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The Qur'anic Logic in al-Ghazali's Book al-Qistās al-Mustaqīm

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Abstract

: Throughout the history of Islam, the notion of logic has been controversial. Not only have many muslims prohibited the use of logic, but also the term mantiq, or the Arab-Islamic translation of 'logic', is often underestimated as a mere copy of the Greek logic. This article wants to examine the conception of Qur'anic logic according to al-Ghazali's book al-Qistās al-Mustagīm. This investigation is imperative especially because we need to establish a clearer conception of logic in Islamic knowledge, in order to help us better understand the link between philosophy and Islam, as well as the rationality of the Qur'an. The main question of this paper is the following: "How is the form of logic that is used by the Qur'an in its argumentation, as explained in al-Ghazali's book al-Qistās al-Mustagīm?". This paper finds out that the Qur'an has its own principles of reasoning. It is not only the source of knowledge but also the parameter of human's knowledge. This parameter, which includes ta'addul (equilibrium), talazum (equivalence), and ta'anud (contradiction), should be used as the basis upon which the plausibility of human's argumentation and ways of thinking is structured. Al-Ghazali's conception of the Qur'anic logic is directed to argue against members of the Ta'limiyah school, who refused the use of logic.

Keywords : Logic, the Qur'an, al-Ghazali, al-Qisṭās al-Mustaqīm

Abstrak

: Sepanjang sejarah Islam, pengertian logika telah menjadi kontroversi. Tidak hanya banyak umat Islam yang melarang penggunaan logika, tetapi juga istilah mantiq atau terjemahan Arab-Islam dari 'logika', seringkali diremehkan sebagai tiruan logika Yunani belaka. Artikel ini

ingin mengkaji konsepsi logika al-Qur'an menurut kitab al-Ghazali al-Qisṭās al-Mustaqīm. Penyelidikan ini sangat penting terutama karena kita perlu membangun konsepsi logika yang lebih jelas dalam pengetahuan Islam, untuk membantu kita lebih memahami hubungan antara filsafat dan Islam, serta rasionalitas al-Qur'an. Pertanyaan utama dari makalah ini adalah sebagai berikut: "Bagaimana bentuk logika yang digunakan oleh al-Qur'an dalam argumentasi, seperti yang dijelaskan dalam kitab al-Ghazali al-Oistās al-Mustagīm?". Makalah ini menemukan bahwa al-Qur'an memiliki prinsip penalarannya sendiri. Bukan hanya sebagai sumber pengetahuan tetapi juga parameter pengetahuan manusia. Parameter ini, yang meliputi ta'addul (ekuilibrium), talazum (ekuivalensi), dan ta'anud (kontradiksi), harus digunakan sebagai dasar yang di atasnya masuk akal argumentasi dan cara berpikir manusia. Konsepsi al-Ghazali tentang logika al-Qur'an diarahkan untuk membantah anggota mazhab Ta'limiyah, yang menolak penggunaan logika.

Kata Kunci: Logika, al-Qur'an, al-Ghazali, al-Qistas al-Mustagim

A. Introduction

In his study on the correlation between logic and religion in Islam, Musa Akrami argued that their correlation refers to two aspects. The first is the logic of religious texts. It refers to the Qur'an, the hadith, and the interpretation of both texts by Muslim scholars, which relate to basic argumentation of law in Islam: all kinds of reasoning used by the texts to approach their audiences. The second is logic as a discipline: the one that investigates the methods of reasoning used in various schools of Islamic theology (since Asya'riyah, Mu'tazila, and to Shia), Islamic philosophy (since Peripatetic to Illuminative), and across disciplines of Islamic knowledge in the medieval period of Islam, which were strongly influenced by Islamic doctrines.¹

In Islam, both as religion and as a system of thought, logic occupies a central position. As such is evidenced by the significant use of reasoning in various disciplines of Islamic knowledge, especially Islamic law, theology, and philosophy. The Qur'an, as a sacred book of laws, has shown the importance of mind and reasoning in understanding matters related to religious practices and

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¹ Musa Akrami, "From Logic in Islam to Islamic Logic," *Logica Universalis* 11 (2017): 62.

theology, particularly the existence of God, the origin of nature and human beings, and the afterlife.

Yet, despite their acceptance of reasoning, many scholars have rejected and even prohibited the use of logic, simply because it was assumed to be originated from the Greek tradition. Example of these scholars include Ibn Taymiyyah (d. 728 AH/ 1328 AD) and al-Suyuthi (d. 911 AH/ 1505 AD). If Ibn Taimiyyah was the first muslim thinker to write a book on this matter, namely Nagd al-Manţiq and Naşihat Ahl al-Imān fi al-Radd 'alā Manţiq al-Yunan, which later popularly known as al-Radd 'ala al-Mantigiyyīn, al-Suyuti was the one who rendered Taymiyyah's al-Radd alā al-Manţiqiyyīn, into a version that is more easily understood. According to Mufti Ali, even Muslim scholars such as al-Syafi'i have argued for the prohibition of interpreting Arabic texts according to the language of the Greek people as well as the Aristotle's logic, because they are from a different system of language and logic. The Qur'an is written in Arabic language and is based on Arabic reasoning, not in Greek terms.² Still according to Mufti Ali, muslim's rejection of the Greek logic dated back even earlier to the works of Ja'far al-Sadiq, who died in 148 H/764 AD.³ In general, muslim's reaction to the Greek logic is twofold: contradictive and accommodative.

