

THE MOVEMENT OF THE SUN IN QS. YASIN VERSE 38: ANALYSIS OF THE MEANING OF TAJRĪ LI MUSTAQARRIN LAHĀ FROM THE PERSPECTIVE OF THE QUR'AN AND ASTRONOMICAL SCIENCE

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This paper examines the concept of the Sun's motion in QS. Yāsīn verse 38 through an analysis of the phrase tajrī li mustaqarrin lahā using an integrative approach that combines Qur'anic exegesis and modern astronomy. The study aims to reveal the linguistic meanings and exegetical interpretations of this phrase according to classical and contemporary Qur'anic commentators, as well as its relevance to scientific findings concerning the Sun's motion within the galaxy. The methodology employed is qualitative library research, utilizing thematic and interdisciplinary tafsir approaches. The findings indicate that the term tajrī denotes continuous and orderly motion, while mustaqarr conveys a flexible meaning encompassing both spatial and temporal dimensions. This conceptual understanding shows a correspondence with modern astronomical explanations of the Sun's motion, while the study emphasizes the importance of a moderate stance in relating the Qur'an to science and avoiding speculative claims of scientific inimitability (i'jāz 'ilmī). Thus, QS. Yāsīn verse 38 can be understood as a theological impetus for scientific reflection on natural phenomena.

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INTRODUCTION

The phenomenon of the movement of celestial bodies, especially the sun, has been a subject of human attention since the early civilization era. The sun, as the center of the solar system and the primary source of energy for life on Earth, holds a significant position in the study of cosmology, astronomy, as well as religious reflection. Ancient civilizations such as Babylon, Greece, and Egypt observed the movement of the sun for the purposes of calendars, agriculture, and navigation, although their understanding was still geocentric and speculative. As modern science developed, astronomical studies have



shown that the sun is not static, but rather moves dynamically within the Milky Way galaxy at specific speeds and trajectories. In Islamic tradition, the Qur'an is not only a book of spiritual and moral guidance but also a source of intellectual reflection that encourages humans to contemplate the universe (al-kawn). The Qur'an repeatedly invites humans to observe the phenomena of the sky and the earth as signs (āyāt) of Allah's power. One of the cosmic phenomena explicitly mentioned is the movement of the sun, as stated in Surah Yasin, verse 38, which says:

وَالشَّمْسُ تَجْرِي لِمُسْتَقَرٍّ لَهَا ذَلِكَ تَقْدِيرُ الْعَزِيزِ الْعَلِيمِ (٣٨)

"And the sun runs on its fixed course for a term (appointed). That is the Decree of the Almighty, the All-Knowing."

This verse indicates that the universe does not operate randomly. Everything moves according to the decree and will of Allah. Specifically, in the phrase *Tajri li mustaqorrihā*, linguistically, the word *tajrī* comes from the root word *jarā-yajrī*, which means "to flow, to move continuously, or to move dynamically." The use of this word indicates that the movement of the sun is active and continuous, not static or accidental. Meanwhile, the term *mustaqarr* lexically means "a place of settlement," "a point of determination," or "a designated final boundary." The combination of these two terms opens up a wide space for interpretation, both from the perspective of classical exegesis and in dialogue with modern astronomical findings.

In the context of classical exegesis, some scholars interpret this verse as depicting the orderly movement of the sun in its orbit until a certain time, which can be understood as the limit of life or its stopping point. Meanwhile, from the perspective of modern science, particularly astronomy, the sun is known to move in its orbit around the center of the Milky Way galaxy at a certain speed and direction. If its distance were slightly closer, the Earth would burn. If slightly farther, all life would freeze. But Allah maintains its distance and power to remain balanced for billions of years. Interestingly, modern astronomical science actually confirms that the sun indeed moves. The sun not only rotates on its axis but also moves around the center of the Milky Way galaxy at a speed of about 220 km per second in a cosmic cycle called a galactic year. In addition, the sun, along with the entire solar system, also moves toward a certain direction in interstellar space. This scientific fact dispels the old notion that the sun is stationary, while also opening up a space for constructive dialogue with the statements of the Qur'an about the movement of the sun.

