DETERMINATION OF SCIENCE TRACES IN THE BOOK OF TAFSIR AN-NUR BY TENGKU MUHAMMAD HASBI ASH-SHIDIQY

PENELITIAN TERHADAP TAFSIR SAINS DALAM TAFSIR AN-NUR KARYA TENGKU MUHAMMAD ASH-SHIDIQY

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Abstract
Not many reports have been performed on the Holy Qur’an, regarding the traces of scientific interpretation in modern translations in Indonesia. Based on the few conducted analyses, an ilmi (science) pattern was not considered, with the riwayah methods mostly used in obtaining interpretation from classical data. Therefore, this study aims to determine TM's new interpretation of an-Nur. Hasbi al-Shiddieqy, regarding the dimension of science. This qualitative study used the closeness of text analysis, with data obtained through a related literature review. It also aims to determine the ilmi patterns contained in the an-Nur exegesis work by TM. Hasbi al-Shiddieqy. The results showed that several scientific interpretations were observed, although they were not massively placed.

Keywords
Hasbi Ash-Shidiqy; Tafsir Ilmi; Tafsir an-Nur

Abstrak
1.0 Introduction

_Tafsir_, according to mufasir (exegeter), originates from _Fassara_– _yuﬁsiru_– _tafsira_ which indicates explanation and illumination/disclosure _al-idoh wa tabyin_ (Haryono 2021). The meaning of _Tafsir_ said by Ibn Manzur in his book _Lisān al-‘Arab_ is _al-bayān_, namely information. It comes from the word _fasru_, which means to reveal something that is closed or obscure, so the interpretation means to reveal the meaning of a difficult _lapaz_ (word) (Manzur 2010). Imam Suyuti said in _al-Itqān fī ‘Ulūmul Qurān_ if _tafsir_ mean _al-Bayān wa al-Kasyfu_ (explanation and disclosure) (As-Suyuthi, 1974). Interpretation also originates from _Fassara_, indicating the translation or revelation of _kalām_ or _lapaz_ (Asyur 2006). According to Husein ad-Zahabi, “_tafsir_” originated from “_fasara_”, which represented the information, explanation, and details used to interpret several texts (Azzahabi 2009). In a simpler context, tafsir is used to determine and explain the hidden interpretation of the Qur’an (As-Shimaini 2001). Furthermore, the ‘_Ilmi_ (science) of _al-Tafsir_ is a discourse analysis method used to explain and elaborate the interpretations of the Qur’an content (Zarirruddin & Nordin 2015). Based on Jaffer (Jaffer 2006), _tafsir_ technically emphasizes the comprehensive understanding and knowledge of the Holy Qur’an, as well as an elucidation of its profound interpretation, rule extraction, wisdom, and maxims. This showed that the material and formal objects of interpretation were the Qur’an and the interpretative problems encountered when translating God’s words, respectively (Zulaiha 2017).

1.1 Tengku Muhammad Hasbi Ash-Shididqy's Profile

Tengku Muhammad Hasbi Ash-Shididqy was born in Lhokseumawe, North Aceh on March 10, 1904, or 22 Zdulhijjah 1321 H (Hamdani. F 2017). He is an Indonesian Muslim scholar proficient in fiqh, hadith, and the Qur’an (Igisani 2018). In genealogy, he is also the 37th generation of the descendants of the first caliph, Abu Bakr Ash-Siddiq (d. 12 H) (573-634 AD). Furthermore, his father and mother are Tengku Haji Muhammad Husein bin Muhammad Su’ud (the chief judge of Lhok Seumawe) and Teuku Amrah bint Teungku Qodli Sri Maharaja Mangkubumi Abdul Aziz, respectively. His father is also the 36th descendant of Abu Bakr Ash-Siddiq, whose ancestors originated from Mecca and settled in Malabar (India). These ancestors subsequently migrated to the archipelago and dwelled within Samudra Pasai in the 13th century (p. 19). As a descendant of Abu Bakr, the placement of Ash-Shiddidqy behind his name was unsurprising for Tengku Muhammad Hasbi due to his display of intelligence since childhood. He is also known as a stubborn and highly disciplined man, a hard worker, and a critical thinker. Despite being an independent figure, he often frees himself from tradition and monotony (Ibrahim & Syahrial 2016).

