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Scientific Reasoning and Revelation: Exploring the Boundaries of Knowledge and Belief in a Creator

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Abstract:

This article critically examines the scope and limitations of scientific reasoning and empirical observation while exploring their profound relationship with belief in a Creator. We employed a conceptual analysis and argumentative methodology, drawing upon philosophical insights into the scientific method, historical examples of scientific paradigm shifts, and key Islamic epistemological principles derived from the Quran and classical scholarship.

Our analysis first details the systematic nature of the scientific method, including observation, hypothesis formation, experimentation, and both inductive and deductive reasoning, acknowledging its vital role in fostering human understanding and material progress. However, a central finding is the inherent conditional and contextual nature of scientific laws and theories. We illustrate this through examples like the transition from Newtonian to Einsteinian physics and the bounded applicability of Hooke's Law, demonstrating that scientific truths are not absolute but operate within specific parameters.

Further findings highlight the incomprehensibility of many scientific realities at their fundamental levels, such as subatomic particles, which remain beyond direct human perception and prediction despite their theoretical acceptance. This reveals a logical inconsistency in rejecting metaphysical or divine realities for their unobservability while simultaneously accepting similarly unobservable scientific constructs. The article also identifies that scientific reasoning is a natural human inclination, historically present across civilizations, yet this innate capacity is not inherently sufficient for grasping all truths. We conclude that human reason is significantly shaped by internal forcesthe regal (malakī) and animalistic (bahīmī) facultieswhich introduce a degree of subjectivity and limitation.

The article's overarching finding is that the scientific method, while powerful and indispensable for understanding the observable world, is fundamentally an incomplete tool for attainingcomprehensive truth. Human sensory and intellectual capacities are inherently bounded, and even technological extensions have their limits. Therefore,

absolute truth cannot be definitively accessed through scientific means alone. This leads to the conclusive finding that divine revelation (waḥy) is a necessary and complementary source of knowledge, bridging the epistemological gaps where empirical observation and human reason fall short, particularly in understanding the ultimate nature of existence and the role of a transcendent Creator. The article thus advocates for a holistic epistemology where scientific inquiry, guided by its proper boundaries, harmoniously supports and is enriched by faith.
Keywords: Epistemology, Philosophy, Scientific Knowledge Method, Reason

Introduction

In the landscape of modern intellectual thought, scientific reasoning (al-istidlāl al-ʿilmī) has emerged as a dominant methodology for acquiring and validating knowledge. At its core, scientific reasoning is grounded in the systematic study of the physical, natural, and social worlds through observable facts, measurable data, and rational inference. Science is fundamentally concerned with phenomena whose characteristics and properties can be objectively established, defined as: "Knowledge about the structure and behaviour of the natural and physical world based on facts that you can prove"[1]. This empirical basis extends beyond matter and nature (ʿilm al-ṭabīʿah) to include structured inquiry into human behavior and societal patterns, understood as: "A system for organizing knowledge about a particular subject, especially one concerned with aspects of human behaviour or society"[2]. Thus, methodical investigation allows human actions (afʿāl al-insān) and social behaviors (al-namāṭij al-ijtimāʿiyyah) to fall within the ambit of scientific inquiry.

Scientific reasoning, in this context, refers to a form of logical argumentation that adopts the scientific method (al-manhaj al-ʿilmī) as its foundational process. In contemporary epistemology, it's regarded not only as a preferred method for acquiring knowledge but also as a criterion for truth and validity. Empirically testable and verifiable claims are granted the status of truth, while untestable propositions are often dismissed.

The core of scientific reasoning lies in identifying analogies and patterns. As W. Stanley describes, "In every act of inference or scientific method, we are engaged about a certain identity, sameness, similarity, likeness, resemblance, analogy, equivalence or equality apparent between two objects"[3]. This comparative process forms the cornerstone of the scientific method, enabling the continuous discovery of laws and explanations that describe the observable universe. Scientific reasoning, therefore, represents a cycle of observation, analogy, testing, and conclusion, grounded in empirical and logical rigor.

In the modern reconstruction of knowledge, particularly within Muslim societies, understanding the role, potential, and limits of scientific reasoning is critical. While it offers a structured and powerful means to investigate reality, its application must be balanced with other sources of knowledge, especially revelation (waḥy), to ensure a comprehensive and spiritually grounded epistemology. This article aims to explore how scientific reasoning contributes to knowledge formation, its philosophical underpinnings, and its relationship with Islamic thought.

The Scientific Method: Process and Principles

The scientific method, though employing varied tools and techniques, possesses a unified methodological core, as Derek Gjertsen notes: "Science has many techniques but only one method" [4]. This structured approach to inquiry underpins much of modern knowledge production. At its foundation, the scientific method involves not merely gathering data but doing so in response to well-defined questions. As one

definition explains: "The basis of scientific methods is asking questions and then trying to come up with answers"[4]. This path of discovery begins with interrogating the natural world: What is the origin of this phenomenon? How is it structured? What are its functions, benefits, and possible applications? These questions guide the investigation, leading to organized knowledge (al-maʿrifah al-munazzamah).