This phenomenon becomes a sign that no other power is capable of creating a system as precise as this except Allah. From this, humans are reminded not to be arrogant and to acknowledge that all knowledge is only a small portion of Allah's infinite knowledge. In this context, Surah Yāsīn, verse 38, becomes very relevant to study in depth with an interdisciplinary approach. The study of exegesis does not stop at linguistic and theological meanings, but can also be enriched through the perspective of modern astronomical science. However, the dialogue between the Qur'an and science needs to be conducted methodologically and proportionally so as not to fall into speculative claims of scientific miracle or to force the conformity of the text with tentative scientific theories.

Therefore, this study attempts to analyze the meaning of the word *tajrī li mustaqarrin lahā* in QS. Yasin verse 38 through the approach of Qur'anic exegesis, by referring to the views of classical and contemporary mufasssirs, and critically relating it to modern astronomical findings on the movement of the sun. This approach is expected to

demonstrate that the Qur'an is not in conflict with scientific facts, while still maintaining the authority of the revealed text as the primary guide.

LITERATURE REVIEW

The study of the movement of the sun in QS. Yāsīn verse 38 has been discussed in various tafsir and contemporary science literatures. In modern exegesis, cosmic verses are understood as āyāt kawniyyah intended to affirm the order of nature as a sign of Allah's power. Al-Zuḥaylī (2015) explains that the phrase *tajrī li mustaqarrin lahā* indicates the sun's movement that occurs regularly according to divine decree, not meant as a technical astronomical explanation. A similar view is expressed by Shihab (2017), who emphasizes that the compatibility of the Qur'an with science lies in general principles, not in the details of scientific mechanisms.

From a linguistic perspective, the study of Qur'anic semantics shows that the word *tajrī* carries the meaning of continuous and dynamic movement, while *mustaqarr* indicates determination of space and time (Al-Aṣḥānī, 2016). This linguistic analysis reveals that the Qur'an describes the movement of the sun as a regular phenomenon that is subject to certain laws, in line with the concept of *sunnatullāh* in the universe (Mustaqim, 2019).

In modern astronomy, the sun is understood as an actively moving star. Astronomical research explains that the sun rotates on its axis and moves around the center of the Milky Way Galaxy in a measured and stable orbit (Karttunen et al., 2016; Seeds & Backman, 2018). These findings indicate that the sun is not static, but rather moves within an orderly cosmic system.

The study of the relationship between the Qur'an and science requires a proportional methodological approach. Contemporary studies emphasize that cosmic verses are not intended to validate specific scientific theories, but rather to provide a framework of universal meaning regarding the order of nature (Mustaqim, 2016). Therefore, this research positions QS. Yāsīn verse 38 as a reflective basis that is conceptually aligned with modern astronomical findings, without making excessive claims of scientific miraculousness.

RESEARCH METHODS

This research is a qualitative study with a library research approach. This approach was chosen because the object of study consists of the Qur'anic text, tafsir books, and scientific literature in the field of astronomy, rather than empirical phenomena that are directly observed. A qualitative method is used to interpret the meaning, concepts, and relationships between the revealed texts and scientific findings in a deep and comprehensive manner.

This study uses a thematic interpretation approach (*tafsīr mawḍū'ī*) focusing on the theme of the movement of the sun in the Qur'an, particularly Surah Yasin, verse 38, as well as an interdisciplinary approach, integrating the science of tafsir with modern astronomy.

The data sources in this study are divided into two main categories. Primary data includes the text of the Qur'an itself, which is the main focus in examining the meaning of the phrase '*Tajri li mustaqarrin laha.*' In addition, classical tafsirs such as the works of al-Ṭabarī, al-Qurtubī, and Ibn Kathīr are used to gain historical and theological insights regarding the interpretation of this phrase within the broader context of language and

Islamic teachings. Contemporary tafsirs, such as the works of Muhammad Shihab, Tantawi, and Tafsir al-Munir by Wahbah al-Zuhayli, are also considered to explore modern perspectives on these verses. Classical Arabic dictionaries are also important sources to trace the roots of the words and their variations in meaning, which can provide a deeper understanding of how these words are used in other religious texts. Secondary data, on the other hand, includes modern astronomical literature that discusses the movement of the sun within the galaxy, solar rotation, galactic orbit, and stellar evolution, sourced from astronomy textbooks and scientific publications. This data is used as a conceptual comparison, not as a literal verification tool against the text of the Qur'an. The data analysis technique is carried out in three stages:

1. linguistic analysis of the terms *tajrī* and *mustaqarr*;
2. comparative exegesis analysis between classical and contemporary
3. interpreters correlative-critical analysis between the meaning of exegesis and modern astronomical findings.

