

Chapter 17: Qur'anic vs. Modern Scientific Method

The encounter between Qur'anic epistemology and modern scientific methodology is not a confrontation between faith and reason but a dialogue between two modes of knowing, one rooted in divine revelation, the other in empirical observation. The Qur'an presents knowledge (*'ilm*) as an integrated act of consciousness that unites intellect (*'aql*), intuition (*wijdan*), and revelation (*wahy*), whereas modern science, emerging from post-Enlightenment rationalism, confines knowledge largely to measurable, quantifiable, and falsifiable phenomena (Nasr, 2007).

Yet, the Qur'an does not reject empirical observation; it commands it: “*Do they not look into the dominion of the heavens and the earth?*” (Q. 7:185). What it rejects is epistemic reductionism—the assumption that only the visible is real or that truth can be derived solely from human perception. In the Qur'anic worldview, the universe (*al-'alam*) is a set of signs (*ayat*) pointing to an unseen order (*al-ghayb*) that is ontologically prior and epistemically foundational (Q. 2:3, 41:53).

Thus, while the modern scientific method begins with doubt and seeks certainty through verification, the Qur'anic method begins with divine certainty (*yaqin*) and seeks deeper understanding through reflection (*tafakkur*). The difference is not anti-scientific—it is ontological and teleological. This chapter reconstructs that difference to demonstrate that Qur'anic epistemology provides a more holistic, ethically grounded, and purpose-oriented vision of scientific inquiry.

17.1 The Ontological Foundations of Knowledge

17.1.1 Reframing Ontology in Qur'anic Epistemology

The ontological question of knowledge: *what is the nature of knowing and what is its being?* - stands at the heart of all epistemological inquiry. In the Qur'an, knowledge (*'ilm*) is not treated as a mere cognitive possession or abstract category; rather, it is an existential reality that binds the human being (*insan*) to divine truth (*al-haqq*). The Qur'an consistently portrays knowledge as a form of ontological illumination, where knowing is an act of being - the realization of the human soul's alignment with divine order (Q. 24:35). This is distinct from the dominant modern scientific ontology, which situates knowledge within a material and empirical framework, perceiving reality as measurable, testable, and detached from metaphysical significance (Nasr, 1989).

In the Qur'anic worldview, ontology and epistemology are inseparable: to know is to exist correctly, and to exist correctly is to perceive truth in its divine correspondence. The Qur'an situates *'ilm* within an ontological hierarchy - from sensory apprehension (*sam', basar*), to intellectual reflection (*'aql*), to spiritual realisation (*qalb*). This multi-layered ontology of knowing contrasts with the reductionist structure of modern empiricism, where the knower is defined primarily as a rational observer of the material world rather than a moral and spiritual participant in divine creation (Chittick, 2007).

Hence, the ontological foundation of Qur'anic knowledge rests on three pillars: divine reality as the ultimate source of truth, the human being as the conscious receiver and interpreter, and the cosmos as the

revelatory field of signs (*ayat*). Together, these pillars establish an integrated epistemic structure that unites being, knowing, and meaning - a structure that modern science often fragments by separating the metaphysical from the empirical.

17.1.2 Divine Reality as the Ontological Source of Knowledge

In the Qur'an, all knowledge originates from God (*Allah*) as the Absolute Knower (*Alim*). The ontological foundation of *'ilm* thus rests upon divine omniscience: "*He taught man what he did not know*" (Q. 96:5).

This verse establishes a direct metaphysical relation between divine revelation (*talim*) and human cognition. The act of knowing, according to the Qur'an, is not autonomous; it is an unfolding of divine generosity and creative energy within human consciousness. The ontological structure of reality itself is sustained by divine knowledge: "*With Him are the keys of the unseen; none knows them except Him*" (Q. 6:59).

This divine exclusivity of absolute knowledge implies that all human inquiry is participatory - derivative rather than original. The Qur'an emphasises that the cosmos is constructed as an intelligible system of signs that reflect divine intentionality: "*We will show them Our signs in the horizons and within themselves until it becomes clear to them that it is the Truth*" (Q. 41:53).

Thus, knowledge is not merely *about* reality but *of* reality as a revelation of divine truth. The human act of knowing becomes a process of uncovering divine meaning through engagement with the *ayat*, both cosmic and scriptural.

In contrast, modern scientific ontology reduces reality to physical processes devoid of inherent purpose. It operates on the principle of material causation rather than divine intentionality. The Qur'an, however, unites cause and meaning: every phenomenon is both a physical event and a metaphysical disclosure. Therefore, ontology in the Qur'anic sense is simultaneously cosmological, epistemological, and theological. To know reality correctly is to perceive it as divinely sustained and purposefully ordered.

17.1.3 The Human Being as Ontological Knower

The Qur'an describes the human being as the most honoured creation because of his cognitive and moral faculties: "*And He taught Adam the names of all things*" (Q. 2:31).

