The opinions can be accepted after seeing standpoint of both parties is that they are calling for Al-Qur'an to be far from a scientific interpretation is exactly right, if this interpretation is based on conjecture, or the haphazard manner in giving interpretations. However, if this interpretation is based on a clear opinion, sustained by the knowledge that convinces and certainly, there is no reason not to take advantage of science in explaining the facts of Al-Qur'an. In another part he says: We take a moderate path, as long as Al-Qur'an is the words of Allah and the nature of God's creation, of course, the verses of Al-Qur'an will be consistent with the facts of science.
- d. al-Allamah al-Thabâthabâ'iy (1340 H), including philosophers and contemporary mufassir, referring the famous interpretation "of al-Mizan". In this matter he says: "In times of today a new pattern emerged in the commentary. Namely a group of people who converted to Islam a result of their struggle in the natural sciences based on something that empiric, tends to follow the flow of empirical first European philosopher, or follow the originality of the work flow. They mentioned that religious knowledge can not be contrary to the methods that are justified by science. The verses which contradict with must be interpreted. In fact, they applied the substantive laws even to the problem of the Dooms day. They said the soul is material and have material characteristics. Prophethood is a certain social intelligence who built its rulings based on the right

⁶⁹ Surah Luqmân: 10.

⁷⁰ *Al-Durûs al-Dîniyyah*, p. 61-64, cited from *al-Tafsîr al-Ilmiy fi al-Mizân*, p. 231.

خَلَقَ السَّمَوَاتِ بِغَيْرِ عَمَدٍ تَرَوْنَهَا

ideas. In addition, they also mentioned that it is impossible to rely on history as a history of chaos. Al-Qur'an in it is not allowed to interpret it based on the rational method (which is never used by old mufassir) that has been disallowed by science (science annulled the rational method). The Qur'an should be interpreted only by science alone."⁷¹

He said: The statement that what is presented by mufassir salaf (that it is just not the interpretation but the application) shall also apply their pattern in interpreting verse. "Nevertheless, al-Allamah still utilized the results of empirical sciences in interpreting some verses of Al-Qur'an, such as surah al-Anbiyâ': 30.⁷² He said: The meaning is that water has a total effect of the existence of life ... It is apparent connection with the water of life through modern scientific studies."⁷³ Regarding Surah al-Dzâriyyat: 47,⁷⁴ he said that the word "*musi'un*" in that verse meant "the creation of sky as extension which tend to be said by theoretical studies now."⁷⁵ In the following studies will be clearly visible position of al-Allamah against scientific interpretations, which vary by type. He is a supporter this commentary with some notes.

- e. al-Shaykh Nasir Makarim al-Syayrâziy, author of tafsîr "*al-Amtsal*". He is one of the moderate groups in addressing the scientific interpretation.⁷⁶ When discussing the problem of scientific interpretation, he says: It is noteworthy that science has entered this field (tafsîr). Al-Quran is interpreted by science. We affirm that what is meant by science is a science fact, not an arbitrary hypothesis in line with the changing times. It is impossible to applied Qur'an which

⁷¹ al-Thabâthabâ'iy, *Al-Mîzân*, vol. I, p. 807

⁷² Surah al-Anbiyâ': 30;

⁷³ al-Thabâthabâ'iy, *Al-Mîzân*, vol. XIV, p. 279

⁷⁴ Surah al-Dzâriyyat: 47.

⁷⁵ al-Thabâthabâ'iy, *Al-Mîzân* vol. XVIII, p. 382.

⁷⁶ *Tafsîr Namunah*, vol. I, p. 131, vol. XI, p. 410, vol. XII, p. 275, vol. XV, p. 548.

وَجَعَلْنَا مِنَ الْمَاءِ كُلَّ شَيْءٍ حَيٍّ ...

... وَالسَّمَاءَ بَنَيْنَاهَا بِأَيْدِي وَإِنَّا لَمُوسِعُونَ

definitely against the hypotheses that fickle. The plants found in the XVII century AD, and movement of the earth around him was a scientific fact, not a hypothesis that could change."