Among muslim scholars who are in favor of logic (manţiq) is Abu Hamid al-Ghazali. Not only did he write a few books on Greek logic, but he had also authored a specific book in which he argued that the Qur'an had maintained the use of logic in its argumentation. Off course what he referred to here is not squarely the logic of the Greek tradition, established by Aristotle some centuries earlier. Rather, he pointed out that the Qur'an has its own logical principles, largely composed to argue against those in disbelief of its teachings.

As a holy book for which muslims seek their reference to live their lives, the Qur'an does not only encourage humans to use their mind (to think), but also provides basic foundations upon which muslim should structure their thinking, such as the Aristotle's logic which is still widely in use today. The Qur'an is not a dogmatic book allergic to human's logical thinking; rather it

² Mufti Ali, "Aristotelianisme dalam Kacamata Para Tokoh Abad Tengah Penentang Logika," *Jurnal al-Qalam* 24, no. 3 (2007): 320.

³ Mufti Ali, "Metode al-Suyuthi meringkas al-Radd 'ala Manṭiqiyyin karya Ibnu Taymiya," *Jurnal al-Qalam* 22, no. 3 (2005): 396.

teaches methods of thinking that are logical and rational. This point needs to be highlighted because nowadays there have been still some muslims who discourage the use of reasoning in understanding the Qur'an: an attitude that is counterproductive to the spirit of the Qur'an. Therefore, this research is aimed at exploring the extents to which the Qur'an has established its own logical methods of reasoning, which are compatible with those of Aristotle's logic.

This paper is based on a qualitative and library research. Its main question is the following: "How is the form of logic that is used by the Qur'an in its argumentation, according to the book al-Qisṭās al-Mustaqīm?". In this regards, material objects of this research refer mainly to the Qur'an's formations of istidlal (conclusion-drawing), as mentioned by al-Ghazali in his al-Qisṭās al-Mustaqīm, while philosophy of thinking becomes its main formal objects. Data of this research are analyzed with the following methods: interpretation, heuristics, and historical continuity.

B. Conceptual Framework

The word *manţiq* in Arabic is a translation of the English word logic. While it may mean *kalam* (speech), the Arabic word *al-manţiq* is a form of *al-ism al-alat*, or a noun that is used as a tool. That word is a derivation from *nataqa* (to think), which becomes *manţiq*, or a means of thinking. In addition, the word *naṭaqa* may also mean 'to speak' (*kalama*). In the Qur'an, for example, the word *manţiq* is used to refer to a speech, and its verb *nataqa* is also used to mean the same meaning.⁴ According to Shams Inati, before the Arab had developed logic, this word was used in relation to its Greek form, which also means Logic, similar to the meaning it has acquired from the philosophy of Islam.⁵

Logic as a set of rules of thinking, etymologically, is a term that derives from the Greek words, *logike*, or *logikus*, or *logos*, which means "to speak" and "to talk". In this regards, the Arabic word *mantiq*, which is a translation of the Greek word logic, also means "to talk", aside from its meaning, "to think". Therefore, the term *al-insān hayawānun nāṭiq* is used to describe the quality of

⁴ Muhammad Nur, "Logika Yunani dalam Tradisi Pemikiran Islam," Laporan Hasil Penelitian (LP2M UIN Raden Intan Lampung, 2018), 17.

⁵ Shams Inati, "Logika," dalam *Ensiklopedi Tematis Filsafat Islam*, ed. oleh Seyyed Hussein Nasr dan Oliver Leaman (Bandung: Mizan, 2003), 1117.

human beings as "animals who are able to think and to speak". Seen from the etymological perspective, there is a strong relationship between (human's ability) "to speak" and "to think".⁶

Although al-Ghazali has written several books in the discipline of manṭiq such as Muhik al-Nażar, al-Qisṭās al-Mustaqīm, Maqāṣid al-Falāsifah, Mi'yār al-'Ilmi, and al-Mustasyfa, his thoughts on logic are still difficult to access. When writing his thesis on the Logic of Abu Hamid al-Ghazali in 2006, the author found the same facts: the study of Ghazalian logic has received less attention than other topics in Islamic thoughts do. At the same time, logic as a discipline is itself a deserted field. New publication in this field is mostly a mere rewriting of the old works. Perhaps, the lack of publication in Ghazalian logic is due to the lack of interest in studying logic among Muslim scholars.