This verse encapsulates the ontological dignity of human knowledge. The act of naming - representing and categorising - symbolises the human capacity to understand and interpret the divine order. In Qur'anic ontology, this capacity is both a gift and a responsibility; knowledge is an amanah (trust), and misusing it leads to ontological corruption (Q. 33:72).

Unlike the Cartesian dualism that separates mind and matter, the Qur'an presents a holistic anthropology: the *nafs* (self), *'aql* (reason), *qalb* (heart), *sam'* (hearing), and *basar* (sight) form an integrated system of knowing. These faculties operate not in isolation but in harmony, grounded in moral accountability (Q.

17:36). Knowledge, therefore, is not an act of disembodied intellect but an existential engagement with divine order through the totality of the self.

The human knower in the Qur'an is simultaneously rational, ethical, and spiritual. Rational inquiry (*ta'qqul*) must lead to remembrance (*dhikr*), and remembrance must yield moral transformation (*'amal salih*). The purpose of knowledge is not domination or exploitation of nature but recognition of divine signs and fulfilment of the covenant of stewardship (*khilafah*). Ontologically, then, the knower is not external to reality but embedded within it as an interpreter of divine meaning.

This stands in sharp contrast to the modern scientific model, in which the knower is detached from the known. Objectivity, in the modern sense, implies emotional and moral disengagement. The Qur'an, however, envisions *objectivity* as alignment with divine truth rather than detachment from it. The true knower is not neutral but truthful - oriented toward *al-haqq* (the Real). Hence, Qur'anic ontology replaces the subject-object dualism of modern science with a theocentric unity of knowing.

17.1.4 The Cosmos as Ontological Revelation

The Qur'an portrays the universe as a living, communicative reality - a field of divine disclosure. The repeated use of the term *ayat* (signs) for both natural and scriptural phenomena (Q. 3:190-191; 51:20-21) dissolves the modern boundary between revelation and nature. Every natural order - the alternation of night and day, the growth of plants, the motion of stars - serves as a locus of epistemic encounter. "*Indeed, in the creation of the heavens and the earth and the alternation of night and day are signs for those who possess understanding*" (Q. 3:190).

This verse establishes a cosmological epistemology grounded in contemplation (*tafakkur*) rather than experimentation alone. The Qur'an invites human beings to read the cosmos as a divine text - to interpret its structure and motion as metaphysical language. Hence, the world is not a silent mechanism but a meaningful discourse.

In this sense, the ontology of the cosmos in the Qur'an is *semiotic* rather than purely mechanical. The physical order is simultaneously symbolic, pointing beyond itself to the Creator. The act of discovery is therefore not a confrontation with matter but a dialogue with meaning. Every act of scientific observation, when properly oriented, becomes an act of worship, because it deciphers divine signs.

Modern science, however, approaches the cosmos as an object of manipulation. The ontological distinction lies here: for the Qur'an, knowledge of nature reveals divine wisdom; for modern science, knowledge of nature confers technological power. This divergence transforms epistemology into ethics - because for the Qur'an, knowing carries the responsibility of gratitude and humility (Q. 14:7), whereas modern science often celebrates autonomy and control.

Thus, the cosmos in Qur'anic ontology is a revelation-in-motion, continuously unfolding divine meaning to the reflective mind and receptive heart.

17.1.5 The Unity of Ontology and Epistemology

The Qur'an never treats being (*wujud*) and knowledge (*'ilm*) as distinct categories. Rather, they are two aspects of a single divine order. God's self-description as *al-Haqq* (the Real) and *al-Alim* (the All-Knowing) indicates that truth and knowledge share the same ontological root (Q. 22:6). Human beings participate in this unity by perceiving truth through the faculties bestowed upon them.

This integration dissolves the epistemic fragmentation that defines modern intellectual life - the split between metaphysics and physics, between knowing and being. In the Qur'an, epistemology is ontological because truth is existential; it transforms the knower. To know the truth is to become aligned with it - an ontological metamorphosis rather than a mere cognitive acquisition.

Hence, the Qur'an's ontology of knowledge is dynamic and participatory: *"Those who strive in Our cause, We will surely guide them to Our ways"* (Q. 29:69).

Guidance (*huda*) in this verse represents epistemic transformation grounded in moral striving. Knowledge becomes a mode of being, a way of existing truthfully within divine order. This transforms the human being into a locus of divine manifestation - a microcosm reflecting the macrocosmic truth.

By contrast, the modern scientific ontology separates knowing from transformation; it defines knowledge as cumulative data, not as existential realisation. The Qur'an, however, insists that true knowledge (*'ilm al-haqq*) must lead to awareness (*taqwa*) and gratitude (*shukr*). Thus, the ontological foundation of knowledge in the Qur'an is simultaneously metaphysical, ethical, and spiritual.