- f. al-Shaykh Ma'rifat. He told that the Shari'a is not the natural sciences, and Al-Qur'an is not a book of science. Scientific signals, in addition to the basic problems (wisdom, guidance, education, counseling, etc.) are described globally can be captured by those who master the science. Qur'an does not explain these issues. The Qur'an only shows the greatness of God's infinite knowledge.⁷⁷ He believes that science must be the imperative to understand Al-Qur'an. Capture the signals contained in Al-Qur'an is not possible without utilizing the results of science.⁷⁸
- g. al-Shaykh al-Sabhâniy. He is moderate leaders in responding to problems of scientific interpretation. He offended many scientific issues such as general gravitation, the earth was round and motion, the motion of heavenly bodies, and about plant in his book "*Burhan Risalat.*" All he doing is to affirm miracles of the Qur'an.⁷⁹ Although he refused to apply the science in the Qur'an, but he stressed the necessity utilize scientific findings in interpreting Al-Qur'an. (Thus, he clearly agreed to utilize science to understand Al-Qur'an).

D. Arguments on Scholar Opinions about Scientific Interpretation

There are different opinions and different perspectives on a variety of scientific interpretation. Among them are some who accept it unanimously and some who absolutely refused. There are groups that distinguish between the types of interpretation. We have already alluded to some of their arguments. Now writer will explain it in detail.

1. Arguments supporting scientific interpretation.

⁷⁷ al-Syaikh Ma'rifat, *Al-Tamhîd* vol. IV. p. 31.

⁷⁸ *Ibid*, vol. VI, p. 31

⁷⁹ al-Syaikh al-Sabhâniy, *Burhân Risâlât*, (Maktabah al-Shadr, Teheran 1398 H).p. 253-283

- a. The use of science in interpreting Al-Qur'an would create an understanding of the verses for the better, and can explain scientific signals. When the Qur'an speaks about things that are positive and the negative of liquor in surah al-Baqarah: 219,⁸⁰ modern medical findings explain the meaning of that verse and intent of liquor from positive and negative side. Understanding of some of the verses will be a problem without looking at the science. We are in need of medical findings in the "science of genetics" for instance, to understand and interpret the verses (12-13) from the surah al-Mu'minun. Similarly, verse fifth of surah al-Hajj which to know the phases of human creation. We need the science is (in verse) as we need the science of language in understanding the words of Al-Qur'an.
- b. Commentary has a contribution in establishing the miracles of the Qur'an. While some scientific issues arise in Jaahiliyyah environment, and new proven true after many centuries later, this means that Al-Qur'an was a miracle of divinity, not human speech. The Qur'an mentions many problems that it confirms it's miracle, such as the principle of couple for existing and plants,⁸¹ gravity,⁸² motion of the sun,⁸³ drinking banned philosophy,⁸⁴ human creation phase,⁸⁵ clouds and pollination of plants,⁸⁶ etc.

⁸⁰ Surah al-Baqarah: 219;

... قُلْ فِيهِمَا إِثْمٌ كَبِيرٌ وَمَنْفَعٌ لِلنَّاسِ وَإِثْمُهُمَا أَكْبَرُ مِنْ نَفْعِهِمَا ...

⁸¹ Surah Yâsîn: 36.

سُبْحَانَ الَّذِي خَلَقَ الْأَزْوَاجَ كُلَّهَا مِمَّا تُنْبِتُ الْأَرْضُ وَمِنْ أَنْفُسِهِمْ وَمِمَّا لَا يَعْلَمُونَ

⁸² Surah al-Ra'd: 2;

... وَهُوَ الَّذِي مَدَّ الْأَرْضَ وَجَعَلَ فِيهَا رَوَاسِيَ وَأَنْهَارًا ...

and surah Luqmân: 10;

وَأَلْقَى فِي الْأَرْضِ رَوَاسِيَ أَنْ تَمِيدَ بِكُمْ وَبَثَّ فِيهَا مِنْ كُلِّ دَابَّةٍ

⁸³ Surah Yâsîn: 38;

وَالشَّمْسُ تَجْرِي لِمُسْتَقَرٍّ لَهَا ...