Tengku Muhammad Hasbi Ash-Shididqy held the position of Chairman of the Muhammadiyah Regional Council of Aceh Province from 1943-1946. In 1948, he was instructed by the Regent of North Aceh to become a teacher and lead the Islamic High
School (SMI) (Erdawati 2019). Besides efficiently studying Islamic sciences and Arabic, he also learned Dutch from a foreign citizen, to easily access all forms of information from the mass media controlled by the Dutch East Indies government (Sutarip., 2020). In the world of science and scholars, Tengku Muhammad Hasbi Ash-Shiddieqy is a reformist who thinks critically and is free from other influences. His writing activities also began in the early 1930s, when he initially wrote a booklet entitled *Penoeoept Moeloet*. In 1933, he also wrote articles in Solara Atjeh despite occupying the position of deputy editor. As a scholar and writer, Hasbi Ash-Shiddieqy was considered a prolific and high-quality expert. This indicated that he had written dozens of books and more than a hundred related articles. Based on these writings, 50 articles and 73 book titles (142 volumes) were observed (p. 19). Most of his works also emphasized fiqh, hadith, interpretation, monotheism, kalam, and general themes (Fitiani 2021).

2.0 Problem Statement

From classical to contemporary times, Indonesia often selects rich tafsir treasures with a background of qualified scholars. In this process, various interpretations with diverse patterns are constantly produced. These patterns are commonly found in the treasures of the archipelago’s interpretation (Musbikin 2014; Zuhdi & Abror 2021). The richness of this interpretation also emphasizes the unification of all patterns, such as the translation of an-Nur by Hasbi ash-Shidqy, which various scholars prioritize as tafsir with a fiqh design (Hamdani F 2016; Ismatulloh 2014; Jamal & Dalimonthe 2020; Rifaki 2021). Meanwhile, others stated that this process contained various patterns, such as fiqh (Islamic jurisprudence), morals, *adâb ijtimaī* (social view pattern), Sufism, and *tawhīd*. Irrespective of these conditions, the ilmi pattern of the an-Nur interpretation is still not considered and emphasized. According to (Firmansyah, Zuhdi, & Kaeni 2021), the an-Nur interpretation by Hasbi ash-Shidqy started the scientific evaluation of modern translation. This interpretation is reportedly carried out by the *bil al-matsūr* (based on hadiths from Prophet Muhammad SAW and his companions) method, where every explanation specifically originated from the prophet's *riwāyah* and *tabi‘īn* (Julmi 2021). The condition is also not ordinary when a few scientific explanations are observed with an interpretation of the *riwāyah* (explanation from the prophet and his companions) method. Irrespective of the multiple related analyses, Hasbi’s effectiveness in scientific interpretations is still not evaluated and developed. For example, Farid Adnir and Syukri (Adnir & Syukri 2020), only emphasized Hasbi’s perspectives of Hadith. Murdianto (Murdianto 2020) also compared the thoughts of Hasbi regarding the comparative analysis of surat al-Alaq 1-5 with al-Maraghi’s aqidah interpretations.

In terms of the effectiveness of an-Nur interpretation, punishment for corruptors was evaluated (Rohmah & Hidayat 2021). This indicated that thieves need to experience punishments similar to those of corruptors. Other reports also assessed the effectiveness of Quranic healthy halal food and drinks based on Hasbi’s interpretation, although this analysis’s scientific aspects were not emphasized (Hidayat & Munshihah 2021). According to Muhammad Amin (Amin 2021), the modern Tafsir an-Nur interpretation was fiqh patterned, including those written in the 20th Century. Irrespective of these conditions, this process did not deeply examine other patterns. The assessment of this fiqh pattern also aligned with other reports, where Hasbi’s interpretation and effectiveness were highly considered only (Syamsudin, Bakr, & Mardan 2021). Therefore, this study aims to determine the
following (1) The traces of science in an-Nur interpretation, (2) The depth of scientific explanation in this exegesis, (3) Whether the explanation affects all or specific kawniyah (universe), and (4) The presence of a scientific perspective and the explanatory references used in Hasbi’s book. It also aims to present new evidence regarding the ilmi (science) patterns of an-Nur interpretation to produce effective and efficient data.