Up to the modern era, some books have been written to study logic. Yet, most of these books, as I have said earlier, are a mere repetition of what had been discussed by previous muslim scholars. This includes *al-Manṭiq* by Muhammad Nur al-Ibrahimy, which was published by Pesantren Petuk in Kediri. The book, which studied about logic and was written in Arabic, is read in many pesantren (Islamic boarding schools) in Indonesia, especially in East Java.

It is Shams Inati's work on *Logic* that can be regarded as an important contribution to the study of logic in today's Islam. Appearing in Nasr and Leaman's *Thematic Encyclopedia of Islamic Philosophy*, her writing discusses some fundamental themes in logic. Yet, her work does not talk about the theme I am about to explore in this article. In 2003, Umar M. Noor, an alumnae of UIN Syarif Hidayatullah Jakarta who is currently pursuing his study in Damascus Syria, published his article in 2003, entitled *Menimbang Manṭiq: antara al-Ghazali dan Ibnu Taymiyah* (Reconsidering Manṭiq: between al-Ghazali and Ibn Taymiyah). In his article, he compared between al-Ghazali's and Ibn Taymiyah's thoughts on logic. In the same article, quoting *al-Qisṭās al-Mustaqīm* by al-Ghazali, he mentioned that according to al-Ghazali, the Qur'an has a logical structure in its reasoning. However, his study of the logic of the Quran is only briefly discussed to strengthen the argument concerning al-Ghazali's logic. Furthermore, in 2018, M. Nur wrote an article on the historical introduction of Greek philosophy (logic) into Islamic culture, in which he

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⁶ Nur, "Logika Yunani dalam Tradisi Pemikiran Islam," 60.

described its scientific construction as well as examined the distinction between the Greek logic and *manţiq*. In his article, the author also briefly discussed al-Ghazali's effort to establish the concept of Qur'anic logic in his *al-Qisṭās al-Mustaqīm*. On top of that, one of the most recent works on logic in Islam is the one that is written by Musa Akrami, *From Logic in Islam to Islamic Logic*, published in 2017. His writing tries to explore the logical structure behind the argumentations composed by the Qur'an. It also discusses various models of contradiction in the verses of the Qur'an. His writing however has not answered the question this paper aims to answer, that is, that is the forms of logic used by the Qur'an in its argumentation, as explained by al-Ghazali's *al-Qisṭās al-Mustaqīm*.

C. Discussion

1. Al-Qisṭās al-Mutaqīm: History and Substance

Although al-Ghazali is not known as a scholar of the Qur'anic exegesis, his expertise in Qur'anic sciences and exegesis should not be questioned, evidence of which can be found from his various works in Islamic sciences during different phases of his life time. Example of his work includes Ihyā' 'Ulūmuddin, al-Mustaṣfā min Ilm al-Uṣūl, al-Mankhūl min Ta'līqāt al-uṣūl, Syifa' al-Ghalīl, Qanūn al-Tawīl, Jawāhir al-Qur'an, Tahżīb al-Uṣūl, and al-Maknūn fi al-Ilm al-Uṣūl.

Al-Mankhūl min Ta'līgāt al-Uṣūl was written by al-Ghazali in his early career as a muslim scholar. While Misykāt al-Anwār, a work of an isyari interpretation (tafsir isyari) that focuses on the verse 35th of Chapter al-Nur from the Qur'an, was written towards the end of his life. This book seemed to be aimed at readers who choose to walk in the path of mysticism. His book al-Mustașfā is a book that focus on explaining verses of the Qur'an that contain teachings on ushul al-figh, or basic principles of Islamic jurisprudence). His book which talks about Qur'anic sciences (ulūm al-Qur'an) is Jawāhir al-Qur'ān. Aside from discussing the main contents of the Qur'an, this book also pointed to the significance of the Qur'an as the source of knowledge. His other book relating to Qur'anic sciences Ihyā' Ulūmuddin. Although the book largely discusses matters of Islamic

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⁷ Kurdi, "Hermeneutika al-Qur'an Abu Hamid al-Ghazali," dalam *Hermeneutika al-Qur'an dan Hadis* (Yogyakarta: Elsaq, 2010), 7.

mysticism, al-Ghazali also showed in it a detailed explanation concerning the method of interpreting the Qur'an: this can be seen especially in the section *Adab Tilāwah al-Qur'an* (the ethics of reciting the Qur'an).⁸