A central element in this method is objectivity. The scientific process aims to eliminate the influence of personal bias and emotional subjectivity to ensure accurate (daqqah) and neutral (ḥiyādiyyah) results. As described, "The scientific method attempts to minimize the influence of bias or prejudice in the experimenter when testing a hypothesis or theory"[5]. This ensures truth emerges from the rigor of evidence-based analysis, not from a researcher's preferences. A vital component of this objectivity is rigorous testing: "The scientific method, which consists chiefly in the experimental testing of the consequences of a hypothesis"[6]. Thus, the testing of hypotheses (ikhtibār al-farḍiyyāt) in a controlled and repeatable setting remains a vital pillar of scientific reasoning.

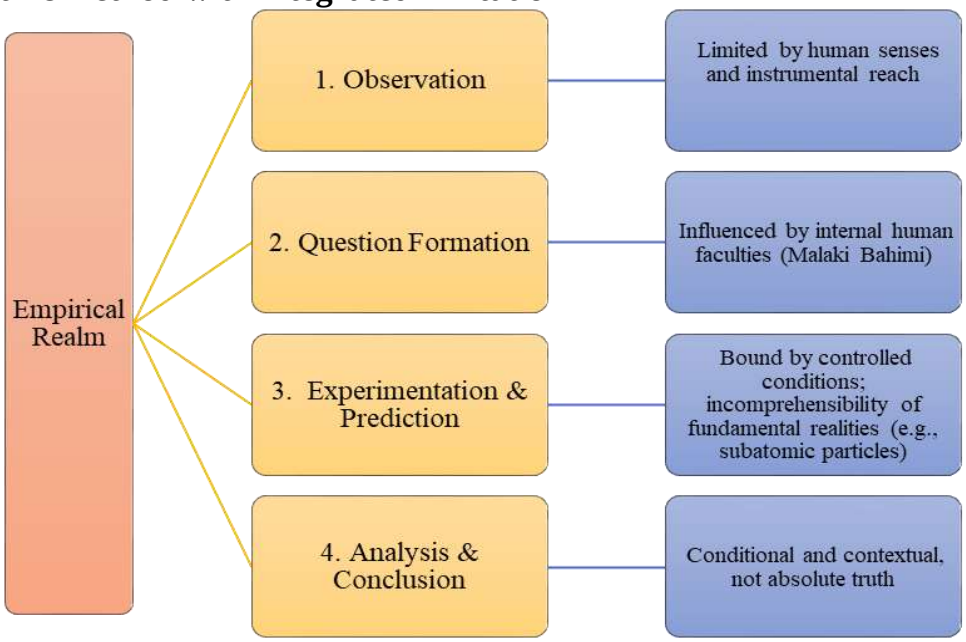
The systematic sequence of operations in scientific reasoning proceeds as follows:

1. Observation (al-mushāhadah): This is the cornerstone of scientific inquiry. It involves carefully examining visible phenomena, noting their features, attributes, and behaviors. During observation, numerous questions emerge regarding their structure, properties, and underlying patterns, leading to thoughtful reflection and the pursuit of potential answers. The initial step is to investigate visible features and their interconnected causes, with a consistent pattern or explanation provisionally accepted if no opposing observation challenges it.
2. Question Formation (ṣiyāghat al-asʾilah): Posing meaningful, investigative queries based on observations.
3. Hypothesis Construction (bunyān al-farḍiyyāt): Once initial questions have been raised, the process transitions to forming a hypothesis. This is a proposed solution or tentative answer to a problem arising during observation, a logical assumption made to explain a set of facts or phenomena. As defined, "A hypothesis is a limited statement regarding cause and effect in specific situations. It also refers to our state of knowledge before experimental work has been performed, and perhaps even before new phenomena have been predicted"[7]. A hypothesis serves as a starting point for experimental inquiry, encapsulating initial assumptions based on observed patterns and causal relationships. It is a foundational element of scientific inquiry (al-baḥth al-ʿilmī) that guides experimentation and structures the research process. Furthermore, the scientific method demands that a hypothesis be tested repeatedly and either confirmed, modified, or rejected based on its compatibility with observed data. As stated, "The scientific method requires that a hypothesis be ruled out or modified if its predictions are clearly and repeatedly incompatible with experimental tests"[8]. This ongoing testing ensures no contradiction remains between observed reality and the hypothesis's predictions. Thus, a hypothesis is not merely a guess but an informed and logical explanation (tafsīr ʿilmī) that directs the researcher toward a deeper understanding of the subject.
4. Experimentation (al-tajribat al-ʿilmiyyah) and Prediction: After forming a hypothesis, the scientific method progresses to prediction, where a specific outcome is expected based on the assumed cause-and-effect relationship. Prediction is essentially a logical extension of a hypothesis,an educated assumption about what might happen if the hypothesis holds true. In this phase,

