

Extraterrestrial Intelligent Life and Human Uniqueness: What does Science & Theology Tell us?



Introduction and Unit Objectives

1. Big Question: **Are humans unique in the universe?**
2. Connection to other seminars
3. Describe & explore the underlying motivations to pursue specific fields of inquiry
 - Describe the origins and boundaries of scientific inquiry.
 - Integrate the motivations behind scientific discovery to resources allocated.
4. Describe & explain the underlying motivation for Muslims to pursue intellectual questions.
 - Evaluate how applying Islamic epistemology informs questions
5. Explain & evaluate potential theological implications of scientific questions



We Will Cover

- Certain vs Probabilistic Knowledge
- Empirical, Rational, and Revelatory Knowledge
- Qur'an Interpretation
- Hadith Verification
- Establishment vs Significance of Knowledge Evidence
- Scope of Scientific Inquiry
- Motives for Scientific Inquiry



Definitions

- **Extraterrestrial life** is defined as life that may exist or may have existed in the universe outside of Earth.
- **Extraterrestrial intelligence** is defined as hypothetical extraterrestrial life that is capable of thinking, purposeful activity.
- **Astrobiology**, also called exobiology or xenobiology, is a multidisciplinary field dealing with the nature, existence, and search for extraterrestrial life (life beyond Earth). Astrobiology encompasses areas of biology, astronomy, and geology.



Have you ever asked the following question:

Does extraterrestrial intelligent life exist?



Introductory Video

What is our current state of knowledge regarding the existence of extraterrestrial life?

Watch the video: “**Is There Life on Other Planets? | Universe | Earth Science,**” BBC Earth Science, November 25, 2021



Group Discussion:

Does **extraterrestrial intelligent life** exist?

What changed your opinion?

What is the level of certainty?



Assumptions and Chance

- ❖ Scientific endeavors and statistical analysis is usually and fundamentally based on certain ***assumptions***.
- ❖ ***Chance*** is a standard in scientific inquiry.
 - What is the level of chance/probability that this is true or false?
 - What is the chance that something happened or didn't happen?

As Muslims:

- Theological **certainty** will change our understanding of how much “chance” plays a role in a question.



Evolution of Truth

- ❖ Scientific endeavors should lead us to better or greater understanding.
 - So what is considered “true” is always evolving in lieu of new research.
- ❖ Evolution in morals and ethics:
 - Scientific advancements are empirical-based i.e. “dunya-bound”
 - Society and cause/effect witnessed empirically in this world determine what is moral or ethical.
 - As Muslims, which parts of life or society *can* evolve are determined by its implications in the ākhirah i.e. “ākhirah-bound.”
 - Revelatory content determine what is moral or ethical.



Probable Understandings

- ❖ Coming to conclusions on ETI based on probabilistic terms.
 - As a physicist: highly probable
 - As a biologist: highly unlikely

- ❖ Types of Knowledge
 - ḡannī is probabilistic knowledge
 - qaṭ'ī is certain knowledge
 - Empirical, Rational, and Revelatory knowledge

Note: Both are still types of ***knowledge***!



Case Study: The Seven Earths Question

Empirical, Rational, and Revelatory Knowledge



Empirical

‘ādī



Rational

‘āqlī



Revelatory

shar‘ī

Is there proof of other “earths” with intelligent life?

If so, what is the nature of these proofs?

Empirical, Rational, and Revelatory Knowledge



Empirical

Possible



Rational

Possible



Revelatory

?

Revelation Exploration

A full-page background image featuring a person's silhouette standing on a rock in the foreground, looking up at a vast night sky filled with stars and the Milky Way galaxy. The text "Revelation Exploration" is centered in the middle of the image.

Searching the Qur'an

*It is Allah who created **the seven heavens and of the earth their like**, the command descending down through all of them, so that you may know that Allah has power over all things and that Allah encompasses all things in knowledge. (Q 65:12)*

Interpretations of the Qur'anic Verse

1. Likeness in **complexity**: composed of various components: earth, air, water, fire, etc...
 2. Likeness in **number**: seven earths like seven skies.
 - Layered, connected, no separation between the earths.
 - Layered, disconnected, separated by the distance of what lies between the earth and sky. Each earth contains different creatures of Allah.
- ❖ This latter interpretation is preferred due to corroboration from hadith reports, for example:
- “O Allah, Lord of the seven skies and what they shelter, Lord of the seven earths and what they carry...” (al-Bukhārī).