Al-Ghazali is known for his insatiable hunger for knowledge, evidenced by his works traversing across various fields of Islamic sciences. Among his researches is his work on the teachings of the "authoritarian teaching" (ta'lim) group, also known as the Ismaili and the Batiniyah. His expertise in logic helped him uncovered many serious inconsistencies and weaknesses in the teachings of the Ta'lim group. He concluded that although they claimed to ignore reasoning and relied upon the teachings of an Imam who is protected from error and sin (ma'sum) in terms of truth and all other matters; yet, at the practical levels they are discreetly incapable of escaping from the use of reasoning. And they are aware about it for it is impossible for them to always ask an advice to the Imam or his representative for every case they faced in daily life. In addition to that, al-Ghazali also showed the lack of depth in their teachings, as they are mere simple formulas of their thinking. When he was doing his research, he did not question the validity of their understanding about the esoteric meaning (batiny), which is the basic element of their authoritative teaching doctrine. His book al-Qisṭās al-Mustaqīm contains a long dialogue between himself and one of the Ismaili followers. This book is also a refutation towards several understandings held dear by members of the Ismaili group.

According to al-Ghazali, mind and *naql* are theoretically impossible to contradict with each other, because both of them originate from the same *nur* (light) of Allah. Rather, they will only strengthen and confirm each other.⁹

In general, Muslim scholars recognized the Qur'an as guidance for all Muslims. Yet, al-Ghazali went a step further, arguing that the holy book is an ocean of knowledge, and becomes a reference for all forms of knowledge to develop from time to time. Every Muslim scholar from all generations is bound to comprehend all sorts of knowledge contained in the Qur'an, be they relate to religious or secular sciences. Theoretically and practically, the Qur'an serves as guidance for human life. Therefore, in *al-Qisṭās al-Mustaqīm*, al-Ghazali maintained that the Qur'an also provides a set of guidance about how to think

⁸ Kurdi, 9–10.

⁹ Kurdi, 9–10.

¹⁰ Kurdi, 14-15.

in a logical way. In other words, if Muslims want to learn logic, it is enough for them to study it from the Qur'an.

Al-Qisṭās al-Mustaqīm is a book about logic and the Qur'an. The book has been translated into English under the title "The Just Balance" by DP Brewster. In its preface, Brewster wrote that Ignaz Goldziher had praised the book as the most interesting work in terms of form and substance. As previously stated, the book is a kind of "recording" of a dialogue between al-Ghazali and the Shi'a Ismaili. Yet, the book's appeal is less about the dialogue than about the ways in which al-Ghazali used his methods in order to defend his opinion. The book reveals how a Muslim theologian has employed Greek philosophical methods in order to defend his religious beliefs.

In general, al-Qistās al-Mustaqīm consists of the following topics:

- a. Introduction to scientific rules
- b. Large scale of equilibrium parameters
- c. Middle scale of equilibrium parameters
- d. Small scale of equilibrium parameters
- e. Parameters of *talazum* (Equivalence)
- f. Parameters of contradiction (Ta'anud)
- g. Truth therapy from the erudite (arif) community
- h. Salvation path from the devilish difference
- i. Description of reasoning and analogy, and their evils

2. The Logical Form of the Qur'an in al-Qisṭās al-Mustaqīm

According to al-Ghazali, in order to gain a valid knowledge one has to use some scientific parameters. These parameters are neither reasoning nor analogy because for him they are devilish parameters. The main parameter of knowledge for humans is the Qur'an. The Qur'an is not only a source of knowledge, but it is also a parameter of knowledge. Verses of the Qur'an are always addressed to their own specified audiences (*mukhatab*), each of which

¹¹ D.P Brewster, The Just Balance (Lahore: SH Muhammad Ashraf, 1978), xi.

¹² Abu Hamid al-Ghazali, *al-Qistas al-Mustaqim*, ed. oleh Victor Salahat (Beirut: Mansyurat Dar al- Masyriq, 1983), 41.

cannot be applied randomly to all groups. This can be seen in chapter al-Nahl, verse 125.

Referring to that verse, a *hikmah* approach should not be applied to those belong to the *mauizah* group, because it will only cause them some harms. For example, a baby who still eats porridge will get sick if we feed them solid food. Likewise, if we apply a debate approach (*mujadalah*) to people of the *hikmah* group, they will refuse to it, just like the refusal of adult people who are asked to get their food from breastfeeding. Still according to al-Ghazali, the use of a debate method (*al-jadal*) without following the prescription advised by the Qur'an is like giving restaurant-cooked-style food to low-class people living in countryside: they will mostly refuse to take it, because of their difference in eating habits.¹³

According to al-Qisṭās al-Mustaqīm, the best method of debate is exemplified by Prophet Ibraham, especially in his dialogue with King Nimrod. ¹⁴ In the Qur'an (al-Baqarah: 258) it is mentioned that Ibraham initially said to Nimrod that "My God is the one who gives life and causes death". Yet, Ibrahim would later recognize that such sentence was not effective to silence Nimrod, as the latter responded with the following answer, "I can give life and cause death too". In the eyes of Nimrod, killing is similar to causing death, thus making it very much close to his character, that is, like to kill people. Therefore in the following verse, Ibrahim quickly changed his argumentation by saying the following: "verily Allah (my Lord) raised the sun from the east, (if you can be like my Lord) bring the sun from the west", which immediately made Nimrod speechless. ¹⁵

It is important to note here that in that debate, Prophet Ibrahim did not ride the back of a sword to show the weakness of his opponent. What he wanted was not to kill people, but to make them alive. A virtue like this does arguable come only from a teaching that is illuminated by the lights of prophethood. This is why the Ta'limiyah group tried their best to cover their intelligence because they did not want to reveal their secrets. ¹⁶ As such has

¹³ al-Ghazali, 42.