3.0 Methodology
This qualitative study subsequently used a text analysis approach due to the description and presentation of the form and scientific facts in the an-Nur exegesis. In this case, data were sourced and obtained from the analysis of Tengku Muhammad Hasbi ash-Shidiqy, namely the interpretation of al-Quranul Majid an-Nur. These data were subsequently supplemented with previous related analyses (literature reviews), to produce the true conclusion of the overall study objectives.

4.0 Findings and Discussions
4.1 Ilmi’s Traces in Tafsir an-Nur Hasbi Ash-Shidiqy
The scientific interpretation of the Quran or tafsir ilmi focuses on the uses of scientific terms, to explain the Quran, as well as extract various related knowledge and philosophical visions (Anhari, Sadewo, & al-Asyì 2018). In this Holy Book, the ilmi pattern is a scientifically interpretative method which strives to explore the various sciences and philosophies of the intended verses (Miski 2019). This is used to determine the interpretation of Quranic verses through specific scientific concepts (Wajiri 2008). The ilmi pattern is also used to understand the Quran differently and as a form of God’s omnipotence in the universe (al’Ak 1968). In this modern period of rapid scientific development, this method is specifically needed to improve faith (al-Bana 2007; Syarif 2008).

Although several reports have stated that an-Nur interpretation was not an ilmi pattern, it is still more included in the category of fiqh and adâb ijtima‘î (social) designs (Marhadi 2013; Nursalim 2017). When deeply examined, the color of tawhid is likely to be very strong. The reviews in the an-Nur interpretation are also observed briefly in Hasbi’s explanation, where an easy and simple translation was directly presented to the subject matter (Sudariyah 2018).

Furthermore, the comparison of ilmi (science) traces was not very strong in this interpretation, although Hasbi stated that "science" was more of a logical perspective when explaining some kawniyah verses (Syarifuddin 2022). This was observed in the four interpretation volumes published by Rizki Putra, where only three contents contained scientific explanations in words and sentences. In this case, only one volume explained that the process of science was quite long. The following emphasize some examples of scientific interpretations on several themes,

4.1.1 Creation of Heaven and Earth
In the Quran, Allah states that he has created the universe and nothingness for a special purpose. Allah’s creation of this universe has been equipped with all systems and balances specifically designed for human life so that humans can take lessons from it (Baiquni, 1996). Below are some of Hasbi’s explanations regarding the creation of the heavens and the earth
Allah says in *surah al-Nazi’at* [79] verse 27-28

ءَاَن ْتُمْ اَشَدُّ خَلْقًا اَمِ السَّمَاۤءُ ۚ ب َنٰىهَاۗ رَفَعَ سََْكَهَا فَسَو ٰىهَا

The translation reads:

"Is it your creation that is greater or is it the sky he has built? He had raised the building and then perfected it".

Based on this verse, the following prioritizes the interpretation of Hasbi,

Allah telah menyatukan bagian-bagian langit dan mengikat satu sama lain, sehingga menjadi satu bentuk dan kukuh. Sedangkan bintang diciptakan menurut ukuran yang sesuai dengan ukuran yang lain. Masing-masing bintang ditahan agar tidak berguguran dan tidak melampaui batas daerahnya sehingga kumpulan bintang itu merupakan suatu Kawasan (Ash-Shiddiqy 2016)

God has united parts of heaven and bound them to each other to become one in solid form. Stars are created according to other corresponding sizes. In this case, each star is held from falling and not exceeding its regional boundries.

Allah says in *surah Fatir* [35] verse 41

ْۢ ب َٰٓ اِنَّ اللّٰهَ يُسِكُ السَّمٰوٰتِ وَالَّٰٓرَضَ اَنْ تُزُوْلَْ اِنْ تَزَالَتَآ اِنْ اَمْسَكَهُمَا مِنْ اَحَدٍ مِنْ عْدِهٖ

The translation reads:

"It is God who holds the heavens and the earth from disappearing. If both are to disappear, no one can hold them but Him. Indeed, He is the Most Merciful Again".