17.1.6 Ontological Error: Misalignment and the Loss of Truth

The Qur'an also identifies the ontological failure of knowledge when cognition is divorced from divine guidance. Such misalignment is described as blindness (*'ama*), deafness (*ṣumm*), and heedlessness (*ghaflah*). *"They have hearts with which they do not understand, eyes with which they do not see, and ears with which they do not hear"* (Q. 7:179).

This verse reveals that ignorance in the Qur'an is not the absence of information but the distortion of ontological orientation. When knowledge is detached from the remembrance of God (*dhikr Allah*), it degenerates into illusion. The modern world's epistemic crisis - knowledge without meaning, power without ethics - exemplifies this ontological loss.

Thus, the Qur'an's ontology of knowledge is not neutral; it is moral. The correctness of knowing depends on the purity of being. When the *qalb* (heart) is corrupted by arrogance or material obsession, knowledge becomes self-destructive (Q. 45:23). The Qur'anic antidote to ontological error is humility before truth - the recognition that all knowledge belongs to God and must be used in service of the divine order.

17.1.7 Reclaiming Ontological Wholeness

The ontological foundations of knowledge in the Qur'an establish an integral relationship between the divine, the human, and the cosmic. Reality is not an inert mechanism but a living revelation; knowledge

is not a tool of control but a mode of participation in divine wisdom. The Qur'an restores the unity of knowing and being by grounding epistemology in ontology - by teaching that to know truthfully is to exist truthfully.

In contrast, the modern scientific worldview, while powerful in its empirical achievements, remains ontologically fragmented. It isolates the act of knowing from its metaphysical ground and moral purpose. The Qur'an challenges this fragmentation by calling for a holistic epistemology rooted in divine unity (*tawhid*). Therefore, the ontological foundation of Qur'anic knowledge may be summarised as follows:

- Divine Source: All knowledge emanates from God as the ultimate reality and truth.
- Human Participation: The human being is an interpreter and trustee of this knowledge through integrated faculties.
- Cosmic Revelation: The universe itself is a meaningful field of divine signs.
- Ethical Purpose: Knowledge entails responsibility and transformation.

This ontological unity, when reawakened, offers a paradigm through which modern scientific inquiry can recover its lost metaphysical centre and ethical direction.

17.2 Epistemic Structures of Inquiry in the Qur'an

17.2.1 From Ontology to Method

Following the ontological foundations of knowledge outlined previously, the Qur'an advances a distinctive *epistemic architecture* that unites the processes of reasoning (*'aql*), reflection (*tafakkur*), verification (*tahqiq*), and witnessing (*shuhud*). Unlike modern scientific epistemology, which privileges empirical observation and falsifiable hypotheses, the Qur'anic method fuses cognition with ethical responsibility, revelation with reflection, and discovery with remembrance.

The Qur'an positions inquiry as a sacred act - not a secular curiosity detached from morality, but a disciplined engagement with divine signs (*ayat*) in the horizons and within the self (Q. 41:53). Knowledge, in this structure, is a journey toward truth that must pass through multiple stages of awareness: perception, reflection, verification, and internalisation.

In the Qur'anic framework, epistemic structures are not merely procedural but existential. To inquire is to purify the self, to align perception with divine purpose. The *'aql* (intellect) functions not as an autonomous faculty but as an instrument of discernment within a divinely ordered reality (Q. 2:164). The Qur'an thus constructs a model of inquiry that is at once rational, contemplative, and revelatory - what might be called a "sacred empiricism."

17.2.2 The Qur'anic Imperative to Reflect (Tafakkur, Tadabbur, and Tadhakkur)

The Qur'an repeatedly commands the human being to engage in acts of deep reflection and critical observation. Three interrelated verbs - *tafakkur* (to reflect), *tadabbur* (to contemplate outcomes), and *tadhakkur* (to recall meaning) - constitute the primary epistemic mechanisms by which human beings move from mere perception to understanding.

“Do they not reflect upon the Qur'an, or are there locks upon their hearts?” (Q. 47:24). “Indeed, in the creation of the heavens and the earth and the alternation of night and day are signs for those who reflect” (Q. 3:190).

These verses affirm that inquiry begins not with scepticism but with *remembrance* - a conscious effort to situate oneself within the divine order of meaning. Reflection (*tafakkur*) activates the intellect to perceive patterns, while contemplation (*tadabbur*) projects these insights toward their ultimate purpose. Together, they constitute the Qur'anic equivalent of both analytical and synthetic reasoning.

The modern scientific method values observation and experimentation; the Qur'an, however, embeds these acts within moral and metaphysical awareness. Observation without remembrance risks becoming mere data collection, whereas reflection within remembrance transforms observation into wisdom (*hikmah*).