the scientist selects one of the formulated hypotheses and presents it as a testable prediction. For instance, in medical diagnosis, if a doctor suspects a patient's headache is due to fever, the prediction would be: "If the patient is treated for fever, the headache will subside." This prediction is then subjected to testing: "Prediction must be tested through experimentation; hypothetical forecasting is essential"[9]. Experimentation (al-tajrībah) is the critical phase where predictions are empirically tested under controlled conditions. It involves careful repetition, variation of conditions, and elimination of external influences to isolate the true cause of an effect. For example, if repeated trials show that green and firm fruits are consistently sour and bitter, this observed correlation leads to a generalized conclusion. The consistency of results through repeated observation and experimentation strengthens the hypothesis, turning it into a theory, and eventually, if universally validated, into a scientific law. Scientific reasoning relies heavily on this cycle of observation, hypothesis, prediction, and experiment, deriving conclusions through logical analysis. The accuracy of results isn't based on assumptions alone but on verifiable evidence supported by repeated testing. When multiple experiments under different conditions confirm the same outcome, a strong causal relationship is established, and the conclusion is accepted with confidence.

5. Verification or Falsification (taḥqīq aw ibṭāl): Confirming or rejecting hypotheses.
6. Conclusion and Generalization (taʿmīm al-natāʾij): Formulating principles or theories.

Scientific method with integrated limitation



This progression reflects humanity's quest for knowledge that is provable, repeatable, and universally applicable (ʿilm ṣāliḥ li-l-taṭbīq al-ʿāmm). It emphasizes that modern scientific reasoning is not merely a collection of facts, but a dynamic method of inquiry that continually reshapes our understanding of the world and, by extension, our frameworks of knowledge in philosophy, theology, and civilization.

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detailed breakdown of the scientific method's steps. I'll also ensure any subtle repetitions are removed and that the flow remains natural.

The Role of Scientific Reasoning in the Modern Reconstruction of Knowledge

In the landscape of modern intellectual thought, scientific reasoning (al-istidlāl al-ʿilmī) has emerged as a dominant methodology for acquiring and validating knowledge. At its core, scientific reasoning is grounded in the systematic study of the physical, natural, and social worlds through observable facts, measurable data, and rational inference. Science is fundamentally concerned with phenomena whose characteristics and properties can be objectively established, defined as: "Knowledge about the structure and behaviour of the natural and physical world based on facts that you can prove"[10] This empirical basis extends beyond matter and nature (ʿilm al-ṭabīʿah) to include structured inquiry into human behavior and societal patterns, understood as: "A system for organizing knowledge about a particular subject, especially one concerned with aspects of human behaviour or society" [11]Thus, methodical investigation allows human actions (afʿāl al-insān) and social behaviors (al-namāṭij al-ijtimāʿiyyah) to fall within the ambit of scientific inquiry.

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In the modern reconstruction of knowledge, particularly within Muslim societies, understanding the role, potential, and limits of scientific reasoning is critical. While it offers a structured and powerful means to investigate reality, its application must be balanced with other sources of knowledge, especially revelation (waḥy), to ensure a comprehensive and spiritually grounded epistemology. This article aims to explore how scientific reasoning contributes to knowledge formation, its philosophical underpinnings, and its relationship with Islamic thought.

This progression reflects humanity’s quest for knowledge that is provable, repeatable, and universally applicable (ʿilm ṣāliḥ li-l-taṭbīq al-ʿāmm). It emphasizes that modern scientific reasoning is not merely a collection of facts, but a dynamic method of inquiry that continually reshapes our understanding of the world and, by extension, our frameworks of knowledge in philosophy, theology, and civilization.

Inductive and Deductive Reasoning

Within scientific reasoning (al-istidlāl al-ʿilmī), two primary methods of logic are employed: inductive reasoning (al-istiqrāʾ) and deductive reasoning (al-istinbāṭ).

The inductive method involves deriving general principles from specific observations. It proceeds from individual, often repeated, instances toward a universal rule. For example, if multiple fruits that are green and firm are found to be sour or bitter upon

tasting, one may generalize that "all green and firm fruits are sour." This method is foundational in empirical sciences, where repeated observation (al-mushāhadah al-mutaʿaddidah) under similar conditions leads to the formulation of general laws (qawānīn ʿāmmah). As defined: "A method of deriving general laws and principles from specific facts or examples"[13].