All analyses were conducted with the principle of methodological caution to avoid imposing meanings (*taḥmīl al-naṣṣ mā lā yaḥtamīl*) and to maintain the authority of the revealed text as the primary source. The selection of these sources also aims to ensure the validity and accuracy of the data, as well as to ensure that this research remains relevant to the latest developments in both fields, namely religious studies and science.

RESULTS AND DISCUSSION

A. The Context of Q.S. Yāsīn Verse 38 in Qur'anic Cosmology

Q.S. Yāsīn verse 38 is part of a series of cosmic verses (Q.S. Yāsīn: 37–40) that present Qur'anic cosmology as *āyāt kawniyyah* (cosmic signs) demonstrating Allah's power and decree in governing the universe. The verse states:

وَالشَّمْسُ تَجْرِي لِمُسْتَقَرٍّ لَهَا ۚ ذَلِكَ تَقْدِيرُ الْعَزِيزِ الْعَلِيمِ ٣٨

“And the sun runs to its appointed place; that is the decree of the Almighty, the All-Knowing.”

Within the framework of Qur'anic cosmology, this verse affirms that celestial bodies do not move randomly or autonomously but are subject to precise divine laws. Classical exegetes such as al-Ṭabarī explain that the term *tajrī* indicates continuous and uninterrupted motion, while *li mustaqarrin lahā* refers to a boundary, destination, or orbital system predetermined by Allah for the sun whether understood as its daily setting point, annual cycle, or its ultimate cosmic endpoint on the Day of Judgment.

In Qur'anic cosmology, the sun, moon, day, and night are described as moving harmoniously without overtaking one another (Q.S. Yāsīn: 40), reflecting the concept of cosmic order (*al-niẓām al-kawnī*). Al-Rāzī emphasizes that the specific mention of the sun in verse 38 serves as a rational argument (*dalīl 'aqlī*) for divine oneness and power, as even such a massive and radiant celestial body remains fully subject to fixed and measurable laws. Ibn Kathīr views this verse as a refutation of pre-Islamic cosmological beliefs that attributed independent will or power to celestial bodies, since the Qur'an attributes all motion exclusively to Allah's decree (*taqdīr*). Thus, Q.S. Yāsīn verse 38 not only describes an astronomical phenomenon but also instills a Qur'anic cosmological

worldview: the universe moves dynamically, orderly, and meaningfully as a sign of divine sovereignty, rather than as an autonomous entity devoid of metaphysical purpose.

B. Linguistic Analysis of the Phrase *Tajrī li Mustaqarrin Lahā*

1. The Meaning of *Tajrī*

The word *tajrī* (تَجْرِي) in Q.S. Yāsīn verse 38 derives from the root ج-ر-ي which lexically signifies continuous, flowing, and orderly movement. Ibn Fāris explains that all derivatives of this root return to a single core meaning: sustained and uninterrupted motion, whether applied to liquids or non-material entities. Therefore, the use of *tajrī* in reference to the sun not only indicates movement but emphasizes continuity and regularity.

Morphologically, *tajrī* is a present-tense verb (*fi'il muḍāri'*), which in Arabic grammar conveys the meanings of continuity (*istimrār*) and renewal (*tajaddud*). Ibn Hishām states that when the present tense is used in the context of natural laws (*sunnatullāh*), it implies stable and recurring certainty. Accordingly, the Qur'anic choice of *tajrī* indicates that the sun's motion is a permanent and consistent cosmic phenomenon, not a transient occurrence.