Searching the Hadith for ETI

- Ibn ‘Abbās (may Allah be pleased with them both) commented on the verse (Q 65:12), stating: “In each earth there is the like of Ibrāhīm”.
- In another version of the report, Ibn ‘Abbās said: “Seven earths, in each earth there is a prophet like your prophet, an Ādam like your Ādam, a Nūḥ like your Nūḥ, an Ibrāhīm like your Ibrāhīm, and an ‘Īsā like your ‘Īsā.”`

Hadith Critical Methodology

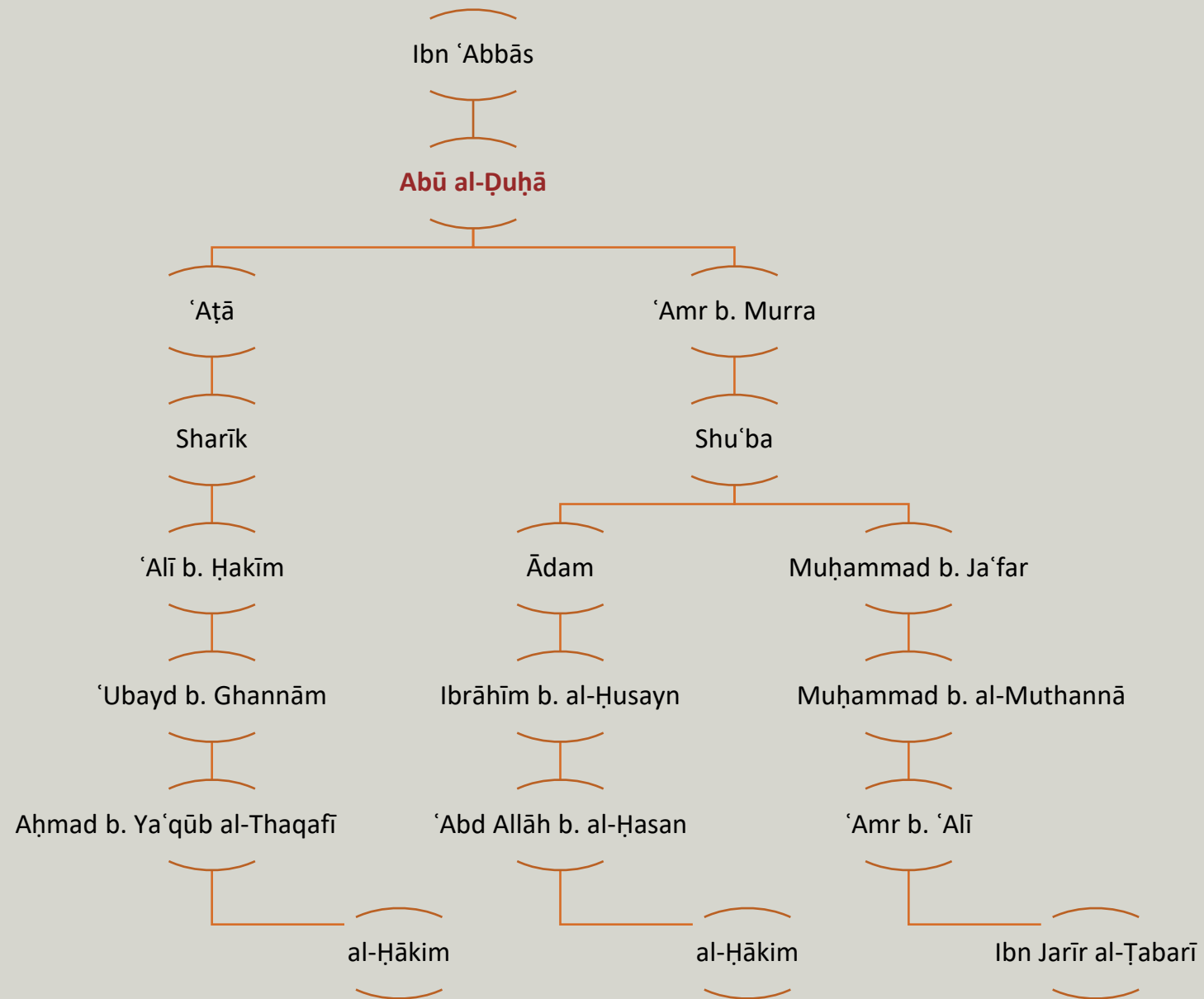


Sourcing the Report

Sources:

- Tafsīr Ibn Abī Ḥātim, Ibn Abī Ḥātim
- Tafsīr al-Ṭabarī, Ibn Jarīr al-Ṭabarī, 23:27
- Mustadrak al-Ḥākim, al-Ḥākim, ḥadīth 3869, 3869
- al-Asmā' wa-l-Ṣifāt, al-Bayhaqī, ḥadīth 831, 832.

Ḥadīth Critical Methodology: Chain Analysis



Sourcing and Proliferation

- Who said it?
 - Prophetic Reports: **marfū'** versus Halted Reports: **mawqūf**
- How certain is it that they said it?
 - Conclusively Established Reports: **mutawātir** versus
 - Probabilistic Established Reports: **khabr wāḥid**

Authenticity of the Report I

There are five things to look at or consider when examining ḥadīth.

Narrator Analysis:

1. Integrity (‘adāla)
2. Accuracy (ḍabt)

Chain Analysis:

1. Uninterrupted chain (ittṣāl)

Additional Measures:

1. Absence of isolated discrepancy (shudhūdh)
2. Absence of subtle defects (‘ilal)

Authenticity of the Report II

Conclusive (qaṭ'ī) versus Probabilistic (ẓannī)

- qaṭ'ī (Conclusive): a text that can bear only one meaning
- ẓannī (Probabilistic): a text that can bear more than one meaning
 - Even the verse of other earths is ẓannī, because there were multiple interpretations of the verse.

Establishment (thubūt) versus Meaning (dalāla)

	Establishment (thubūt)	Meaning (dalāla)
1	Conclusive	Conclusive
2	Conclusive	Probabilistic
3	Probabilistic	Conclusive
4	Probabilistic	Probabilistic