On the other hand, deductive reasoning works in the opposite direction. It applies known general laws to specific cases to arrive at a conclusion. Once a principle has been inductively established,e.g., "Green and firm fruits are sour",then, upon encountering another fruit with the same qualities, one deduces that it too must be sour, even without tasting it. This logical process involves applying the general to the particular, ensuring consistency between the theoretical rule and practical judgment. As defined: "The process of using the information you already have to understand a particular situation or to find the answer to a problem"[14].

Thus, while inductive reasoning helps discover new laws through repeated experiences, deductive reasoning applies these laws predictively. Together, these two modes form the backbone of scientific reasoning, facilitating the movement from observation and hypothesis toward tested theory and established law.

Scientific methodology ultimately begins with sensory observation,a careful study of phenomena using sight, touch, and instruments. After formulating a hypothesis, experimentation involves testing various aspects (quantitative, structural, and behavioral). A conclusion is only accepted if the same result consistently appears and no contradicting instance is found. This repetition and consistency (istiqrār) lead to the derivation of scientific laws (qawānīn ʿilmiyyah) through inductive generalization.

Application and Limitations of Scientific Reasoning

Scientific reasoning (al-istidlāl al-ʿilmī) today goes beyond the realm of natural sciences like physics, chemistry, and biology, extending into the study of human behavior (al-sulūk al-basharī), social patterns (al-namādhij al-ijtimāʿiyyah), and economic and political conduct. In these fields, researchers gather data, formulate hypotheses, and apply observation and analysis (taḥlīl) to draw conclusions (natāʾij). The inclusion of modern tools,statistical methods (ṭuruq iḥṣāʾiyyah), mathematical modeling (namādhij riāḍiyyah), and technological instruments (ālāt ʿilmiyyah),has enhanced the precision and organization of scientific experimentation (al-tajrībah).

This method has also become a practical framework for everyday problem-solving, where one observes a situation, collects relevant information, proposes possible solutions, and through rational analysis (tafkīr ʿaqlī) selects the most suitable outcome. Thus, scientific reasoning is now widely adopted across disciplines and aspects of modern life.

In this context, employing scientific methodology for the presentation of Islamic beliefs and values (ʿarḍ al-ʿaqāʾid wa-l-qiyam al-islāmiyyah) has become increasingly important. If people are convinced by observed realities, then Islamic teachings can also be demonstrated through empirical observation and practical examples. By studying the observable impact of Islamic values on individuals and societies through repeated observation and evaluation, one may highlight the practical truth (ḥaqīqah ʿamaliyyah) of Islamic principles. For example, the ethical and psychological outcomes of following Islamic injunctions in daily life can serve as living proofs of their effectiveness, bypassing abstract debate (jadal naẓarī) and moving toward demonstrable evidence. This approach is not only intellectually appealing but also pragmatically beneficial, especially in a time when empirical observation is favored over speculative argument, thus reviving a faith-based understanding through a scientifically grounded method (manhaj ʿilmī murtakis ʿalā al-īmān).

However, it is also important to acknowledge the limitations (ḥudūd) of scientific reasoning. Since human facultiesour senses, intellect, and perceptionare themselves limited, any method based on these faculties, including the scientific one, must also be finite in scope. This realization underscores the need for a balanced integration of reason (ʿaql) and revelation (waḥy) in the broader project of intellectual reconstruction.

The Limits of Scientific Reasoning and the Internal Forces That Shape Human Thought

Scientific reasoning (al-istidlāl al-ʿilmī) has undoubtedly played a vital role in advancing human comfort and luxury by transforming rational faculties (quwā al-ʿaql) into tools of invention and problem-solving. As discussed, the scientific method has helped discover laws and theories that guide modern life. However, a critical question remains: To what extent can this reasoning uncover the truth? And how impartial or objective (ghayr mutaḥayyiz) is the human intellect that operates this method?

While the scientific method aims for objectivity, it is ultimately bound by the limited capacities of the human being. Human reasoning is not entirely neutral or pure; it is influenced by internal and external factors. If a person is devoid of sincere reflection and ethical grounding, their reasoning becomes flawed, and the creative potential of the intellect is diminished. Therefore, understanding the limits of scientific reasoning begins with understanding the structure of the human self. According to Shah Waliullah al-Dihlawi (d. 1176 AH), Allah has instilled two principal forces in the human being with immense wisdom:

"Then know that Allah has endowed man with two powers through His wondrous wisdom:

(1) A regal (malakī) power that spreads from the divine soul peculiar to man, flowing over the natural soul and commanding it,

(2) An animalistic (ḥayawānī) power which emerges from the animalistic soul shared with all living beings, possessing freedom and tendencies of its own." [15]

This dichotomy reflects the dual nature of the human condition. The *malakī quwwah* (regal or angelic faculty) represents the higher spiritual inclinations,morality, rationality, and submission to divine guidance. In contrast, the *ḥayawānī quwwah* (animalistic faculty) stirs desires, instincts, and emotional impulses. The natural soul (al-rūḥ al-ṭabīʿiyyah) serves as the arena where these two forces interact and conflict.