Regarding this verse, Hasbi explained that

Allah memelihara langit dan bumi dari terombang-ambing dengan suatu ikatan yang khusus yang oleh para pakar sekarang dinamai "Daya Tarik Menarik". Oleh karena itu semua yang ada di alam ini baik bumi, bulan, matahari dan planet-planet masing-masing beredar menurut falaknya dengan daya Tarik menarik itu. Jika Allah menghendaki supaya langit dan bumi tergelincir dari tempatnya maka tidak ada seseorang atau sesuatu yang mampu menahannya atau menghalanginya. (Ash-Shiddiqy 2016)
God kept heaven and earth from being swayed by a special bond called "Attraction of Interest." This showed that all the elements in this realm, including the earth, moon, sun, and planets, each circulated according to God's Falak with attractiveness. When He wants heaven and earth to slip from their positions, no individual or anything can stop or hinder the process.

According to these two verses, Hasbi explained the difficulty of creating the sky. This was because the sky had many parts, unified from actively or inactively swaying. In this case, a pull-out force was used in the unification process, which allows the trimming and stabilization of all objects in the required distribution line.

In surah Fusilat [41] verse 9-10 Allah says

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قُلْ اَىِٕنَّكُمْ لَتَكْفُرُوْنَ بِِلَّذِيْ خَلَقَ الَْْرْضَ فِِْ يَوْمَيِْْ وَتََْعَلُوْنَ لَهَٖ اَنْدَادًا ۗذٰلِكَ رَبُّ الْعٰلَمِيَْْ ۚوَجَعَلَ فِي ْهَا رَوَاسِيَ مِنْ ف َوْقِهَا وَبَرَكَ فِي ْهَا وَقَدَّرَ فِي ْهَآ اَق ْوَاتَََا فِِْٓ اَرْبَعَةِ اَيََّّمٍۗ سَوَاۤءً لِلسَّاۤىِٕلِيْْ
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The translation reads:

"Say, "Should you deny the God who created the earth two times, and you have allies for Him? That is the God of the universe." He created on it the mountains that were firmly on it, and he endowed and determined his food (for the inhabitants) four times sufficient for those who needed it."

Based on this verse, the interpretation of Hasbi is as follows,

Bagi Hasbi dalam tafsirnya yang dimaksud dengan menjadikan bumi disini adalah "menakdirkan wujudnya" bukan melaksanakan wujudnya (keberadaannya). Adapun yang dimaksud dengan "hari" disini adalah waktu, bukan hari seperti yang kita kenal didunia sekarang ini. Sebab pengertian hari seperti itu, pada masa itu belum ada. Adapun maksud bumi diciptakan dalam dua tahap Hasbi Menuturkan; Maksud dari Tuhan yang telah menjadikan bumi dalam dua tahap. Pertama, dijadikan sebagai benda beku, padahal sebelumnya hanya berupa gas. Sedangkan yang kedua dijadikannya 26 lapisan dalam enam fase seperti yang dijelaskan oleh ahli geologi, itulah Tuhan yang memelihara seluruh alam.

Allah juga yang menjadikan bumi itu di dalamnya beberapa gunung besar dan tinggi-tinggi yang dasarnya masuk dalam tanah bagaikan paku bumi untuk menjaga agar bumi tidak miring. Diapun menjadikan bumi sebagai tempat yang diberkati, penuh kebajikan yang memberikan manfaat kepada
The interpretation of the Earth's creation emphasized "to conquer," not carry out his form (existence). Meanwhile, "day" was interpreted as time due to the non-existence of its understanding.

The following interpretations were observed regarding the creation of the earth in two stages: (1) The previously gaseous earth form is presently used as a frozen object, and (2) A total of 26 earth layers were created in six phases, as described by geologists. This indicated that only God is capable of preserving the entirety of nature.

God also created some large and high mountains, whose bases were deeply embedded into the ground to keep the earth from tilting. Moreover, He beautified the earth as a blessed and benevolent place, which benefited human beings and other living organisms. These mountains were used as upstream rivers and a source of metal mines.

God also determined the comfortable food for the earth’s inhabitants through their respective conditions. Although the earth's population is increasing, food is still highly and consistently developed. They are also constantly using their abilities to obtain this food development sustenance.

God created the earth and the great/strong mountains and determined food for his people in two days each. This indicated that the creation and determination processes were carried out over 4 days or periods simultaneously.