⁸⁴ Surah al-Baqarah: 219;

... قُلْ فِيهِمَا إِثْمٌ كَبِيرٌ وَمَنْفَعٌ لِلنَّاسِ وَإِثْمُهُمَا أَكْبَرُ مِنْ نَفْعِهِمَا ...

⁸⁵ Surah al-Hajj: 5;

- c. Scientific exegesis could encourage non-Muslims learn Al-Qur'an, particularly among youth. That's because scientific findings affirm the truth of the signals mentioned in Al-Qur'an. This is recognized by some scholars that are neutral in the West. A scientist "Maurice Bucaille" in his book recognizes the truth and miracles of Al-Qur'an, the Torah and the Gospel and deviations from the various problems of science.
- d. Given errors in the older traditional rational method (Method Aristotle) thanks to the progress of philosophy and empirical sciences in the West, and not rely on narrations possibility of an interpretation because the narrations were mingled with Israiliyyat, and the existence of fraud and the number of the liar sources, then the only possible is scientific interpretation. That means to interpret Al-Qur'an in the perspective of theories and scientific experiences.⁸⁷
- e. Some Egyptian writers say: miracles of the Qur'an for the Arab nation at that time miracles literature through the words and sentences of other beautiful and used at the time. The Qur'an challenged them to bring just one verse. Along with the passage of time during the 14th century, no one who can bring a letter like Al-Qur'an. For the group of other nations such as the type of miracles is not right for them, because they do not understand it. Therefore Al-Qur'an should be interpreted scientifically, because the scientific miracle cause of non-Muslims may receive and interested in Islam.⁸⁸

يَأَيُّهَا النَّاسُ إِن كُنْتُمْ فِي رَيْبٍ مِّنَ الْبَعْثِ فَإِنَّا خَلَقْنَاكُمْ مِّن ثُرَابٍ ثُمَّ مِّن نُّطْفَةٍ ثُمَّ مِّن عَلَقَةٍ ثُمَّ
 مِّن مَّضْغَةٍ مُّخَلَّقَةٍ وَغَيْرِ مُخَلَّقَةٍ لِّنُبَيِّنَ لَكُمْ وَنُقِرُّ فِي الْأَرْحَامِ مَا نَشَاءُ إِلَىٰ آجَلٍ مُّسَمًّى ثُمَّ
 نُخْرِجُكُمْ طِفْلًا ثُمَّ لِتَبْلُغُوا أَشُدَّكُمْ

and Surah al-Mu'minûn: 12-13;

وَلَقَدْ خَلَقْنَا الْإِنسَانَ مِن سُلَالَةٍ مِّن طِينٍ ، ثُمَّ جَعَلْنَاهُ نُطْفَةً فِي قَرَارٍ مَّكِينٍ .

⁸⁶ Surah al-Hijr: 22;

وَأَرْسَلْنَا الرِّيحَ لَوَّاحٍ فَأَنْزَلْنَا مِنَ السَّمَاءِ مَاءً فَأَسْقَيْنُكُمُوهُ وَمَا أَنْتُمْ لَهُ بِخَزَنِينَ

⁸⁷ Al-Thabâthaba'iy, "ay al-Tafsîr al-Ilmiy, vol. I, p. 7

⁸⁸ Abdurrazzaq Nawfal, *Al-Qur'ân wa al-Ilm al-Hadîts*, (Dar al-Kitâb al-Arabiyy, 1972 M),

- f. Some scholars claim that all science is contained in Al-Qur'an. Based on al-Nahl: 89,⁸⁹ they assert the existence of such sciences as medicine, architecture, astronomy and others in Al-Qur'an.

