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Understanding Cosmology: The Binaries of the Sun and Moon in the Quran

Introduction

The Quran encapsulates the varying differences between that which is visible and that which is not. In the scope of cosmology, the Quran exhibits clear distinctions between the visualized perspectives of the Sun, the Moon, and other cosmological phenomena. In this paper, a clear distinction will be made between these understandings in the context of the Quran as well as the scientific contexts. Understanding the exhibitions of cosmology from an ample viewpoint of the Quran will allow for a substantial claim to be made upon the variability of the Quranic and scientific perspectives. This paper argues that the Quran offers a view on cosmology through an anthropocentric lens, using the cosmos as a human-centered planetarium, contrary to the scientific perspective, which uses a cosmocentric and biocentric perspective to analyze the universe as a whole, without a general focus solely on the human experience. Using the primary text of the Quran and varying formats of secondary sources, this paper aims to create a viable distinction between the two mediums.

Cosmology in the Quran

The Sun, the Moon, and Celestial Orbits in the Quran

The sun, the moon, planets, stars, and other varying cosmological events have been mentioned in the Quran. There is significant external evidence that allows a conclusion to be made that these themes are relevant to the rest of the Quran. Through the Medinan and Meccan periods of the Quran, each of these themes is discussed in a distinct lens. It is clear, through a

generalized perspective of the two separate periods of Muhammad's life, that the Quran displays a larger volume of mentions of binaries in the Meccan Quran, specifically the early Meccan period. Although there is explicit mention of the binaries of the sun and the moon in these early Meccan surahs, it is also imperative to note that they have been defined independently.

A key introductory understanding of the cosmos in the Quranic perspective is present in Surah 7, Al-Ar'af. In verse 54, a precedent for the intentional creation of the sun, the moon, and the stars is exalted. "He created the sun, moon, and the stars to be subservient to His command." (Abdel Haleem 2016). This verse provides a basic understanding of the personification in the submission of each of these astronomical themes. The Quran explicitly states here that the sun, moon, and stars were "created" and were not intrinsically created by chance or without external force. This is vital to understanding the wider context of the Quran, as according to the Quran, all matter is subjected to God. In Surah 21, Verse 33, again, this theme of God being the creator of all earthly matter is present, "It is He who created night and day, the sun, the moon, each floating in its orbit" (Abdel Haleem 2016). The verse does something different from the one mentioned above. It explicitly mentions the orbit. This is also a substantial revelation in the Quran because it now presents that the God of the Quran is not only speaking of earthly matter, or matter that is seen from the earth (sun, moon, stars), but that He is also aware of otherworldly aspects, such as the orbital relations of how each of these astronomical components work together. Barbara Freyer Stowasser states in her book *The Day Begins at Sunset: Perceptions of Time in the Islamic World* that the role of the sun and the moon in the context of the Quran varies. She states that the role of the sun is to tell time and that the role of the moon is to understand months and years. (Stowasser 2014).

Binaries of the Sun and the Moon

The Quran exudes throughout the mention of many varying binaries. From man to woman, night to day, overt and hidden, Quranic text enjoys the usage of binaries. Though there can be many explanations for this, it can illuminate emphasis in a cosmological context. Binaries are often used in literature and media to create a larger scope of understanding for each object on its own. When comparing men and women in the Quran, it is clear that this is done to emphasize the role of a man and the role of a woman. Surah 9, Verse 67 and 71 are examples of a conjunction of this binary (Abdel Haleem 2016), which occurs often throughout the Quran. Understanding why the Quran uses binaries is important because it allows readers to understand the intent of the Quran in certain phrasing and how it wants to be perceived by the reader. It is interesting to note that a theme of these binaries is to be found within the early Meccan surahs. In lecture, it was taught that chronologically early Meccan surahs represent the beginning of Muhammad's career. It can then be concluded that binaries are a representation of the early onset execution of the Quran. In layman's terms, these binaries are also a tool for ease of understanding.