¹⁴ al-Ghazali, 42.

¹⁵ al-Ghazali, 42.

¹⁶ al-Ghazali, 42.

become al-Ghazali's criticism to the Ta'limyah group who blindly followed their imam and ignored their reasoning.

With regards to parameters for "measuring" the knowledge, al-Ghazali mentioned in his book that he used the standard of 'the straight balance' (al-Qisṭās al-Mustaqīm), with which one can distinguish between the truth and the false, as well as follow the path that Allah has directed in the Qur'an, revealed to His prophet. The term al-Qistas al-Mustaqim itself is taken from the Qur'an, in chapter al-Isra', verse number 35, which says, "Weigh it with the straight balance".

According to al-Ghazali, the straight balance standard consists of five parameters. They are stated by Allah in His book revealed to His prophets. Whoever learns from the Messenger of Allah and follows the standard of His balance will come out as the right person (receiving *Hidayah*, or Allah's guidance), and whoever deviates from it by using measurement of reasoning and analogy, then according to al-Ghazali, will be wrong and get lost. According to him, these balances are based on the Qur'an, chapter al-Rahman: 1-9, and chapter al-Hadid: 25. Thus, they are the balance of Allah's knowledge, which is also the balance of His angels, messengers, kingdoms, and His invisible realms (*malakut*). Anyone must learn from Him because He is the first master, followed by angle Gabriel, His messengers, and then all creatures that learn from the messengers. 19

Al-Ghazali said that there are three parameters of balance of the Qur'an. They are the parameter of *ta'adul* (equilibrium), *talazum* (equivalence), and *ta'anud* (contradiction). The equilibrium parameter consists of three scales: *akbar* (great), *awsat* (middle), and *asgar* (small): thus in total there are five parameters.²⁰ These parameters are immaterial in nature. Yet, it can be used to measure material beings. For the scientific balance of the Qur'an is spiritual in nature.

¹⁷ al-Ghazali, 43.

¹⁸ al-Ghazali, 43.

¹⁹ al-Ghazali, 43.

²⁰ Ibid., 46 For technical terms contained in the book al-Qistas al-Mustaqim, the author takes the translation from the translation of the book entitled "Straight Balance: Considering the parameters of Truth," which is translated by Kamran As'at Irsyady. The translation is a part of al-Ghazali's books collection, namely *Majmua't al-Rasail* which is translated into Indonesian under the title "Samudera Pemikiran al-Gazali" published by Pustaka Sufi Yogyakarta.

The great scale, according to al-Ghazali, refers to the parameter that was used by Prophet Ibrahim to argue against King Nimrod. It is widely known that Nimrod had declared himself as the God, whereas divinity assumes a sense of omnipotence and sovereignty. Because of this, Ibrahim refused to accept Nimrod's claim, saying to him, "My God is the one who gives life and causes death" (The Qur'an, Al-Bagarah: 258). Yet, Nimrod replied to him by saying that he can give life and can cause death, simply thinking that giving life is equivalent to having sex, and causing death is to killing people. Realizing that it was difficult to make Nimrod realized his fallacy, Ibrahim changed his argument with the one that is more effective and challenging. He said, "Indeed my Lord causes the sun to rise from the east, so make it rise from the west" (the Qur'an, al-Baqarah: 258). After hearing the challenge presented by Ibrahim, Nimrod immediately fell in silence, unable to answer.²¹ For al-Ghazali, conclusion is not a must in an argument. What is more important is that there is an understanding about the consequence of our argument. This is because a legal assessment over a sifah with a darurah is also the law of mausuf. The simplification of this argument is that it is my God who raises the sun; meanwhile if the one who raises the sun is God, the consequence is that my God is God, even though the ability to raise the sun is only the nature of God. When "the raiser" is seen as an attribute of divinity, its consequence is that to acknowledge God with His divinity.²² Here it is required that the sifah must be equal to, or more general than the mausufso that its acknowledgement automatically includes the mausuf bih. This also applies in the context of figh.