In another surah, al-‘Araf [7] verse 54 Allah stated the following,
The translation reads:

"Surely your Lord is the God who created heaven and earth six times, and then He
dwells on ‘Arasy. He closes the night of the day, which follows him quickly. (He
created) the sun, moon, and stars subject to His command. Remember! Only His
possession is all creation and business. The grace of God, the Lord of the universe".

In surah Hud [11] verse 7 Allah says

The translation reads:

"He created heaven and earth six times and (before that) His ‘Arasy on the water.
(The creation was done) to test which of you is better charitable. Indeed, if you (the
Prophet Muhammad) said, "Surely you will be resurrected after death," the
unbelievers would say, "This (Qur'an) is nothing but real magic."

According to these verses, the interpretation of Tengku Muhammad Hasbi Ash-Shidiqy is observed as follows,

Allah menyebutkan tentang masa penciptaan langit dan
bumi dalam enam hari dimaksudkan supaya hamba
(manusia) mengerjakan sesuatu dengan perlahan-lahan,
berangsur-angsur dan berhati-hati. Selain itu juga unutk
menegaskan bahwa menjadikan langit dan bumi bukanlah
hal yang ringan yang bisa dilakukan oleh selain Allah. (Ash-
Shidiqy 2016)

Waktu enam hari itu adalah dua masa untuk menjadikan
bumi, dua masa untuk menciptakan makanan-makanannya,
dan dua masa lagi untuk menciptakan langit yang tujuh.
Maksud hari disini adalah masa yang hanya Allah sendiri yang
mengetahui batasnya, dan tentu tak sama dengan pengertian
hari di dunia. Ulama falaq menetapkan bahwa hari di planet
luar bumi dan di palnet lain berbeda dengan hari di bumi
terutama tentang jangka waktunya. (Ash-Shidiqy 2016)
God stated that the creation of heaven and earth in six days emphasized the slow, gradual, and careful performance of meant activities by the servant (man). This affirmed that the creation process was not for any living organism except God.

The six days emphasized in these verses also indicated two times each for the creation of the earth and its food, as well as the seven heavens. In this case, the interpretation of day as time focused on God's knowledge of all necessary limits. According to Falaq scholars, the "day" on the extraterrestrial and other planets differed from Earth's, especially during its period.

Based on these similar verses, several interpretations were obtained. Firstly, the time of day observed was not interpreted as the size of the present period, indicating that only God had the required knowledge. Secondly, the creation of heaven and earth for six days proved that humans slowly, gradually, and carefully consider the performance of learning activities. Thirdly, the creation of the earth for two days prioritized the preparation of blessings and benefits for human life. These interpretations aligned with This was similar to the al-Jawahir interpretation of Thantawi Jauhari (2004) and Muhammad Mufid Muwafiq (2020), where the following results were observed,

Yaumaini dalam tafsir Jawahir diartikan dua putaran, Ketika bumi sangat panas kemudian mendingin dan membeku, dan ini adalah putaran pertama. Putaran kedua munculnya gunung-gunung, muncul juga bebatuan, bumi disediakan semua kebaikannya agar dapat ditinggali manusia, bukan hanya hewan dan tumbuhan tetapi segala jenis barang tambang (Jauhari, 2004).

Yaumaini, in Jawahir's interpretation, means two cycles: when the earth is very hot, then it cools and freezes, and this is the first cycle. In the second cycle of the emergence of mountains, rocks also appear, and the earth is provided with all its best so that humans can inhabit it, not only animals and plants but all kinds of minerals.

Allah Swt. menjadikan langit dan bumi dalam waktu enam hari bukan berarti Allah tidak bisa menjadikan langit dan bumi dalam waktu singkat. Bahkan Allah Swt. dapat menjadikannya hanya dalam waktu yang sangat singkat atau bahkan sekejap mata. Hanya saja Allah Swt. menjadikannya selama enam hari untuk memberikan contoh kepada manusia bahwa ketika seseorang melakukan suatu pekerjaan dan ingin hasil yang baik, kuat dan juga awet, maka ia harus melakukannya dengan sabar dan teliti, bukan melakukannya dengan terburu-buru atau membuatnya secara asal.
The creation of heaven and earth within six days did not mean that God (Allah SWT) could not perform these tasks in a short time. This was cited as an example of a man who patiently and thoroughly performs a job performance for good, strong, and durable results (Muwaffaq 2020).