The Qur'an thus teaches that knowledge acquisition requires two forms of *seeing*: the external perception of phenomena (*baṣar*) and the internal vision of meaning (*baṣīrah*). As Qur'an 12:108 declares, “Say, ‘This is my way; I invite to Allah with clear insight (*baṣīrah*), I and those who follow me.’”

Here, epistemic vision is equated with *insightful calling* - an intellectual and ethical act simultaneously. The Qur'anic structure of inquiry, therefore, is both empirical and transcendental, grounded in perception but oriented toward revelation.

17.2.3 The Role of Reason (‘Aql) in Qur'anic Inquiry

The intellect (‘*aql*) occupies a central place in the Qur'anic epistemic framework. It is through ‘*aql* that human beings discern order, proportion, and causality in the cosmos - all of which are considered *signs* of divine wisdom (Q. 13:3-4). The Qur'an repeatedly censures those who “do not reason” (*la ya‘qilun*), indicating that rational reflection is an act of worship, not rebellion. “Thus do We explain the signs for a people who use reason” (Q. 30:28).

In contrast to the post-Enlightenment view of reason as a self-sufficient source of knowledge, the Qur'an presents ‘*aql* as a divinely embedded faculty designed to recognise truth, not to fabricate it. Reason, therefore, is *teleological*: its purpose is to lead the knower toward acknowledgement of the Creator (*Rabb al-‘alamin*).

Epistemically, ‘*aql* functions within boundaries set by revelation. The Qur'an warns that unanchored reasoning - reasoning detached from divine guidance - leads to conjecture (*ẓann*), illusion, and arrogance (Q. 45:23; 53:28). Thus, reason's legitimacy depends on its alignment with the ontological reality of divine truth.

In the modern scientific paradigm, reason operates within an immanent framework - bound by empirical verification. The Qur'an, while affirming empirical investigation, situates it within a transcendent horizon. True reasoning is therefore theocentric, not anthropocentric. It begins with *observation* but culminates in *recognition* (*ma‘rifah*). Hence, the Qur'anic structure of reason integrates three dimensions:

- Analytical - discerning order in creation (*'aql al-tajribi*).
- Moral - ensuring reasoning remains within ethical limits (*'aql al-akhlaqi*).
- Spiritual - linking reason to the remembrance of God (*'aql al-murani*).

Together, they prevent the fragmentation of reason that characterises modern thought - where intelligence may be brilliant yet morally blind.

17.2.4 Verification (Taḥqiq) and Certainty (Yaqin)

A distinctive feature of the Qur'anic epistemic structure is its insistence on verification (*taḥqiq*) and certainty (*yaqin*). The Qur'an rejects both blind imitation (*taqlid*) and speculative doubt (*shakk*), affirming a balanced method of confirmatory reasoning. “*And do not pursue that of which you do not know; indeed, the hearing, the sight, and the heart - about all those one will be questioned*” (Q. 17:36).

This verse establishes the moral responsibility of epistemic verification. The sensory faculties (*sam', baṣar*) provide data, but the heart (*qalb*) serves as the integrative organ of meaning. Verification, therefore, requires both empirical examination and inner discernment.

In Qur'anic logic, certainty is achieved when perception, reasoning, and revelation converge. The three stages of *yaqin*- *'ilm al-yaqin*, *'ayn al-yaqin*, and *ḥaqq al-yaqin* - constitute not merely spiritual stations but epistemic milestones. Inquiry progresses from intellectual comprehension to experiential realisation and finally to existential embodiment of truth.

Modern science's reliance on probabilistic certainty contrasts sharply with the Qur'an's ontological certainty. Scientific conclusions remain tentative, subject to revision; Qur'anic knowledge, grounded in revelation, claims ultimate finality at the level of *ḥaqq al-yaqin* - the truth of certainty (Q. 56:95). Yet this finality does not negate investigation; rather, it guarantees that inquiry has a moral and teleological destination.

Hence, *taḥqiq* (verification) in the Qur'an is not a narrow empirical process but a comprehensive validation of meaning across all levels of existence - sensory, rational, and spiritual.

17.2.5 Questioning, Observation, and Argumentation

The Qur'an repeatedly encourages questioning as a legitimate form of epistemic exploration. The verb *sa'ala* (to ask) appears throughout the Qur'an, often in contexts that guide the reader to think critically about existence, ethics, and divine justice. For example: “*They ask you about the mountains. Say, 'My Lord will blow them away with a blast'*” (Q. 20:105). “*And they ask you about the soul. Say, 'The soul is of the affair of my Lord'*” (Q. 17:85).

These verses illustrate the Qur'an's dual approach to inquiry: it welcomes questioning but situates it within epistemic humility. Some realities are accessible to human reasoning, while others transcend its scope. This balance between curiosity and reverence defines the Qur'anic method.