Therefore, when evaluating the limitations of the scientific method, one must acknowledge that the intellect itself is not a standalone or infallible guide. It is shaped by internal inclinations,ethical, spiritual, and carnaland influenced by surrounding environments. This means that even scientific investigation can be vulnerable to bias, partiality, or moral misdirection, especially when it operates in isolation from spiritual and ethical principles.

In this light, scientific reasoning, though immensely beneficial, remains a limited tool, effective only within the boundaries of observable phenomena and calculable outcomes. When it attempts to address metaphysical truths, moral absolutes, or ultimate purpose, it reaches the edge of its domainwhere revelation (waḥy) and spiritual insight must take over.

The Internal Forces Governing Human Reasoning: Between Malakī and Bahīmī Dominance

Human reasoning (*quwwat al-fikr*) is deeply affected by two opposing internal forces embedded within the human being: the regal (malakī Derived from malak (angel), this term refers to the angelic or spiritual inclination within humans the force that inclines toward intellect, virtue, worship, and divine obedience) powerand theanimalistic

(bahīmī Derived from bahīmah (beast), this refers to the animalistic or carnal inclination the force that drives desires, impulsive pleasures, and material indulgence. [16]) power. When the malakī faculty prevails, noble qualities arise such as empathy, altruism, inner tranquility, and joy in serving others. Worship becomes spiritually fulfilling, obedience to the Creator brings contentment, and disobedience causes inner unrest. The human soul gains the ability to endure hardship with patience, (viewing calamities through a lens of divine wisdom. The individual remains balanced and content, experiencing peace in life despite trials.

In contrast, when the bahīmī faculty dominates, the opposite traits emerge: loss of compassion, delight in others' harm, oppression, arrogance, and indulgence in immoral behavior (*fawāḥish*). Disobedience to God is not only tolerated but often celebrated. The soul is agitated by adversity, unable to practice patience, and the person descends into inner chaos. Physical urges hunger, thirst, lust intensify and control behavior. Thus, the dominance of either force determines the direction of human conduct and, ultimately, the type of reasoning adopted**.**

Consequently, the scientific or rational method one uses is also influenced by which force is predominant. If *quwwat al-malakīyah* governs, the reasoning tends to be morally upright and spiritually inclined. If *quwwat al-bahīmīyah* rules, reasoning may become corrupted or self-serving. Both forces arelimited**,** and so too is the reasoning that emerges from them.

The Qur'an itself affirms the limitations of human faculties hearing, sight, and intellect when divorced from divine guidance. Allah says:

وَلَقَدْ مَكَّنَّاهُمْ فِيمَا إِن مَّكَّنَّاكُمْ فِيهِ وَجَعَلْنَا لَهُمْ سَمْعًا وَأَبْصَارًا وَأَفْئِدَةً فَمَا أَغْنَىٰ عَنْهُمْ سَمْعُهُمْ وَلَا أَبْصَارُهُمْ وَلَا أَفْئِدَتُهُم مِّن شَيْءٍ إِذْ كَانُوا يَجْحَدُونَ بِآيَاتِ اللَّهِ وَحَاقَ بِهِم مَّا كَانُوا بِهِ يَسْتَهْزِئُونَ

"And We had certainly established them in what We have not established you, and We made for them hearing, vision, and hearts; but their hearing and vision and hearts availed them not from anything because they were rejecting the signs of Allah; and they were enveloped by what they used to ridicule."*17*

This verse clearly states thatsenses and intellect, when separated from divine faith and recognition, become futile**.** Thus, reason (ʿ*aql*) although essential is insufficient on its own to attain ultimate truth. It requires anchoring in revelation (*waḥy*) and submission to divine purpose.

The Epistemological Limits of Human Reason and the Role of Revelation

To determine the true limits of human reason (ʿaql), we must recognize a fundamental principle: while the intellect allows for observation, inference, and limited understanding of benefit (maṣlaḥah), it is not capable of comprehending all truths or the wisdom behind every divine command. As noted by the scholars, including a profound insight attributed to Islamic tradition:

"If a ruling is authenticated through sound narration, it is not permissible to reject it merely due to the lack of understanding of its wisdom. This is because most people are not equipped to grasp every benefit. Since the Prophet ﷺ and his family are far superior in intellect than our own, the divine knowledge they carry is intentionally withheld from those who are unworthy of it." [18]