They reduce grey areas and define straightforward conclusions, exuding that it is either one or the other. This can also bridge another conclusion: during the beginning of Muhammad's career, the goal was to recruit and spread the word of God, (Quran), and it is critical to understand that the political climate of the early phases of Muhammad's career was that of the pagan Arabs who believed in something entirely opposite to what Muhammad was trying to preach. The early Meccan surahs share many characteristics that make them generally simpler and easier to understand, which shows the intent that the Quran was trying to share fundamentals with a wider audience. The relations of the binary in respect to the Sun and the Moon throughout

the Quran in various early Meccan surahs also allude to a major theme in the Quran: to prostrate (Abdel Haleem 2016). Prayer is mentioned everywhere in the Quran, and a clear grouping can be made between prayer, the sun, the moon, and time.

There is no clear binary for prayer in the Quran, other than perhaps those who do not pray, signifying that prayer in itself is all that needs emphasis. Similarly, the Quran makes no mention of otherworldly things such as animals or plants having to prostrate, which allows for the conclusion that praying is tied universally to the human experience. This statement allows for the discussion to develop into a clear correlation between the binaries of the sun and the moon and the human experience, tying into the anthropocentric tense of the Quran. Surah 2, Verse 29 provides a distinct example of one of many verses in the Quran that centralizes the human being above and outside of the rest of the world (Abdel Haleem 2016). This verse states: “It is He who created for you all of that which is on the earth. Then He directed Himself to heaven, [His being above all creation], and made them seven heavens, and He is Knowing of all things.” (Abdel Haleem 2016). Abdul Fatah and Imam Taufiq, in their article *Environmental Interpretation: Hermeneutic Analysis Of The Interpretation Of Anthropocentric Verses In Al-Qur'an*, state that with such verses, there is a key differentiation placed with respect to the role of humans on this earth (Fatah and Taufiq 2019). They state that the text is centered around the idea that humans were placed on this earth intentionally and all that is created around them is for them (Fatah and Taufiq 2019). This supports my claim in stating that the early binaries of that which is apparent (i.e., sun, moon; day, night; believer, disbeliever) were purposefully placed to allow the reader of the Quran to perceive the Quran and the religion it was preaching as being for them (the human

being), which was a major difference from the religion they were following prior, which did not give its followers this sense of self-regarding confidence that the Quran was trying to encompass.

Cosmology and Time

The most generalized understanding of cosmology in the Quran ties in heavily with the Islamic understanding of time. Time is a centralized theme of the Islamic faith as it is the determiner of when to prostrate, and prostration is one of the integral pillars of the Islamic belief system (Fatah and Taufiq 2019). The Quran states in Surah 17 verse 78, “So perform the regular prayers in the period from the time the sun is past its zenith, till the darkness of the night, and [recite] the Quran at dawn—dawn recitation is always witnessed” (Abdel Haleem 2016). Here there are blatant mentions of the sun being a time-telling tool for human prayer. There are also implicit mentions of phases of the sun, such as the dawn. The dawn indicates the first visible appearance of light in the sky after a period of darkness which encapsulates the night prior. Generally, it is considered the beginning of the day, and the light that is derived from it has come from the sun. Using the Quranic revelation of time, there is a clear contrast to how modern time is told. We have a 24-hour period that defines each day, however, the Quran challenges that, as with the rhetoric of the sun indicating time, the Quran defines the internal clock of a human by what is presented outside. Although the concept of daylight savings is widely practiced, the versification of this text aims to establish permanent daylight savings, in which the time of day and prayer is defined by when the sun rises and falls. This creates an automatic day-by-shift and differences in the Islamic prayer time each and every day, which shows as a more stretched-out day in the summer and a more condensed day in the winter months. With respect to the sun, much of what the Quran has decreed relies upon prayer and prayer time.