2. The Contra Argument

Those who said that scientific interpretation is not a necessity and not useful to rely on the following arguments:

- a. al-Qur'an not sent down to explain the problems of science, but specifically to the legal and religious issues. The verses on this subject is very clear. For example: surah al-Nahl: 89,⁹⁰ surah al-An'âm: 38.⁹¹ The meaning of these verses is matters of worship, and is understanding of the Scripture in the second paragraph is *Lauh Mahfudz*.
- b. The existence of all the science in the Qur'an is an important issue. Supposedly if so, *shahâbah* and *tabi'in* certainly offend them. Therefore they do not claim so, clearly above the mistaken claim.
- c. Among the most important arguments refute the scientific interpretation is that empirical science is uncertain, and theories are not fixed. It is not correct to interpret Al-Qur'an with these sciences, because science is constantly changing. This caused the emergence of human doubts against Al-Qur'an. As part mufassir applying the Qur'an to "nine star" in ancient astronomy of Ptolemy, and it turns out after some time is wrong, then some people think that Al-Qur'an against the theories of modern astronomy (Copernicus). This kind of thing is what happened in the West during the Renaissance when there was feud between natural science graduates with the pastor in

⁸⁹ Surah al-Nahl: 89;

⁹⁰ *Ibid*.

⁹¹ Surah al-An'âm: 38;

... وَنَزَّلْنَا عَلَيْكَ الْكِتَابَ تَبْيِينًا لِكُلِّ شَيْءٍ ...

... مَا فَرَّطْنَا فِي الْكِتَابِ مِنْ شَيْءٍ ...

trouble with the contradiction between science and religion. This raises the flow of atheism. Experiences like this should not be repeated, because it would cause the same consequences.⁹²

- d. Scientific Interpretation of many leads only rational interpretation that is prohibited under a lot of history.
- e. This type of interpretation will bring up the trend of materialism, because the number of people who deviate, using this interpretation, trying to propagate deviant ideas, and attract some young people who are still naive to the atheist. Thus, the scientific interpretation of the stairs to the unfaithfulness.
- f. Among the commentary generated by this is the wrong interpretation. Because, those who use this commentary is necessary to surpass those words and interpret the verses in accordance with the opinions and theories so they can link the opinions and theories with Al-Qur'an.
- g. There are no special rules for the scientific interpretation of this commentary is a problem because the flavor. This means that each person can interpret Al-Qur'an according to own taste.
- h. Using this scientific interpretation and enumerates the various problems of science through this commentary led to the original purpose of Al-Qur'an to be lost, that is the purpose to purify and to give guidance, as happened in the interpretation of "al-Thanthawi". In other words, the scientific interpretation caused mistaken emergence of al-Quran and its functions. Al-Qur'an descended presumed to explain the problems of science.⁹³
- i. al-Quran is a guide, the light and explanations. Using scientific interpretation means using something else to understand Al-Qur'an. Something else has become controversial.
- j. Scholarly exegesis can cause the original meanings of the Qur'an been lost and the facts turned into a metaphorical (Tafseer al-Qur'an meant

⁹² See, al-Dzahabiy, *al-Tafsîr wa al-Mufasssîrûn*, juz II, p. 691-692.

⁹³ *Fi Dhillâl al-Qur'ân*, juz I, p. 261-263.

to be not based on Arabic). Thus, this interpretation can not be true. Dr. al-Dzahabiy in this case says: "Scientific Interpretation of the irrational aspects of language, because his words will change over time, and will bring up the meanings of language, technical and new shari'a which does not exist in early Islam. Would make sense if we widen the understanding on the words of Al-Qur'an and make the words refer to a nautical meanings raised by the new term? Does it make sense if the purpose of God with the words of Al-Qur'an that is new meanings emerged after many centuries after the decline of Al-Qur'an. This sort of thing makes sense only to people who fool themselves and deny their minds."⁹⁴

- k. Belief can lead to deny the scientific interpretation of rhetoric (Balaghah) al-Quran. Because, Balaghah means suitability of speech with the demands of the situation. If we held a scientific interpretation, this means God's speech directs to the public with a speech they do not understand, and with a speech whose meaning they did not know. God said do not pay attention to the condition and level of thinking opponent. So then, it denied this rhetoric of Al-Qur'an.⁹⁵
- l. There are many ways to assert miracle of al-Qur'an. Our attention must be diverted from this method, besides as many negative impact.⁹⁶
- m. Interpretation of scientific miracles in conflict with the Qur'an and contrary to the position of Al-Qur'an as a challenge for the Arabs. Opponents said of al-Qur'an is the Arab nation. Most of them are people who *ummi* (illiterate) at the time. If we believe that the Qur'an explains the issues and scientific findings of high level, of course this means that the opponents said that at a time when the Qur'an was

⁹⁴ See, al-Dzahabiy, *Al-Tafsîr wa al-Mufasssirûn*, juz II, p. 491-492.