All sorts of wine are intoxicating. In Islam, all that causes intoxication is forbidden (*haram*). Thus, the prohibition of all intoxicating substances will include wine because intoxication is the nature of wine: wine as the *mausuf* is inevitably included in the *sifah*. This logic, said al-Ghazali, is also applicable to all other theoretical matters.²³

The second scale of the equilibrium parameter is the middle scale (ausat). According to al-Ghazali, this scale also belongs to the prophet Ibrahim. This can be found in his speech, "I don't like things that set down" (the Qur'an, al-An'am: 76). The logical structure of this scale is the following. God is

²¹ al-Ghazali, 49.

²² al-Ghazali, 50.

²³ al-Ghazali, 52.

impossible to set down (major premise). The moon is setting down (minor premise). So the conclusion is that the moon is not God. However, the Qur'an explained it only briefly and implicitly. In this regards science cannot deny the divine character of the moon without first knowing these two premises: that the moon sets down and God does not. If both premises have been fulfilled, it becomes necessary to affirm the moon's divinity status.²⁴

In his dialogue with Ismaili followers, al-Ghazali emphasized that the balance scale is correct, and that the knowledge generated from employing this parameter is categorized as *daruriyah*, considering the fact that it came from Ibrahim.²⁵ He explained that what he said to Nimrod had become a knowledge existing in his mind; despite this knowledge is not an axiom, but one that is deduced from both major and minor premises, all of which conclude that God is not changing. This is because everything that changes is an accident (new), and setting down is a change. It is based on this thinking that Ibrahim established his parameters of knowledge about God. When someone can gain a knowledge based on major and minor premises, he definitely can use this scale.²⁶

But what is the limit of this scale? Its limit is when every two metaphors characterized one of them with a capacity that overlaps with that of the other, making them characteristically different. The limit of the great scale is that the law of the general is applicable to things that are particular and what is under its label. The limit of the middle scale is that "what is negated from a stipulation about a thing, then it is different from that thing". Example of its application is when God is negated from the character of setting-down as experienced by the moon: thus, a distinction between God and the moon. In other words, the moon is not God and vice versa, God is not a moon.²⁷

This scale is not only taught to Ibrahim but also to Prophet Muhammad so that he can follow the "path" of his ancestors. As such is evidenced by what al-Ghazali indicated in the Qur'an of chapter al-Jumu'ah, verses number 6 and 7. It says, "O you who stand on Judaism, if you claim that you are favorites of Allah to the exclusion of all other people, then express your wish for death. They will never wish for it (death) because of the sinful deeds

²⁴ al-Ghazali, 55.

²⁵ al-Ghazali, 56.

²⁶ al-Ghazali, 56.

²⁷ al-Ghazali, 56.

their hands have sent forward. There are two premises here. The first is that every lover wishes to meet with his love (major premise). The second premise is those who claim to be a favorite of Allah, but never wish a death which is the way to meet their loving God (minor premise). Thus, it can be concluded that they are not the favorite of God.²⁸

The scale of the equilibrium parameter is the small scale (asgar). This scale is observable in the Qur'an, chapter al-An'am: 91. It says, "They have not appreciated Allah with the true honor due to Him when they said: 'Allah has not revealed anything to any human being'. Say: Who had revealed the Scripture which Moses brought light and guidance for mankind". The balancing aspect of this parameter shows that the argument that denies the revelation of God's words to human beings is wrong. This conclusion is based on two premises. The first premise is that Prophet Moses is a human being (major premise). The second premise is that he has been presented with a divine scripture (minor premise). The logical consequence from these premises is that there is a few human beings who have received revelation from God. Thus the argument that there is no human being receiving revelation is simply not correct.29

To further explain this scale, the premise "Moses is a human" can be evidenced through our senses. The second premise "Moses received revelation" is provable through the confession of his followers, who are the Jews. In this regards however the Jews did not show all parts of their confession, as stated by the Qur'an in the following verse: "(some of) which you show while the major portion you hide" (The Qur'an, al-An'am: 91). According to al-Ghazali, this logic is thus more accurately referred to as the so-called mujadalah bi alahsan (the soft-approach disputation). He also explained that the main target of all these principles and premises established by the Qur'an the the people who do not doubt about them. This is because one of the characteristics of the debate is that the two premises must be accepted by the opponents of the debate, and well known to them. If one is able to shake and weaken the other's arguments, the latter must accept the truth proposing by the former.³⁰

²⁸ al-Ghazali, 56.

²⁹ al-Ghazali, 59.

³⁰ al-Ghazali, 60.