Classical exegetes gave particular attention to this term. Al-Ṭabarī interpreted *tajrī* as *tasīru fī falakihā sayran muntaziman*—the sun travels along its orbit in an orderly manner. This indicates that early scholars already understood the verse as implying an organized system of motion rather than mere apparent displacement. Al-Zamakhsharī similarly emphasized the rhetorical power (*balāghah*) of *tajrī*, noting that it is commonly used for smooth, stable, law-governed movement, such as flowing water, making it more precise than other verbs denoting motion without order.

Fakhr al-Dīn al-Rāzī further expanded the interpretation by asserting that the motion referred to need not be limited to sensory observation alone. He argued that the term *tajrī* allows for the possibility of real motion not fully perceived by humans of that era. Linguistically, therefore, *tajrī* is inclusive of future scientific discoveries while remaining faithful to its original Arabic meaning. Thus, both linguistically and exegetically, *tajrī* conveys continuous, orderly motion governed by divine law, forming the foundation for understanding the phrase *tajrī li mustaqarrin lahā* and enabling constructive dialogue between Qur'anic exegesis and modern cosmology without excessive scientific literalism.

2. The Meaning of *Li Mustaqarrin Lahā*

The phrase *li mustaqarrin lahā* consists of three elements: the preposition *lām* (لِ), the word *mustaqarr* (مُسْتَقَرٌّ), and the pronoun *lahā* (لَهَا). Most grammarians and exegetes understand the *lām* here as *lām al-ghāyah*, indicating direction, purpose, or an endpoint. Ibn Hishām al-Anṣārī explains that this type of *lām* links an action to a predetermined endpoint rather than to causation or possession. Linguistically, this affirms that the sun's motion has orientation and limits, not aimless movement.

The term *mustaqarr* fundamentally signifies stability and settlement. Morphologically, it can function as both a noun of place (*ism makān*) and a noun of time (*ism zamān*). Al-Rāghib al-Aṣfahānī notes that in the Qur'an, *mustaqarr* often carries dual spatial and temporal meanings depending on context. Thus, *li mustaqarrin* can mean “toward a fixed place” or “toward an appointed time.”

Classical exegetes offered diverse interpretations. Al-Ṭabarī described the sun's *mustaqarr* as the limit of its course established by Allah, whether interpreted as its daily setting or its final endpoint before the Day of Judgment. Al-Zamakhsharī emphasized that *mustaqarr* should not necessarily be understood physically but rather as a cosmic system operating under precise divine laws. Fakhr al-Dīn al-Rāzī further suggested that the verse leaves room for aspects of solar motion not yet known to humanity, making *mustaqarr* conceptually open to future scientific discovery.

From a rhetorical perspective, the indefinite form (*nakirah*) of *mustaqarr* conveys grandeur and magnitude. ‘Abd al-Qāhir al-Jurjānī explains that indefiniteness in cosmic contexts often signals realities beyond full human comprehension. This implies that the sun's *mustaqarr* is part of a vast, measured cosmic system that cannot be fully grasped through simple observation alone.

In relation to modern science, *li mustaqarrin lahā* corresponds conceptually with astronomical findings that the sun is not static. Modern astronomy demonstrates that the sun orbits the center of the Milky Way galaxy at approximately 220 km/s and has a finite lifespan governed by stellar evolution. These findings align with the linguistic meanings of *mustaqarr* as both spatial determination (a defined orbit) and temporal determination (a limited cosmic lifespan). Consequently, Qur’anic language proves neither contradictory to science nor dependent on speculative scientific claims, but rather offers an inclusive semantic framework compatible with scientific advancement.

C. The Motion of the Sun from the Perspective of Modern Astronomy

From the perspective of modern astronomy, the motion of the sun is understood as part of a complex and measurable cosmic dynamic. The sun is not absolutely stationary but undergoes several types of motion simultaneously. First, the sun rotates on its axis, with a rotation period of approximately 25 days at the equator and about 35 days near the poles, a phenomenon known as differential rotation. This variation occurs because the sun is composed of plasma rather than solid matter, causing its layers to rotate at different speeds. This rotation significantly influences solar activity such as sunspots, solar flares, and the solar magnetic field.