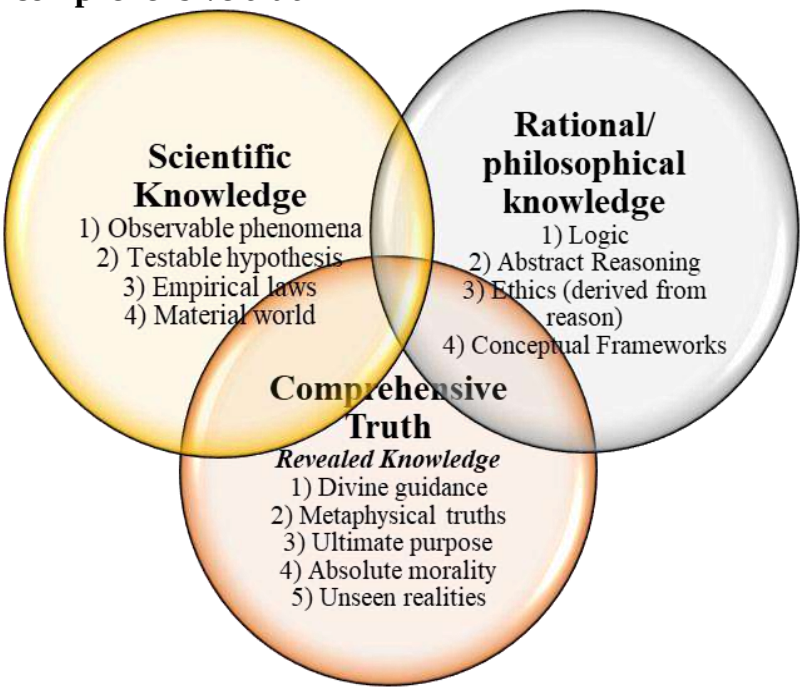
Hence, failing to grasp the full rationale (ḥikmah) behind a ruling does not warrant its rejection. Many divine commandments are beyond the immediate comprehension of average intellects. The inability to understand should not be seen as a flaw of the command itself, but as a limitation of human perception. As the Qur'an affirms again, reinforcing this point:

"And We had certainly established them in what We have not established you, and We made for them hearing, vision, and hearts; but their hearing and vision and hearts availed them nothing because they used to reject the signs of Allah..." [19]

This verse powerfully illustrates that ears, eyes, and intellect are powerless when detached from belief and submission. Just as our physical senses have measurable limits, our mental faculties too are restricted. For example, the human eye cannot see microscopic particles unless aided by a microscope. But even microscopes have limits. The same applies to hearing,limited to certain frequencies and enhanced temporarily through devices like telephones and wireless receivers, which also have their thresholds. These empirical tools only extend, but do not eliminate, the boundaries of perception.

Similarly, when the mind is no longer able to grasp reality, a higher source must intervene. To deny that there could be a superior means of knowledge beyond human intellect is to reject our very daily lived experience, where we constantly rely on external tools once natural limits are reached.

Spheres of comprehensive truth



In the Islamic framework, revelation (waḥy) is that transcendent source. The Prophets (anbiyāʾ ʿalayhim al-salām) are endowed with the highest capacity to perceive and communicate ultimate truth. Their insight surpasses all others, and their guidance completes what intellect alone cannot achieve.

In conclusion, while human reasoning and analysis help us navigate daily challenges by observing phenomena and deriving practical solutions, ultimate truth remains tied to revelation. Faith in the unseen (īmān bi al-ghayb) is not a rejection of reason, but rather its perfection and completion.

Limits of Scientific Reasoning and the Inaccessibility of Absolute Truth

In both mathematics and science, there exist principles that are accepted without complete logical understanding. Just as many axioms in mathematics are acknowledged without absolute proof, scientific reasoning (al-istidlāl al-ʿilmī) too often operates on assumptions whose foundational truths remain obscure. This practice illustrates that even scientific deduction is not entirely self-sufficient in explaining the totality of reality.

As W. Dampier writes:
"Science can only reveal certain aspects of reality. It merely draws up conceptual frameworks or models of nature according to its own definitions." [20]
"We constantly come face to face with the dreadful mystery that is reality." [21]
Science, by its very nature, can present only a partial, model-based image of reality, not its full essence. Despite immense advancements, science remains incapable of offering complete explanations for many fundamental phenomena. For example, genetics has brought forth the concepts of genes and chromosomes, yet their true interrelationship remains elusive.
As Norman Rothwell observes:
"It is still unknown how the four types of building units come together to form DNA."[22]
This quote reflects a core limitation in scientific explanation: when one phenomenon can only be explained in terms of another equally obscure concept, the circle of explanation becomes inherently weak.
This point is further illustrated by Herbert Feigl, who states:
"It is impossible to establish the laws of mechanics without the aid of integral calculus." [23]
Scientific reasoning often relies on mathematical abstractions to explain natural phenomena. For example, even the simple equation $S = ½gt^2$ (used to describe displacement under gravity[24]) is not purely derived from observation, but depends on theoretical constructs developed through calculus and inferred models.
Thus, while science has proven useful in predictive modeling and technical advancement, it falls short when faced with the metaphysical or ultimate nature of reality. As such, it becomes evident that human intellect (ʿaql) and empirical methods (tajriba),no matter how refined,have intrinsic limitations. The recognition of these limitations leads to the acceptance of a higher source of knowledge, namely divine revelation (waḥy), through which realities beyond the grasp of empirical observation are disclosed.