For Hasbi, the Qur’an was not a book of science that explains all theories and scientific rules. This indicated that the Holy Book was used to regulate human life and nature, although it did not contradict the theory of science (Ash-Shiddiqy 2016).

4.1.2 Hasbi’s Scientific Discussion of Earth Creation
According to the earth creation verses, Hasbi specifically and comprehensively explained the interpretation of time. This explanation was then completed using the theories of some scientists and the beginning of the earth’s creation period (Mukti 2017). In this case, only one of the four volumes of interpretation described the length of the earth creation theory as follows,

Kant (1755) seorang ahli filsafat bangsa Jerman dan Laplace (1755) seorang ahli ilmu alam bangsa Prancis mengemukakan teori kabut (neveltheori) mengenai susunan matahari. Menurut mereka matahari, planet-planet dan satelit pada zaman dahulu merupakan sebuah kabut gas yang pijar serta berkisar menurut sebuah sumbu (rotasi). Karena perkisaran itu makin lama makin bertambah cepat dan gas itu makin lama semakin rapat, sehingga bentuk gumpalan itu berupa sebuah lensa.


Masing-masing planet bertambah dingin, disebelah luar sudah sedemikian banyak suhunya sehingga gas itu menjadi cair dan lama kelamaan menjadi zat padat, dan terjadilah kerak bumi, proses pendinginan pada planet bumi masih berlangsung terus tetapi keadaan di teras bumi masih sangat panas.

Teori Kanc-Laplace itu hampir satu abad dianut orang. Akan tetapi dengan makin bertambah majunya ilmu pengetahuan penyelidikan-penyelidikan yang lebih teliti yang terus dilakukan ternyata membuktikan yang lain, sehingga teori Kant-Laplace ditinggalkan orang. Pada tahun 1905, Chamberlin dan Moulthon menyarankan teori baru yang terkenal dengan nama “teori planetesimal”. Teori ini mengemukakan bahwa susunan tata surya kita lebih dahulu merupakan suatu kabut pilin (spiral vormige
nevel). Pada kabut pilin ada kelompok-kelompok benda halus yang dinamakan “planetesimal”.


Selanjutnya, Jeans dan Jeffreys ahli ilmu bintang (inggris) mengemukakan teori pasang. Menurut teorinya pada suatu ketika terdapat sebuah bintang yang melintas sangat dekat dengan matahari. Sesuai dengan hukum ilmu alam tentang adanya gaya tarik menarik antara dua belah benda seperti terjadi air pasang naik di bumi sebagai daya tarik dari bulan maka pengaruh bintang yang melintas dekat matahari itu sedemikian besarnya, sehingga sebagian dari matahari mencuat keluar. Bagian yang tersumbat keluar itu berbentuk cerutu dan lama kelamaan terpisah dari bola matahari akan tetapi masih beredar mengelilingi matahari.


(Kant (1755), a German philosopher, and Laplace (1755), a French natural scientist, proposed the theory of fog (neveltheori) regarding the arrangement of the sun. This proved that the sun, planets, and satellites were ancient incandescent gaseous haze, which varied
according to an axis (rotation). Since the gas distribution was becoming faster and tighter, the blob's shape was observed as a lens. From this context, the subsequent and faster release of the equatorial parts led to the distribution of several tighter components that became the planets. Moreover, each planet rotates according to its axis, indicating that the shape was not very round as physically observed. Each planet also became colder, with very high temperatures externally observed. This led to the transformation of gas into a liquid, a solid substance over time. The occurrence of the earth's crust was also observed with the ongoing cooling process, although the situation on the core was still hot.

Kanc-Laplace's theory was adopted for almost a century and embraced by people. However, the theory was abandoned due to the increasing, continuous, and thorough scientific investigations. In 1905, Chamberlin and Moulton also suggested a new concept known as the "planetesimal theory," which indicated that the initial foundation of the solar system was a pilin fog (spiral forming nevel). In this foggy process, groups of subtle objects known as the "planetesimals" were observed. Using the attraction force, the bigger objects attracted the smaller ones, with a big ball observed in the middle. This big sphere and the planetesimals became the sun and the planets, respectively. Irrespective of the pilin fog nature since the beginning of the rotation, all the planets and satellites still rotated according to their axis. In this case, every circulation was observed around the sun at the center.