The definitive limit of this parameter is that if there are two attributes gathered in one material, one of the two attributes must become into the other. Yet it is not obligatory for the two attributes to become one material: the diffusion of the two material is conditional, some time they merge into one material, another time they are not.³¹

Thus, what can be concluded from Ghazali's explanation is that the great scale is referred to a scale that may contain a lot of things, while the small scale is the opposite of the great scale, and the middle scale is the one that contains things in between the two.³² The first scale is obviously the vastest one, from which we can draw a knowledge about acceptance of the general and the particular, as well as rejection of the general and the particular. This parameter is able to balance four kinds of knowledge. The second parameter scale only considers negation (general and specific), and the third parameter can only be used to consider the particular (both affirmative and negative), and the partial. According to al-Ghazali, the misuse of scales and balance is what has happened to the Ta'limiyah sect.³³

The second parameter is the *talazum* parameter (equivalence). This parameter departs from several verses in the Qur'an. They are al-Anbiyā: 22, which means, "Had there been in them (the heaven and the earth) other God (besides Allah), then surely both would have gone to ruin"; al-Isra: 42, which means, "Say, had there been other Gods besides Him, in that case, would have certainly sought out a way to the Lord Mighty throne"; and al-Anbiyā: 99, which means, "Had these (false deities) been gods, they would not have come to it (hell)".

In its application, this scale can be explained as follows. If there are two Gods in the universe, the universe will surely perish. This statement is used as the major premise. The fact shows that the universe does not perish. This second statement is called as the minor premise. The logical consequence of this thinking is that having a God other than Allah is self-denied. This is the explanation of the first verse above. With regards to the second verse, its explanation is as follows. If there are other gods besides the God who owns the Throne, they will fight over the throne (this is the major premise). In fact, those

³¹ al-Ghazali, 61.

³² al-Ghazali, 61.

³³ al-Ghazali, 61.

considered as gods are not fighting with each other (this is the minor premise). Therefore, the logical consequence is that gods other than the Owner of the Throne are denied.³⁴

The definitive limitation of this parameter is that a thing that is attached to another thing will continue to follow it in all circumstances. Thus, to deny the existence of a *lāzim* (an attachment) implies that there is a *malzūm* (the attached), and conversely, the presence of a malzum implies that there is a lāzim. Yet, a denial of a lāzim by a malzūm has no implication, even according to al-Ghazali, as such is referred to as the scales of Devil, and is the one that is employed by the Ta'limiyah sect in measuring knowledge. 35 In this regards there is an interesting example conveyed by al-Ghazali on issue about figh (Islamic jurisprudence). Validity of a prayer ritual requires its practitioner to be clean (with an ablution ritual). If the prayer is valid, then the person who performed the prayer must have performed the ablution. However, if the person is later discovered to be not clean (loss of *lāzim*), then the prayer becomes invalid (loss of malzūm). Likewise, if the prayer is valid (malzūm), the performer must have been purified. Yet, if the person is purified, the prayer is not automatically valid. This is because the prayer can be nullified for other reasons. Thus, the presence of lāzim does not necessarily indicate the presence of malzūm.36 The model of reasoning above in the Greek logic usually called modes Ponen and mode tolen which is part of the hypothetical syllogism.

In addition to the two parameters above (ta'adul and talazum), al-Ghazali declared the third parameter, the ta'anud (contradiction) parameter. This parameter is based on Saba': 24, which means, "Say (Muhammad), who provides you sustenance from the heaven and the earth? Say, 'Allah', indeed we (- the believers) are on the right guidance, nonetheless, you (the disbelievers) are engrossed in evident error".

In the above verse, Allah does not use "we and you" as an equivalent and skeptical way, but implicitly refers to a premise that "we are not in evident error". If the reasoning is written in more detail, the verse would read the following: "Verily, Allah provides sustenance to you from the heaven and the earth. He gives sustenance from the sky by sending down water (rain) and

³⁴ al-Ghazali, 62.

³⁵ al-Ghazali, 63.

³⁶ al-Ghazali, 64.

sustaining sustenance from the earth by growing plants, you are engrossed in evident error by denying this".³⁷

In logical science, what is mentioned by the above verse is considered following the logical line of disjunctive syllogism. The statement saying "we and you are either in evident guidance or misguidance" is a premise. It is then known from the second premise that "we are in the right guidance". Thus, the conclusion that can be drawn from these premises is that you are (the disbelievers) the only ones who are misguided.

Similar to the other parameters, the disjunctive syllogism also has a limitation, which is the following. When a thing is limited by two premises, an affirmation to one of these premises bears a consequence that negates the other; yet when one of them is neglected, the other will stay intact, under the condition that its classification remains limited and specific.³⁸

With regards to the naming of the parameters, al-Ghazali explained his arguments. The first parameter is called "equilibrium" because it contains two similar premises that look like a twin balancing disk. The second parameter is called "equivalence" because one of the premises contains two correlative parts, one of which attached (*lāzim*) to the other (*malzūm*). The third parameter is called "contradiction" largely referring to the limitation of negation and affirmation, both of which are contradictory to each other. That is, the presence of each of the two assumes the deletion of the other. Conversely, the absence of each of them invites the existence of the other.³⁹

According to Al-Ghazali, he was the one who first coined these terms based on his "invention". Still, he invented these parameters deductively from the Qur'an. ⁴⁰ These parameters are not material. Rather, they are immaterial parameters with similarities of characters that can be adjusted on the basis of the emerging conclusion from the premise dualism. To draw a conclusion, a character in one premise must be related to that of the other; otherwise there will be no conclusion. ⁴¹ Each of established premises must relate to each other in order to generate conclusions. If not, a conclusion will be impossible to be

³⁷ al-Ghazali, 65.