Second, the sun moves together with the entire solar system around the center of the Milky Way galaxy in what is known as a galactic orbit. This motion occurs at a speed of approximately 220 km/s, completing one revolution every 225–250 million years, commonly referred to as a galactic year. This orbit is governed by the galaxy's gravitational structure, including the influence of dark matter, demonstrating that the sun follows a defined and stable cosmic trajectory.

Third, the sun also moves relative to nearby stars toward a point known as the solar apex in the constellation Hercules. This motion is detected through Doppler shifts in stellar light and confirms that no celestial body in the universe is truly static. Modern astronomy thus affirms that the sun's motion is multidimensional rotational, galactic, and relative all governed by universal physical laws such as Newtonian gravity and Einstein's general relativity.

D. Correlation Between Tajrī li Mustaqarrin Lahā and Modern Astronomy

The phrase *tajrī li mustaqarrin lahā* in Q.S. Yāsīn verse 38 demonstrates a significant convergence between Qur’anic linguistic meaning and cosmic reality later explored by modern astronomy. Linguistically, *tajrī* denotes continuous and dynamic

motion, while *mustaqarr* implies determination, limit, or endpoint. This construction suggests that the sun's motion is systematic and law-governed rather than random, aligning with both revelation and scientific understanding.

First, *mustaqarr* may be understood as a specific orbit. Modern astronomy confirms that the sun not only rotates but also orbits the galactic center along a stable path governed by gravitational laws. This interpretation aligns with contemporary exegetes who view *mustaqarr* as a divinely ordained path without assigning technical astronomical detail to the Qur'anic text.

Second, *mustaqarr* can be interpreted as a cosmic system. Classical exegetes often understood it as a divinely determined system (*nizām muqaddar*) governing celestial motion. This parallels modern cosmology, which views the sun as part of interconnected systems from the solar system to the galaxy and beyond operating within a precise cosmic order.

Third, *mustaqarr* may signify a cosmic temporal limit. Some exegetes, such as Ibn Kathīr, interpreted it as the time when the sun ceases its function near the end of the world. Conceptually, this resonates with modern astrophysics, which holds that the sun has a finite lifespan and will eventually exhaust its nuclear fuel. While the Qur'an does not describe the physical mechanism, both perspectives acknowledge a cosmic endpoint.

Nevertheless, claims of scientific miracle (*i'jāz 'ilmī*) must be approached critically. Overly literal identification of modern astronomical discoveries with Qur'anic terms risks imposing meanings unsupported by linguistic evidence (*tahmīl al-naṣṣ mā lā yaḥtamil*). Scholars such as al-Shāṭibī stress that the Qur'an's primary purpose is guidance, not technical scientific exposition. Therefore, scientific miracle claims are best understood at the level of conceptual harmony rather than literal equivalence with provisional scientific theories. In this balanced framework, Q.S. Yāsīn verse 38 manifests Qur'anic wonder through its precise conceptual articulation of cosmic order without dependence on mutable scientific models.

CONCLUSION

Based on the analysis above, Q.S. Yāsīn verse 38 clearly affirms the concept of the sun's motion as part of a cosmic order established by Allah. Linguistically and exegetically, the term *tajrī* signifies continuous, dynamic, and orderly motion, while *li mustaqarrin lahā* conveys multidimensional determination encompassing both spatial (orbital or systemic) and temporal (existential limit) aspects.

Exegetical perspectives classical and contemporary agree that the verse is not intended as a technical astronomical explanation but as a theological affirmation of the universe's submission to divine decree. Conceptually, however, its meaning aligns with modern astronomical findings that the sun is not static but undergoes rotational and galactic motion within a defined cosmic cycle.

The relationship between the Qur'an and science in this verse thus operates at the level of shared principles rather than literal identity. Claims of scientific miracle should therefore be approached proportionally and critically, avoiding the elevation of tentative scientific theories to definitive meanings of revelation. Through a balanced approach, Q.S. Yāsīn verse 38 emerges as a cosmic verse that strengthens scientific reflection while affirming a Qur'anic worldview of an ordered, meaningful universe entirely subject to Allah's decree.

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