The Cohesion Question

- Is the report **cohesive** with other knowledge evidences?
- Is the report **theologically** and **metaphysically** legitimate?

Are Knowledge Evidences Cohesive? A Framework

Navigating Apparent Contradictions in Evidences			
	Revelatory Evidence	Empirical/Rational Evidence	Can they Contradict?
1	Conclusive	Conclusive	Impossible
2	Conclusive	Probabilistic	Revelation is understood literally
3	Probabilistic	Conclusive	Revelation is interpreted
4	Probabilistic	Probabilistic	Revelation is understood literally first, but interpretation is possible

Knowledge Evidences Cohesive? A Framework

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Interpreting Revelation on the Seven Earths

- Qur'an: It is Allah who created **the seven heavens and of the earth their like**, the command descending down through all of them, so that you may know that Allah has power over all things and that Allah encompasses all things in knowledge. (Q.65:12)
- Ḥadīth: **Ibn 'Abbās** (may Allah be pleased with them both) commented on the verse (Q.65:12), stating: "In each earth there is the like of Ibrāhīm." In another version of the report, **Ibn 'Abbās** said: "Seven earths, in each earth there is a prophet like your prophet, an Ādam like your Ādam, a Nūḥ like your Nūḥ, an Ibrāhīm like your Ibrāhīm, and an 'Īsā like your 'Īsā."

Understanding the Seven Earths Ḥadīth

- **Interpretations (Figurative and Literal):**

1. The other earths are the abodes of the *Jinn*.
2. Every earth has a different intelligent species.
3. The Realm of Images (‘ālam al-mithāl), an isthmus between the realms of the Unseen (ghayb) and the Seen (shahada).
4. These “prophets” are “warners,” not prophets in reality.
5. These earths and prophets are real, but the details are only known to Allah.