³⁸ al-Ghazali, 66.

³⁹ al-Ghazali, 67.

⁴⁰ al-Ghazali, 67.

⁴¹ al-Ghazali, 69.

drawn. For example, all humans die (first premise), then all animals need food (second premise). Even though the two premises have a material truth, the merging of the two premises does not produce a conclusion, because they are not connected.

Other than these three parameters, al-Ghazali also introduced another parameter which he called as the "Devilish Parameter". It is the one that is employed by Satan to mislead people. The parameter is created by Satan to deceive human reasoning as if it were a correct balance of thinking. There are ten enclaves for Satan to deceive human's thinking, and all of them are described in detail in the book of *Muhik al-Naẓar* and *Mi'yar al-Ilm*.

Al-Ghazali took an example from al-Hajj: 52, which presents the story of Prophet Ibrahim when Satan tried to disturb his mind. The verse reads as follows. "And we have sent no Messenger, nor the prophet, but when he longed (to attain what he sought), Satan (interfered and) put hindrances in the way of what he sought after. But Allah removes (the hindrances) that are placed by Satan, then Allah firmly establishes His Messages". This event began when the Prophet Ibrahim hastily concluded that the sun that was rising in front of his eye was the God. He said, "Ok, this is my Lord, this is greater". Based on the sun's greater size, Satan attempted to trick Abraham, using the logic that God was the greatest if compared with the stars. His expression about the God is a major premise based on a consensus that God is greatest. While his expression about the sun being bigger than a star is a minor premise acquired through empirical perception. Based on these premises, he concluded that the sun is God. This is an example of the conclusion and parameter attributed by Satan to the small equilibrium scale, that is, because the greater is an attribute that is found both in God and the sun, it is further obscured that one of the two is characterized by the other, whereas this conclusion is in contradiction to the small equilibrium parameter.42

According to al-Ghazali, the definitive limitation of this devilish parameter is the discovery of two things for one thing, not the discovery of one thing for two things, because if the two things are found in one thing then one of them is characterized by the other.⁴³ For him, the flaw of this parameter mostly comes from a mistake it its construction, where the relation between the

⁴² al-Ghazali, 73.

⁴³ al-Ghazali, 73.

two disk scales and their stem is not a straight balance. But sometimes it may also come from the disk itself, that is, from the raw materials the disk was made.⁴⁴ The devilish parameter is also called devilish because for this reason.

Al-Ghazali also stated that Allah has made iron and $m\bar{\imath}z\bar{a}n$ (scales) as a counterpart to the Bible, therefore, people would understand that all creatures could not uphold straightness and justice except with this instrument. The book is for the layman, the $m\bar{\imath}z\bar{a}n$ (parameter) is for the elite, and the iron which preserves a tremendous power is reserved for people who seek for ambiguous things from the Bible in order to sacrifice slander and judgment, even though only Allah knows the interpretation.⁴⁵

According to al-Ghazali, people who have *mīzān* will be able to recognize all levels of measurement. Likewise, those who have the straight balance, they will be granted a pearl of wisdom from which an endless amount of goodness is born. Al-Ghazali maintained that if the Qur'an does not contain these parameters, it is not valid to be called as 'the light', because the light will not only illuminate itself but also others.⁴⁶

D. Conclusion

Although logic or mantiq, historically originated from the Greece, and al-Ghazali had studied this science from it, the Qur'an has developed its own conception of logical principles. These principles are called parameters. The main parameter of knowledge for humans is the Qur'an. Thus, the Qur'an is not only the source of human knowledge, but it is also the parameter of human knowledge. There are three parameters of the Qur'an, parameter of ta'adul (equilibrium), the parameter talazum (equivalence), and the parameter of ta'anud (contradiction). The equilibrium parameter is further divided into three scales, namely Akbar (great), Awsat (middle), and Asgar (small). So, in total there are five parameters. These parameters are the logical principles that Allah has taught directly to His Messengers, who would later pass this knowledge to his followers, the humans. In order to achieve salvation in life, humans should apply these parameters, instead of blindly following an Imam who is

⁴⁴ al-Ghazali, 90.

⁴⁵ al-Ghazali, 127.

⁴⁶ al-Ghazali, 91.

considered *Ma'ṣum*, as this this al-Ghazali's main criticism to the Ta'limiyah sect in the book of *al-Qiṣṭās al-Mustaqīm*. It is based on its function as the parameter of human's knowledge that the Qur'an deserves to be called the light and even the source of light. []

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