Scientific Reasoning, Empirical Observation, and Belief in the Creator

In science, acceleration and velocity are not observed directly but derived from integration and differentiation of time-related quantities. For instance, the equation $S = ½gt^2$ is not directly experienced but derived through calculus [25]. Thus, scientific understanding often depends on inferred principles, not direct observation.
Similarly, we observe only the physical and chemical properties of objects,such as the way two substances combine to form a new compound,not their inner essence. These properties are analyzed repeatedly through observation and experimentation. When results remain consistent, a law or principle is established.
This empirical and logical method of science,based on observation, repetition, and deduction,is also encouraged in Islam. The Qur'an invites people to contemplate the universe, to reflect deeply on natural phenomena, and to analyze them with intellect (ʿaql):
"Indeed, in the creation of the heavens and the earth, and the alternation of night and day, are signs for those of understanding." [26]
When a consistent result is repeatedly observed in creation, such as the beneficial qualities of fire or water, and no contrary observation appears, then according to scientific methodology one is justified in accepting its truth. Similarly, when no counter-proof arises against Allah's claim as the sole Creator and Sustainer, then denying His existence on the basis of lack of visual observation is unscientific. Just as atomic theory claims the existence of protons and electrons despite their being invisible

based on observable chemical behavior, belief in a transcendent Creator is rationally valid when supported by observable design, order, and purpose in the universe [27]

Furthermore, if one argues that the universe came into existence on its own, such a claim would require conclusive logical and empirical proof that the universe is self-sufficient and independent. However, all known phenomena reveal dependency on forces, causes, and structures,thus denying their capacity to be self-originating.

People throughout history, observing consistent natural properties, mistakenly assigned divinity to them. But the Qur'an, through the miracles of the Prophets, demonstrates that these properties are not self-existing, but granted by a Higher Will. For example, fire usually burns, but in the case of Prophet Ibrāhīm (Abraham, peace be upon him), it did not:

"We said, O fire, be coolness and safety for Abraham!" [28]

This miracle proves that even natural laws can be suspended by the One who created them. Therefore, divine intervention supersedes natural causality.

Limits of Scientific Reasoning and the Role of Revelation in Knowledge

When all the natural forces,believed to be independent,are observed to be limited and vulnerable, the majesty and control of the Creator become evident. The claim that these forces function on their own is challenged when consistent exceptions are shown through miracles and divine interventions, which illustrate that such forces operate under a higher command.

If, despite such clear observations and intellectual reasoning, one still denies the existence of a singular Creator (al-Wāḥid al-Qahhār), and rejects the message of Islam, then such denial reflects not a lack of evidence but a rejection of experience, observation, and reason itself.

In truth, the scientific method based on observation (mushāhadah), reflection (tafakkur), and reasoning (taʿaqqul) can indeed support and even verify many of the core Islamic principles. This is because the intellectual capacities instilled in humans are built upon these very faculties, which science organizes under what is called the "scientific method."

Boundaries of the Scientific Method

Scientific methodology is founded on human senses, reason, and experience. However, as previously explained, the five senses are inherently limited. The eye sees only within a range, the ear hears only a spectrum of frequencies, and similarly, touch, taste, and smell function within fixed bounds.

When these senses fail, instruments are used to extend their function,microscopes, telescopes, sensors, etc. Yet these tools, too, reach only a defined limit. Therefore, the methodology based on these faculties, i.e., the scientific method, is also limited by extension and can never access absolute reality.

To claim that "only observable phenomena are acceptable" or that "truth must be confined to sensory experience" is itself an unscientific stance. It assumes that human capacity for observation is perfect and complete,which it is not.

As Karl Popper famously said:

"There is a reality that scientific theories try to discover, but it can never be known definitively." [29]

Thus, science can only offer tentative models or approximations of reality. If absolute truth cannot be conclusively determined through scientific means, then science cannot be the ultimate standard for measuring truth.

Scientific Laws Are Conditional

Many laws in science work only under specific conditions. For instance[30], Newton's laws are valid only when dealing with objects moving at speeds below the speed of light. Once that threshold is crossed, these laws fail and must be replaced by Einstein's theory of relativity[31].

Similarly, Hooke's Law applies only within certain limits of elasticity. When the stress exceeds a material's proportional limit, the law collapses[32].

Such examples underscore that scientific truths are conditional and contextual, not universal.