Furthermore, star scientists Jeans and Jeffreys (English) proposed the theory of pairs. This theory emphasized the passage of a star very close to the sun at a specific time. In this process, the great influence of the star caused some parts of the sun to stick out. This emphasized the laws of natural science about the existence of an attractive force between two objects, such as the tide rising on the earth as the attraction of the moon. The blocked part emerged as a cigar, separating from the sun's ball irrespective of its circulation. Some tighter groups were observed and equated with condensation cores in the cigar-shaped gas plume. These cores were subsequently divided into cigar-shaped parts over several spheres, leading to the emergence of the planets. In this case, small planets were the closest and farthest from the sun, while those in the middle were very large, such as Jupiter.

At the beginning of the earth's occurrence, some parts of the solar gas plume were observed, with the largest forms always rotating. This was because some of their lumps were detached and dumped far apart. Despite this, it continuously surrounded the remaining huge blob, which became the moon. After the coldness of the earth, the observed gas was transformed into a liquid state. Over time, this was often observed on the external part of one solid layer (the earth's skin). After the earth's skin's coldness, various creatures'
accommodation was observed. The accommodation of very simple plants and animals was initially observed in this realm, which then led to the increase of perfect lives.

Based on these scientific explanations, the scientists’ theories of the earth were not rejected, as they did not contradict the description of the Quran (Baiquni 1995). This emphasized the efforts of Hasbi regarding the lengthy and complicated levels of Earth's creation.

4.1.3 Creation of Man and Plant
Allah Says in surah Gafir [40] verse 68

هو الذي يُبَشِّرُ ٓوُفِيَّتْ ٓاِنَّ اَمْرًا فَإِذَا قَضَىٰ أَمِرًا قَالَ لَهُ ٓوُقِّعْ ٓكُنْ فَيَكُونُ

The translation reads:

“He is the one who turns on and off. So, when He was about to establish something of a business, He simply said to him, "Be it!" Then be that thing”.

According to this verse, the interpretation of Hasbi is as follows,

Dialah, Allah yang menciptaakan dan menjadikan kamu dari tanah. Logikanya, manusia dijadikan dari air mani yang kemudian berproses menjadi segumpal darah. Darah terjadi dari makanan dan makanan berasal dari tumbuhan, sedangkan tumbuhan terjadi dari zat-zat yang ada dalam tanah, kemudian tanah menjadi nutfah (mani). Lalu menjadi segumpal darah dan secara bertahap berproses hingga lahirlah manusia dari Rahim ibu mereka. Kamu keluar dari ibumu dalam bentuk bayi, dan kemudian tumbuh berkembang menjadi dewasa sampai umur tua, dan Kembali dalam kondisi lemah. Diantara kamu ada yang meninggal sebelum usia tua dan ada juga yang sampai sangat tua sekali Tuhan berbuat demikian supaya kamu mencapai waktu yang ditentukan untuk masing-masing dari kamu. (Ash-Shiddiqy 2016)

God created everything and everyone from the ground. Humans are logically developed from semen, which then proceeds into a lump of blood. Furthermore, blood occurs from food, which is a derivative of plants. These plants then occur from soil substances, which become nutfah (semenal). This becomes a lump of blood and is gradually processed until the birth of humans from their mother’s womb. In this case, humans emerge as babies, which develop into adulthood until old age and return to a weak state. Some people also die before and during old age, according to the living time granted to them by God.
In surah al-Nahl [16] verse 11 Allah Says

ْبِتُ لَكُمْ بِهِ الزَّرْعَ وَالزَّيْتُوْنَ وَالنَّخِيْلَ وَالَْْعْنَابَ وَمِنْ كُلِّ الثَّمَرٰتِۗ اِنَّ فِِْ ذٰلِكَ لَْٰيَةً لِقَوْمٍ يَّتَفَكُّرُوْنَ

The translation reads:

"With that (rainwater) He grows for you plants, olives, dates, grapes, and all sorts of fruits. Indeed, there is a sign (the greatness of God) for thinking".

Using fertile water, the plant contained various characteristics, types, and shapes. During the rainy period, various kinds of plants and trees were developed, with some signs and propositions emphasizing the oneness of Go.