Furthermore, the Qur'an uses dialectical reasoning - *jadāl bi-al-ḥaqq* (argumentation through truth) - as a mode of intellectual clarification: “*And argue with them in the best manner*” (Q. 16:125).

Dialectic in the Qur'anic sense is not polemic but illumination. It exposes false assumptions and refines the intellect through engagement. The Qur'an itself models this method, presenting counterarguments, posing rhetorical questions, and leading the reader toward self-discovery (Q. 52:35-36).

Observation (*nazar*) is another crucial epistemic element. The Qur'an uses *unzuru* ("observe") as a command form repeatedly, urging empirical attention to the natural world: "*Have they not observed the sky above them, how We have constructed it?*" (Q. 50:6).

This emphasis on observation affirms that empirical study is not foreign to revelation; rather, it is its natural extension. The Qur'an's epistemic structure thus integrates sensory observation, rational reflection, and moral discernment into one continuous process of verification.

17.2.6 Memory, Remembrance, and the Cognitive Continuum

The Qur'anic act of knowing is inseparable from remembrance (*dhikr*). Memory serves not merely as a storage of information but as an active, dynamic faculty that binds the present act of knowing to the eternal truth of revelation. The Qur'an, in fact, identifies itself as *dhikr* - the act and object of remembrance (Q. 15:9).

In cognitive terms, *dhikr* functions as the connective tissue between knowledge and meaning. Modern science often divorces cognition from morality, but the Qur'an unites them through remembrance. Forgetfulness (*nisyan*) is treated as the archetype of epistemic failure - a lapse in awareness that leads to moral disorientation (Q. 20:115).

Through *dhikr*, the human intellect remains oriented toward its ontological source. Knowledge thus becomes an act of continuous recollection - the reawakening of what the soul already recognises in its primordial covenant (Q. 7:172). Epistemic integrity, therefore, requires not only observation and reasoning but spiritual memory.

This concept introduces a metaphysical depth to cognition absent from the modern scientific method. While empirical knowledge expands horizontally - across phenomena - Qur'anic knowledge deepens vertically, reconnecting the knower to the divine origin of meaning.

17.2.7 Integration: The Qur'anic Method as a Triadic System

The epistemic structures of the Qur'an may be summarised as a triadic system comprising:

- Empirical Observation (*nazar, sam', basar*) - engagement with the natural world as divine signs.
- Rational Reflection (*'aql, tafakkur, tadabbur*) - analytical discernment of order and purpose.
- Spiritual Verification (*qalb, dhikr, yaqin*) - integration of knowledge into moral and existential truth.

This triad forms a unified epistemic process where each level perfects the previous one. Observation without reflection leads to superficial empiricism; reflection without remembrance leads to sterile

rationalism; remembrance without knowledge risks sentimentalism. The Qur'an harmonises all three, ensuring that knowledge remains both accurate and transformative.

In contrast, the modern scientific method tends to isolate these levels. It excels at observation but neglects metaphysical interpretation. It values analysis but overlooks ethical and spiritual integration. The result is an abundance of information but a poverty of wisdom. The Qur'anic model, by contrast, restores wholeness to inquiry - transforming science from an instrumental pursuit into an act of existential meaning.

17.2.8 Conclusion: Toward a Qur'anic Philosophy of Inquiry

The Qur'an constructs an epistemic architecture grounded in divine purpose, moral responsibility, and ontological unity. Its method of inquiry integrates empirical observation, rational analysis, and spiritual verification into a single continuum of meaning. The *'aql*, *qalb*, and *hawās* (senses) operate not in competition but in harmony, guided by revelation as the ultimate standard of truth.

This framework offers a corrective to the reductionism of modern scientific epistemology. While modern science focuses on the *how* of phenomena, the Qur'an addresses the *why*. It teaches that inquiry without remembrance is blind, and remembrance without inquiry is inert.

Hence, the Qur'anic epistemic structure may be summarised as reflective revelation - an ongoing dialogue between the knower and the divine. To know, in the Qur'an, is to participate in the act of divine disclosure; to discover is to remember; and to verify is to become morally transformed.

By reclaiming this integrated structure of inquiry, contemporary scholarship can reorient science and philosophy toward a theocentric model of knowledge - one that restores balance between reason and revelation, method and meaning, discovery and devotion.

17.3 Comparative Evaluation - Qur'anic and Modern Scientific Rationalities

17.3.1 The Problem of Epistemic Fragmentation

In the modern age, the pursuit of knowledge has largely been confined to the material and empirical dimensions of reality. The epistemic foundation of modern science, shaped by post-Enlightenment rationalism, rests upon the assumption that reality is objective, measurable, and independent of divine purpose. This methodological reductionism, while yielding technological advancement, has simultaneously fragmented the unity of knowledge (Ziauddin Sardar, 1989). In contrast, the Qur'anic framework situates all inquiry within the unity of *tawḥīd*-the ontological oneness of truth that integrates the physical, metaphysical, moral, and spiritual dimensions of existence. The Qur'an asserts that authentic knowing (*ilm*) must lead to awareness of divine purpose and moral accountability: "*He taught Adam the names-all of them...*" (Q. 2:31), "*...and of knowledge you have been given only a little*" (Q. 17:85).