Be Comfortable with Uncertainty

We have to be comfortable with uncertainty; it is okay to not know for sure.

1. The level of certainty that is needed is dependent on the intent

- If the intention is to know the Creator better through creation, then conclusive (qaṭʿī) evidence is not necessarily needed.
- If a foundational question of belief is being addressed, then conclusive (qaṭʿī) evidence would be needed.
 - For example, the finality of Prophethood

2. For probabilistic topics, the importance of the question is dependent on its weight in the hereafter (ākhirah implications).

- For example, Question of organ donation—ākhirah will be affected versus
- For example, Question of whether or not different planets exist—ākhirah not affected

In Sum

What Does Revelatory Evidence Tell Us?

What Do We Know Conclusively?

- Existence of intelligent creatures:
 - Man
 - Jinn
 - Angels
- multiplicity of worlds and realms (‘ālamīn)
- vastness of the universe
- the specialness of the Prophet Muḥammad (pbuh)

What Do We Know Probabilistically?

1. Broad metaphysical possibility of the existence of extraterrestrial intelligent life.
2. It is theologically possible for extraterrestrial intelligent life to exist. Multiple earths and even multiple prophets does not necessarily challenge the finality of prophethood or specialness of the prophet Muḥammad (pbuh).

In Sum

All conclusive knowledge is **cohesive**.

Speculation is not problematic if emerging from a sound, strong epistemological framework.

Discussion

What assumptions underlie the search for extraterrestrial intelligent beings?

What are reasons and motivations for exploring?

Follow-Up Video

Human Exceptionalism: Aristotle versus Epicurus

Other Earths: The Search for Habitable Planets - 4k

SpaceRip

<https://www.youtube.com/watch?v=J8IJtgyAcIA>

Human Exceptionalism: Aristotle versus Epicurus

- The philosophy of Epicurus (341–270 BCE) was a complete and interdependent system involving:
 - Goal of human life (happiness, resulting from absence of physical pain and mental disturbance)
 - An empiricist theory of knowledge (sensations, together with the perception of pleasure and pain, are infallible criteria)
 - Description of nature based on atomistic materialism, and a naturalistic account of evolution, from the formation of the world to the emergence of human societies.

Epicurean Belief: Materialism

- Epicurus believed that based on radical materialism
 - Disprove the possibility of the soul's survival after death, and hence the prospect of punishment in the afterlife
 - Dispense with transcendent entities such as the Platonic Ideas or Forms
- He believed that eliminating fears (e.g., death, punishment) and corresponding desires would leave people free to pursue the pleasures, both physical and mental, to which they are naturally drawn, and achieve satisfaction.

Epicurean Philosophy

- Epicurus advised on the “proper” attitude toward:
 - Politics (avoid it where possible)
 - The gods (do not imagine that they concern themselves about human beings and their behavior)
 - The role of relations and marriage (dubious)
 - Various meteorological and planetary phenomena (best to keep an open mind in the absence of decisive verification)