⁹⁵ *Ibid*, p. 491-492.

⁹⁶ *Ibid*, p. 491-492.

reduced to no attention to these problems because they do not know. This means that contrary to the challenge, because if they know they will certainly bring something similar to Al-Qur'an. Those who hold this opinion to emphasize the miracles of the Qur'an, but they were not aware that their work will lead to the position of Al-Qur'an as a challenge just to disappear.

From the information above, it is clear that all the arguments in the dispute the interpretation of scientific results in two problems. *First*, the rejection of certain types of scientific interpretation, such as bringing forth the science and applying it against Al-Qur'an. *Second*, misuse by some people in using this method, namely in order to propagate their own ideas and interpretations fall into *ra'y* which was banned in a lot of history. This issue can occur on all methods of interpretation, not only scientific interpretations.

3. The arguments that supported with the following requirements:

Most mufassir of Sunnis and Shi'ites to look "more details" about the existence of scientific interpretation, because interpretation is varied; there is right and acceptable, there is an incorrect and unacceptable. We will classify these opinions as follows:

- a. Distinction between imposing theories on Al-Qur'an with the utilization of science in understanding the Qur'an.

Sayyid Quthub (1906 - 1966) mentions this opinion. He said: "The demands and scientific problems are not absolute. He could always change. Therefore, it can not be attributed to the facts of the Qur'an which is absolute. But the theories and scientific facts can be exploited to understand the arguments of al-Qur'an."⁹⁷

- b. Commentary distinction between excessive and too rigid:

Al-Ustadz Rafi'iy scientific interpretation divides into three: the use of science to understand Al-Qur'an, charged the scientific theories of Al-Qur'an and bringing forth science from the Qur'an. Then he

⁹⁷ *Fi Dhillâl al-Qur'ân*, Sayyid Quthb, juz I, (Dâr Ihyâ' al-Turâts al-Arabiyy, Beirut), p. 260.

mentions another division, namely the interpretation that is too hard (rejected) and the interpretation moderate.⁹⁸

E. Classification of Scientific Interpretation

Scientific exegesis is divided into several forms. One of them was considered as *ra'y* interpretation, and some included as an acceptable interpretation. Therefore, this relates to the interpretation of scientific scholars are divided by type of interpretation. The first one is considered as a wrong interpretation. Others, however, accepted and regarded as one way to emphasize the miracles of the Qur'an. We will describe here a sub-sub sections in more detail.

1. Bringing forth all the science of al-Qur'an

Some ancient scholars who hold this opinion (such as Ibn Abu al-Fadl al-Mursiy, al-Ghazali and others) tried bringing forth all the sciences of the Qur'an because they believe that all the science in it. They cite verses that textually in line with scientific laws, and they provide interpretations of the verses that are inconsistent with those laws. Therefore they are bringing forth the architecture, arithmetic, medicine, astronomy, algebra and interviews ... from Al-Qur'an. For example they say that the verse: “*wa idzâ maridltu fahuwa yasyfîni*”⁹⁹ refers to medical science.¹⁰⁰ Letters that separated (in the beginning of the letter) in the Qur'an can be utilized to generate algebra.¹⁰¹ They predict¹⁰² an imminent earthquake in the year 702 H on the verse: “*idzâ zulzilat al-ardlu zilzâlaha*”. Clearly, this type of interpretation will lead to a false interpretation. Because it is necessary

⁹⁸ Tafsir Ilmiy Qur'ân, juz I, p. 145-146.