This comparative section aims to evaluate the relationship and divergence between the Qur'anic epistemology and the modern scientific method, particularly regarding their ontological assumptions, epistemic structures, and methods of verification. It argues that while modern science emphasises

objectivity through detachment, the Qur'an emphasises *objectivity through alignment with divine truth*-a harmony between reason (*'aql*), revelation (*wahy*), and moral consciousness (*taqwa*).

17.3.2 Ontological Contrasts: Closed Materialism vs. Open Ontology

The modern scientific worldview is grounded in a material ontology, asserting that all phenomena can be reduced to physical causality and empirical observation (Chalmers, 2013). This ontological reductionism leaves no epistemic room for the unseen (*al-ghayb*), the moral (*al-khayr*), or the spiritual (*al-ruh*). The Qur'an, conversely, begins its epistemology with the unseen as the primary domain of faith and cognition: "*Those who believe in the unseen (alladhina yu'minūna bil-ghayb)*" (Q. 2:3).

In the Qur'anic vision, the unseen is not antithetical to knowledge but is its *epistemic horizon*. The seen (*al-shahadah*) and the unseen (*al-ghayb*) are two dimensions of a single reality that the human intellect is tasked to harmonise through reflection (*tafakkur*), remembrance (*dhikr*), and moral awareness (*taqwa*). Modern science's "closed ontology" confines itself to what is measurable, whereas the Qur'an's "open ontology" includes metaphysical realities that can be known through intellectual inference and spiritual insight (Nasr, 1993).

The modern method's rejection of metaphysical causality-what David Hume described as the unknowability of necessary connection- contrasts sharply with the Qur'an's affirmation of purposeful causality: "*You will not find any change in the law of Allah*" (Q. 33:62).

This verse signifies that natural laws are signs (*ayat*) of divine consistency, not autonomous mechanisms devoid of meaning. Thus, the Qur'an's ontology integrates divine will (*iradah*), law (*sunnat Allah*), and causality (*sababiyyah*) as interdependent realities within a meaningful cosmic order.

17.3.3 Epistemological Structures: Observation, Reflection, and Revelation

In modern science, the process of knowing is constructed through observation, hypothesis, experimentation, and falsification (Popper, 1959). Knowledge is valid only when verified by sensory data and logical coherence. The Qur'an, while affirming observation and reflection, extends epistemic validity beyond empirical verification to include *moral and metaphysical coherence*.

The Qur'an repeatedly calls humans to observe the heavens and the earth, yet always directs such observation toward moral realisation: "*Do they not look into the dominion of the heavens and the earth and all things that Allah has created?*" (Q. 7:185). "*Indeed, in the creation of the heavens and the earth... are signs for those of understanding*" (Q. 3:190). Here, the Qur'an constructs a triadic epistemology:

- Empirical observation (*'ayni nazar*) - seeing with the eye.
- Rational reflection (*'aqli tafakkur*) - understanding with the intellect.
- Revelatory insight (*wahyi idrak*) - perceiving with the heart.

Modern science operates effectively at the first level but largely neglects the second and third, leading to what Seyyed Hossein Nasr (1993) describes as "epistemic amnesia"-the forgetting of higher modes of

knowing. In Qur'anic terms, this forgetting is a spiritual blindness: “*They have hearts with which they do not understand, eyes with which they do not see, and ears with which they do not hear*” (Q. 7:179).

Thus, while both systems value observation, the Qur'an transforms observation into *sign-reading*, a hermeneutics of creation (*ta'wil al-ayat al-kawniyyah*). Science studies the signs as isolated data; the Qur'an studies them as messages revealing divine purpose.

17.3.4 Logic of Verification: Empiricism vs. Revelation-Centred Validation

The scientific method's authority rests upon empirical falsification, and reproducibility-truth must be *testable*. The Qur'an, however, extends the concept of verification (*tahqiq al-haqq*) to include the moral and existential dimensions of truth. Truth (*haqq*) is verified not only through sensory evidence but through coherence with divine revelation and the moral structure of the universe: “*And say: The truth is from your Lord, so whoever wills-let him believe; and whoever wills-let him disbelieve*” (Q. 18:29). Verification, in Qur'anic logic, involves three levels:

- Empirical confirmation (*'ilm al-yaqin*),
- Direct realisation (*'ayn al-yaqin*), and
- Existential embodiment (*haqq al-yaqin*).