<https://plato.stanford.edu/entries/epicurus/>

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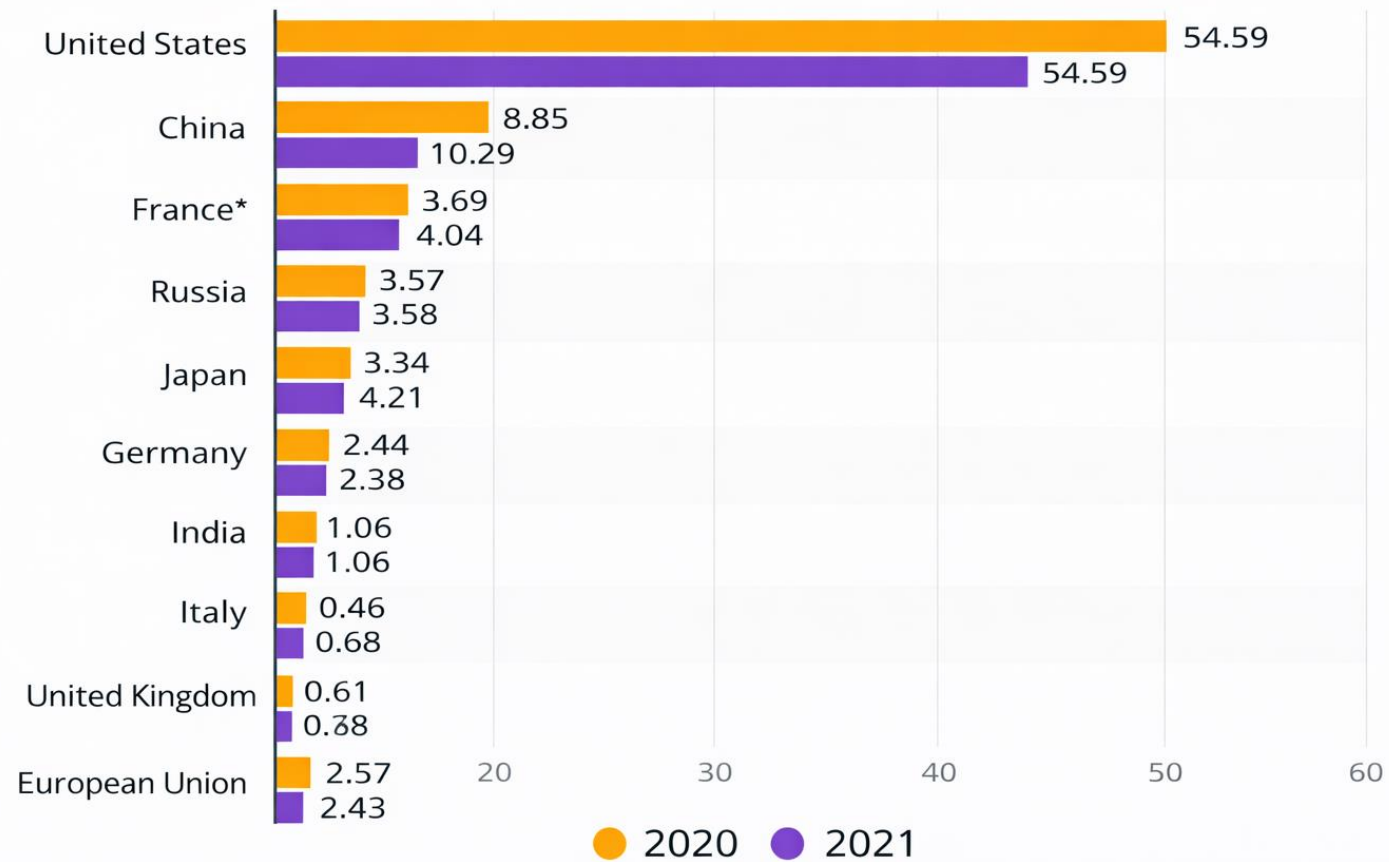
What is the Motivation behind the Inquiry?

- Pure curiosity?
- Immediate need?
- What is the cost?
- What is connection between creation and Creator?

Government Expenditure

Government expenditure on space programs in 2020

(in billion U.S. dollars)



What Else Could \$54 Billion Do?

- **End World Hunger? According to U.N. World Food Programme:**
 - 828 million people on the planet who are hungry. That's 1 in 10 people.
 - Of those, 50 million people are on the brink of famine and desperately need help.
 - \$7 billion to deliver food the millions of people facing famine this year.
 - \$40 billion per year to feed all the world's hungry people and end global hunger by 2030.
- **End Homelessness? According to US Housing and Urban Development:**
 - \$20 billion to end homelessness in the US
- **Americans spend more than \$35 billion a year on gym memberships**
- **US spend around \$718 billion on its military in 2019 alone**

Discussion

- Describe and explain the underlying motivation for Muslims (scholars and scientists) to pursue intellectual questions.
- Evaluate how applying Islamic epistemology informs the questions asked.