⁹⁹ Surah al-Syu'arâ': 80;

وَإِذَا مَرَضْتُ فَبُهِتَ يَشْفِينِ

¹⁰⁰ Abu Hamid, *Jawâhir al-Qur'ân*, p. 27. Pasal V (Beirut, al-Markaz al-Alamiy likitab)

¹⁰¹ al-Dzahabiy, *al-Tafsîr wa al-Mufasssîrîn*, juz II, p. 481

¹⁰² *Al-Burhân fî Ul al-Qur'ân*, juz II, p. 181-182 (Dâr al-Ma'ârif, Beirut).

far deviated from Al-Qur'an and its language meanings. For this reason, many scholars who reject the scientific commentators regard it as one form of metaphors and interpretations that are not true. We have discussed this argument above. We say: Opinions on the loss of the right building, and the truth with those who refuse.

2. Applying scientific theories on Al-Qur'an.

This type of commentary found in bloom the last century. Its adherents are trying to apply the verses to their opinions on some legal and scientific theories which for them is acceptable. They give interpretations of the verses are different. When interpreting the verse "*huwa al-ladzi khalaqakum min nafsin wahidatin minha wa ja'ala zawjaha*", that is the nafs is the protons and electrons, so the notion that paragraph is that all things in nature and life were created from the negative and positive particles. This commentary does not pay attention even to the technical meaning of the word language and nafs. Kind of like this interpretation are found in Egypt and Iran, and encourages scholars Part of the negative view of scientific interpretation.

3. Harnessing science to understand and explain the al-Quran

In carrying out this method of interpretation must be considered the guidelines and conditions to be fulfilled by mufassir, because when he did he took advantage of the interpretation of the exact sciences (which is supported by *naqli* method) and the symptoms of al-Qur'an (in accordance with the meaning of language) that is consistent with science, namely finding a new sense of unknowns of a paragraph and put them under human consciousness. This mode is the best method, even only appropriate in a scientific interpretation. We will describe in more detail about what signs to be aware of this commentary. Here we will only emphasize the importance of distancing themselves from the kinds of interpretations ra'y. Science data as possible should be linked to al-Qur'an

because the empirical sciences are certainly not objective, because it is produced through the reasoning that is not perfect.

F. Requirements of Scientific Interpretation

There are two types of signs in the scientific interpretation. General guidelines that must be met in all types of interpretation methods, and specific guidelines that must be met in certain types of methods.

1. General Conditions relating to methods of scientific Commentary:

- a. Mufassir must master a science. Among the knowledge of the Arabic language, know the issues related to the decrease in the verse, knowing the history of the Prophet, early Muslim history associated with the verse, knowing the sciences of the Qur'an as nasikh-mansukh, knowing the traditions and usul fiqh, know the opinions of philosophical, scientific, social and ethical, avoid the temptation to follow blindly towards the mufassir, considering the existing opinion, away from the application and the burden of opinion against Al-Qur'an, and learned interpretations.
- b. Attention to interpretations that could be accepted, such as following the correct method of interpreting, its interpretation does not conflict with the Sunnah is for sure, stand off is not affected by the ideas, its interpretation does not conflict with other verses and rational assessment of the obvious, and also exploit the right resources in the commentary.
- c. Ra'y away from the commentary and other mufassir follow blindly, by considering the rational reasons and *naqliyah* in the commentary.

2. Special Conditions related to the methods of scientific Commentary:

- a. Scientific Interpretation through empirical sciences:
Has described what is meant by the certainty of empirical sciences.
We add the following:
 - 1) Al-Qur'an can be interpreted on the basis of empirical sciences if this science is uncertain and unconvincing.

- 2) Al-Qur'an can be interpreted through scientific theory accepted by scholars. However, to do with Al-Qur'an can not be attributed with certainty.
 - 3) if the theory is not acceptable till and not scholars, so that theory may not be associated with al-Qur'an, both real and possible. Because these theories can be changed. Perhaps most of the objections raised by the counter after moving the source of this problem.
- b. The meaning is necessary to be clear verses related to scientific problems, not to create a burden of meaning assumption. In other words, we must avoid explanations that can not be justified and violates the interpretation is necessary.
 - c. Utilizing the correct method of interpreting. That is, using science to understand and explain Al-Qur'an, such as bringing forth science from the Qur'an and forcing the theories of Al-Qur'an.