Modern scientific rationality terminates at the first level. Its truths are operational, not existential; they explain, but do not *transform*. The Qur'an, on the other hand, requires knowledge to manifest in being and ethics: “*And those who strive for Us-We will surely guide them to Our ways*” (Q. 29:69).

Here, knowledge is validated by moral striving (*jihad fi sabil Allah*). The modern epistemic model tests through repetition; the Qur'an tests through transformation.

17.3.5 Rationality and Purpose: Instrumental vs. Teleological

Modern science operates under what Max Weber called *instrumental rationality*-reason directed toward efficiency and control, not moral or ultimate ends. The Qur'an critiques such reason when detached from divine purpose: “*They know what is apparent of the worldly life, but they are heedless of the Hereafter*” (Q. 30:7).

The Qur'anic paradigm is *teleological rationality*-reason as a means to discern purpose (*hikmah*). Rationality divorced from revelation leads to knowledge without meaning; revelation without reason risks dogmatism. Hence, the Qur'an insists on the balance of *'aql* and *wahy*: “*Do they not ponder upon the Qur'an, or are there locks upon their hearts?*” (Q. 47:24).

Whereas modern science seeks explanation through detachment, the Qur'an demands understanding through engagement, intellectual, ethical, and spiritual. The act of knowing is itself a form of worship (*'ibadah*), for it reaffirms the unity between knower, known, and the source of knowledge.

17.3.6 Comparative Summary: Divergent Rationalities

The comparative table above provides a concise synthesis of the major philosophical and methodological contrasts between modern scientific rationality and Qur'anic epistemology. Each dimension reflects not only a difference in method but a deeper divergence in worldview - the former grounded in material empiricism, the latter in divine-centred integration. This comparison illustrates that the Qur'an does not reject empirical reasoning; rather, it situates it within a *hierarchy of meanings*. Knowledge divorced from divine purpose is incomplete, for it fails to connect cognition with conscience.

Table 17.1 Comparative Summary - Divergent Rationalities

Dimension	Modern Scientific Method	Qur'anic Epistemology
Ontology	Material and mechanistic	Open and theocentric
Method	Observation-hypothesis-experiment	Observation-reflection-revelation
Purpose	Control, prediction, explanation	Understanding, guidance, worship
Verification	Empirical falsifiability	Moral, existential, and revelatory coherence
Rationality	Instrumental (means-oriented)	Teleological (ends-oriented)
Result	Technological power	Ethical transformation

Ontology: The foundation of modern science rests upon a material and mechanistic ontology, where reality is conceived as an autonomous system of physical causes and effects. Nature becomes an object of study, detached from divine purpose. The Qur'an, by contrast, embraces an open and theocentric ontology: all existence originates from and returns to God - "*To Him belongs whatever is in the heavens and the earth*" (Q. 2:284). This openness integrates the seen (*al-shahadah*) and unseen (*al-ghayb*), viewing them as dimensions of one unified creation. The cosmos is not a closed mechanism but a network of signs (*ayat*) through which divine wisdom is continuously manifest.

Method: Modern scientific inquiry progresses through observation, hypothesis, and experimentation, grounded in sensory verification and logical testing (Popper, 1959). The Qur'an also values observation but situates it within a triadic method of observation, reflection, and revelation (*nazar-tafakkur-wahy*). Observation becomes meaningful only when guided by reflection and interpreted through revelation. Hence, Qur'anic reasoning is both analytical and contemplative - empirical in its means but transcendental in its end.

Purpose: While modern science seeks control, prediction, and explanation, Qur'anic epistemology orients knowledge toward understanding, guidance, and worship. The Qur'an's goal of inquiry is ethical

transformation and remembrance of God - “*So that you may know that Allah has power over all things*” (Q. 65:12). Knowledge thus serves the purpose of *taqwa* (moral consciousness), not domination.

Verification: Scientific validity rests on empirical falsifiability, ensuring knowledge is repeatable and testable. The Qur'an's notion of verification (*tahqiq al-haqq*) extends this to moral and existential coherence - truth must align with both reason and revelation. It is not sufficient for knowledge to “work”; it must *guide* and *purify*. True knowledge is confirmed by its ability to lead toward justice and divine remembrance (Q. 16:90).

Rationality: Modern rationality is instrumental, concerned with efficiency and control, whereas Qur'anic rationality is teleological, seeking meaning and ultimate purpose. In the Qur'anic view, reason (*'aql*) functions properly only when aligned with *hikmah* (wisdom). Detached reason leads to arrogance and fragmentation; reason guided by revelation leads to harmony and humility.

Result: Finally, the contrast in results is telling. Modern science yields technological power, but often without moral direction. The Qur'an envisions ethical transformation, knowledge that enlightens the soul and harmonises humanity with creation. In Qur'anic epistemology, the highest knowledge is not mastery over nature, but alignment with *haqq al-yaqin* -the truth that transforms being itself.