The Human Inclination Toward Scientific Reasoning

Human beings naturally lean toward methods of reasoning that provide ease and practical results. Through observation and experimentation, they fulfill not only their needs but also their luxuries and comforts. The very structure of human cognition,its sensory faculties, intellectual potential, and rational capabilities,predisposes humans to seek truths through empirical and logical processes.

Therefore, it can be argued that scientific reasoning is inherently embedded in human nature. However, the mistake lies in assuming that this method alone is sufficient to uncover all realities of the universe. Claiming that this approach has only emerged in the last two centuries is historically inaccurate. In fact, ever since human beings gained awareness, they have relied on the same tools of thought,observation, reasoning, and reflection,to navigate the world.

Humans possess both the power to observe and the ability to reflect, and these faculties have been utilized since the earliest periods of history. The reason why ancient humans did not progress as rapidly in technology and material development as we observe today lies not in their lack of reason, but in the limitations of historical data and archaeological evidence.

If we examine ancient civilizations,such as those discovered along river valleys,we find well-structured cities, advanced planning, and sophisticated lifestyles. This indicates that scientific reasoning was present, but technological expression varied with time and available tools.

Human Limitations and Scientific Change

Not all humans possess the same level of intellectual and observational capacity. Some excel in certain areas, while others are naturally limited. This difference in human faculties results in diverse and often conflicting theories and understandings. Consequently, scientific theories and laws continue to evolve.

One might argue that past theories were not based on proper observations, but modern theories are. However, this claim is fundamentally flawed. The theories of earlier scholars were also based on the best available observations and experiments of their time. The variation arises from the difference in tools and methods available.

Take the example of Newton's Law of Universal Gravitation, which dominated the scientific worldview from the 17th to the 19th century. However, in the 20th century, Einstein's Theory of Relativity challenged and redefined the understanding of gravity. What was once considered an unshakable law was revised in light of newer observations and more refined tools.

Limitations of Scientific Theories and Atomic Models

The examples discussed so far clearly demonstrate that just as human beings are limited in their intellectual capacities, the methods they devise to explore and investigate reality are also limited. Consequently, the scope of knowledge derived through such inquiry remains restricted.

A prime example of this is Bohr's atomic model in the field of chemistry. This model conceptualizes the atom as a miniature solar system, with electrons orbiting a central nucleus. However, the actual existence of this structure in reality remains questionable.
As Thomas Kuhn notes:
"Bohr's atomic model was essentially an analogical deduction inspired by the solar system. Though it could be demonstrated mathematically through deductive reasoning, its actual reality remains incomprehensible." [33]
This is much like mathematical axioms: certain foundational principles are assumed without proof and used to explain complex phenomena. In the same way, Bohr's atomic structure and the movement of electrons were conceptualized to help explain chemical interactions. Yet the atom, the molecule, and their inner constituents remain invisible and empirically inaccessible.
These atomic theories emerged to provide explanations for chemical reactions and the creation of new compounds. But since the actual structures and behaviors of these subatomic elements are unobservable, scientists relied on logical reasoning and mathematical modeling to explain these interactions.

Incomprehensibility of Scientific Realities

It is important to reflect on the fact that many scientific concepts and models remain inherently beyond human perception, despite being constructed through the scientific method. Rejecting other metaphysical or divine realities simply because they are not directly observable,while accepting such scientific assumptions,reveals a contradiction in reasoning.
Albert Einstein explained this dilemma clearly:
"Even with the most powerful microscopes, we cannot see the individual molecules in water or observe their movements. Despite this, science maintains that water consists of molecules." [34]
He further remarked:
"Even if we possessed complete knowledge of the fundamental particles,electrons, protons, neutrons,we would still not be able to predict what a single particle would do in a second, a minute, or a year." [35]
This reveals that these entities are not only beyond direct observation, but also unpredictable and incomprehensible in behavior.

Scientific Method: A Valuable but Incomplete Tool

In light of this, the status of scientific reasoning becomes clearer. Humans form hypotheses based on their limited observations, use logic and experimentation to test them, and draw conclusions. These conclusions form the basis of laws and theories.
However, this method does not unlock all the mysteries of nature. Many phenomena remain outside the reach of experimental validation and logical analysis. Thus, it becomes evident that scientific reasoning, while powerful, is not all-encompassing.

Conclusion

This article has argued that while scientific reasoning is invaluable for understanding the observable world, it is inherently limited. Scientific laws are conditional, not absolute, and many fundamental realities remain beyond human perception. Human reason itself is bounded by inherent cognitive and internal influences. Therefore, science alone cannot provide comprehensive truth. We conclude that divine revelation is a necessary complement to scientific inquiry, bridging its epistemological gaps and

enabling a more complete understanding of existence and the Creator. Embracing both reason and revelation offers a holistic path to truth.

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