This explanation prioritized the scientific evaluation of human creation flow through water. In this case, the water contained in the sea, river, or lake experiences evaporation due to the sun's heat and is hugely deposited in the atmosphere. Moreover, a high-temperature change converts the evaporated steam into dew through condensation. The accumulation of this dew then becomes a cloud over time, containing a large amount of water. This accumulation of water causes a change in cloud color, which subsequently falls to the earth as rain (Sofia 2021).

4.1.4 The Scientific Theory of the Qur'an and the Concept of Hasbi ash-Shidiqy

Besides emphasizing theology and eschatology, the Quranic instructions to man also prioritized the patterns by which humans live appropriately in this world, including scientific connections (Wardani 2020). Since the passing of the Qur'an has become the guide of human life, the purposeful living standards of man without this Holy Book are impossible. According to Fadi (2022), numerous Qur'anic verses explained scientific facts that were impossible to be discovered or tested when the Holy Qur'an was revealed to the Prophet Muhammad PBUH. These are sometimes called the scientific cues of the Qur'an (Azzubaidei & Yusoff, 2023). Many scientific phenomena were explained in the Qur'an, such as in Q.S Al-Mu'minun: 12-14 (Aeny et al 2020). This indicated an in-depth analysis of the verses' facts to penetrate and capture spiritual and scientific implications (Prakoso 2020). The concept of science has existed since Ghazali's time. This was then continued by ar-Razi in the interpretation of mafath ghaiib, although the science footing emphasized the Greek scientific concept (Aniq 2020). In the Qur'an, many verses contained balance and were more lively by combining kawniyah and qawliyah (Nurdin & Fauziah 2022) or other factual knowledge concepts. According to Kuntowijoyo, the transcendental structure of this Holy Book was a normative and philosophical idea that was formulated into a
theoretical paradigm. This provided a framework for developing empirical and rational science regarding the pragmatic needs of Islamic society (Saripudin, Syukri, & Ahmad Badrussyamsi, 2021).

Irrespective of these conditions, science still needs to strictly meet scientific standards and ethics, with religion being an amilu sholihat field. When the development of science needs to emphasize religion, the problems encountered are highly complicated (Sahidin & Muslih 2022). This includes the high clarity of verse interpretation with scientific theory, leading to many minor reactions from ilmi scholars due to the alignment of sacral and profane elements (Junaidi 2022). In this case, Hasbi provided an outline for science and religion unification, which needs to consider several factors. Firstly, only the zarrah (atom) resembling fog and water was observed before God created heaven and earth. This atom subsequently became the main element of the present natural occurrence. Secondly, heaven and earth were originally a mixture before God separated them. In this case, the heat of the earth was removed to accommodate human life. The moving air also caused rain and often formed rivers and seas. Thirdly, the sky was not a planet, although an infinite space only understood by God accommodated the entire family of circulating stars. However, the interpretation of 7 Skies emphasized seven groups of star families, each circulating according to its distribution line (Ash-Shiddiqy 2016).

Based on this presentation, Hasbi seemed to agree with some theories of heaven and earth creation, such as the fog and Bigbang concept initiated by Hubble and the Qur'an, especially surah al-Anbiya: 30. When evaluating the sky, the Qur'an only the 7 heavens without the planets' locations were mentioned. The sky was also an infinite space, where man's limitations did not exceed the collection of the contained stars. This was due to the stoppage of science at these limitations (Ash-Shiddiqy 2016).

5.0 Conclusion
According to the translational pattern of the adabi ijtimai, Hasbi could not sort out the appropriate inclusive designs to be used in the interpretation process. This was due to the existence and inclusion of all interpretation and ilmi (science) forms, although their levels were not highly observed; these conditions were supported by the an-Nur interpretation of the kawniyah verse, where a few scientific theories or perspectives were observed. This was understandable because of the disinterest of Hasbi's interpretation in portraying the science concepts. In this case, not all the kawniyah verses were interpreted through ilmi, although the Quranic passages prioritizing nature were not small. Therefore, only the central theme of ilmi was selected for interpretative explanations regarding the creation of heaven and earth and other related components. This was due to its importance at that time, subsequently becoming a mass topic of conversation.

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