Opposingly, the moon has been decreed to offer a different perspective on time. Instead of a day-to-day cycle, the role of the moon in the Quranic text, “based on its phases, is meant to calculate months and years” (Stowasser 2014). The Quran uses the Arabic words “manazil al-qamar” (‘stations of the moon’) apparent in verses (36:39, 10:5) (Abdel Haleem 2016) to describe the phases of the moon. 36:39: “And for the moon, we have decreed stations [manazil] until it is again like an old date stalk” (Abdel Haleem 2016). The references to the date stalk are an ode to the imagery that the Quran offers for its readers. A date stalk, over time as it ages, forms a curvature, resembling perhaps a crescent moon. The verse above emphasizes that the curved appearance of the moon (waning crescent) is the one that occurs at the end of the “manazil” of the moon. In Surah 2, verses 183-187, the Quran presents mention of the month of Ramadan, in which it is decreed that the believers are meant to fast for a specific number of days (Abdel Haleem 2016). The “manazil” of the moon is highly critical for the determination of month-by-month calculation (Stowasser 2014) and a representation of determining the beginning and end of the month (Stowasser 2014) of Ramadan, as explained in the text. Here, another example exists of the cosmological phenomena existing for human purposes and being defined as anthropocentric.

The Scientific Perspective

Scientific Cosmological Perspective

Although each culture believed in some different variation for the beginning of time, science presents us with a few main models. Firstly, and most popularly, the Big Bang theory. This theory suggests that many billions of years ago, there was a small, extremely hot, dense point that initiated the beginning of the world. The main idea was that the universe expanded

from that point and is still expanding to today (Martins 2020). Using gravity, dust, and various other frameworks, the world as we know it was created. The sun, the moon, and all of this universe were theoretically created from this phenomenon. Math and physics all play a role in calculating the definitive beginning; however, the theoretical approach is mainly why many individuals follow a religion because it gives a response to the gruelling question: “How did all of this start?” Religions answer this question and bring forth a different idea that challenges science. The Quran brings forth a blatant response to this question, all emphasizing that God is the creator of all.

Heikkurinen, Pasi, et al., in *Organising in the Anthropocene: An Ontological Outline for Ecocentric Theorising*, state, “That is to say, life on the planet may well continue without any human organization, but a human organization cannot continue without the planet” (Heikkurinen et al. 2016). The ecocentric lens on humans, as defined in the article, drives the basis that the human experience is not really the “human” experience, but rather an experience as a species, as any species of the animal kingdom has had since the beginning of the hot Big Bang model (Martins 2020). This intrinsically challenges the rhetoric that the Quran aims to push toward a human-centred reality. Through this lens, another understanding was examined: that human beings are not the center of all because they have consciousness. The mainstream argument that many religions, cultures, and theorists share is that humans are the highest in the animal kingdom based on their ability to rationalize and have a concrete consciousness. However, through recent studies, it is apparent that many other species have an incredible range of emotional and behavioural cognition. Using these perspectives, Heikkurinen, Pasi, et al. exemplify the idea that humans are not solely required for the development of the universe and that they require Earth much more than Earth requires them. A confounding argument was presented in this article:

“Hence, it is posited that certain objects (e.g., the Earth) are more dependent on other objects (e.g., the sun) than others are (e.g., a business organization)” (Heikkurinen et al. 2016). The previous statement can be used to understand the clear distinction between human creation and evolution and the basic necessities of the Earth. Through the deposition of the wider cosmological networks, we are able to have a habitat as humans (Heikkurinen et al. 2016). This supports the framework that although human beings have integrally developed the world as it is known, without other independent factors such as oceans, the sun, and land, the human species would cease to exist.

To conclude, this paper creates an outline for a much larger discussion with some definitive connections between the Quranic text and the scientific perspective. The aim of this paper was not to prove either side to be true, but rather to open a discussion on what bridges them together. Cosmology is integral to the basis of all beginnings, and each culture, religion, and literary form depends on a different variance of using cosmological events to establish symbols for the individual narrative that each external platform may try to establish. This paper aims to display the key differences between how the anthropocentric lens of the Quran and the ecocentric and cosmocentric lens of modern and classical scientific theorization. Using the binaries of the sun and the moon as a stable initial framework of an anthropocentric comparison and the scientific theorization of the hot Big Bang, this paper uses the primary source of the Quran, peer-reviewed sources of varying cosmological and non-cosmological interests, to establish the clear relation and distinction between the cosmological realities in scientific research and the Quran.

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