17.3.7 Reintegrating the Two Paradigms: Toward an Ethical Science

The Qur'an offers not a rejection but a *reconstruction* of scientific rationality. It encourages exploration (*sair fi al-ard*), but with ethical boundaries and spiritual orientation: “*Travel through the earth and see how He originated creation*” (Q. 29:20).

This imperative legitimises empirical research as a form of *ibadah al-'ilm*-worship through discovery. The Qur'an thus envisions a science that unites inquiry with humility, knowledge with gratitude, and reason with revelation. It transforms epistemology into an act of moral consciousness-an *'ilm al-mas'uliyah* (knowledge of accountability).

To reconstruct an Islamic epistemology in the modern age is therefore not to abandon scientific rigour, but to restore its metaphysical depth. In the Qur'anic view, *true science* must acknowledge both the order of creation and the intention of the Creator. This integration reclaims knowledge as *mur* (light), not merely *nifa'* (utility).

The Qur'an and modern science both seek truth, but they diverge in what they consider the *ultimate truth*. The scientific method's epistemic isolation of material reality limits its capacity to answer metaphysical and moral questions. The Qur'an, on the other hand, defines knowledge as the recognition of divine order, moral responsibility, and existential purpose. The synthesis of these two-empirical precision guided by divine orientation- constitutes the essence of a renewed epistemology that is both rational and revelatory.

In this light, the Qur'an does not stand opposed to science; it redefines its purpose. It transforms the act of inquiry from domination to contemplation, from observation to realisation, and from mere cognition to transformation. The ultimate goal of Qur'anic rationality is not to know *about* reality, but to *become* aligned with truth itself-*haqq al-yaqin*.

17.4 The Ethics of Knowledge - Moral Responsibility in Discovery

In the Qur'anic worldview, knowledge (*'ilm*, علم) is never a neutral possession; it is a sacred trust (*amanah*, أمانة) that entails moral responsibility. The Qur'an unites epistemology and ethics into a single framework of divine accountability, where the act of knowing is inseparable from the duty to uphold truth, justice, and compassion. The ethical dimension of discovery-how knowledge is sought, applied, and transmitted-lies at the heart of Qur'anic epistemology. As the Qur'an states, *"Do not pursue that of which you do not know. Indeed, the hearing, the sight, and the heart-all of these will be questioned"* (Q. 17:36). This verse establishes that every cognitive act carries moral weight; perception, reason, and emotion are subject to divine evaluation.

Thus, the Qur'anic concept of knowledge transcends mere intellectual curiosity. It demands self-purification (*tazkiyah*), sincerity of intention (*niyyah*), and adherence to justice (*'adl*, عدل). This ethical integration transforms the process of discovery into an act of worship, aligning human cognition with divine purpose. The following analysis explores this moral dimension of knowledge, structured through Qur'anic categories of responsibility, humility, truthfulness, and balance.

17.4.1 Knowledge as Amanah: The Trust of Responsibility

The Qur'an declares: *"Indeed, We offered the Trust (al-amanah, الأمانة) to the heavens and the earth and the mountains, but they declined to bear it and feared it; but man undertook to bear it. Indeed, he was unjust and ignorant"* (Q. 33:72). This profound verse captures the cosmic seriousness of human knowledge. The *amanah* is not limited to ethical behaviour but encompasses the very capacity of discernment (*fiqh*), reason (*'aql*), and accountability.

The bearer of knowledge, therefore, carries the obligation to use it rightly. Every scientific discovery or philosophical insight is part of this trust. To distort or misuse knowledge constitutes *zulm* (injustice) and *kibr* (arrogance), while to align it with divine purpose is to fulfil one's covenant with God. The Qur'an thus frames intellectual life as an ethical vocation: to guard knowledge from corruption, concealment, and arrogance.

Moreover, the ethical character of knowledge defines the moral identity of the knower. As the Qur'an states, *"Only those who know His servants fear Allah"* (Q. 35:28). This *khashyah*-awe before divine truth is the hallmark of authentic epistemology. It transforms knowledge from possession into reverence, from power into responsibility.

17.4.2 Avoiding Arrogance (Kibr) and Corruption (Fasad) in Knowledge

One of the greatest moral dangers in the pursuit of knowledge is the temptation of arrogance (*kibr*, كبر). The Qur'an warns repeatedly against intellectual pride that distances the heart from truth: *"I will turn away from My signs those who are arrogant upon the earth without right; and if they see every sign, they will not believe in it"* (Q. 7:146). This verse exposes the epistemic blindness that arises from moral

corruption. When arrogance enters the cognitive process, observation and reasoning lose their sincerity, leading to the distortion of truth.

Modern scientific civilisation, for all its achievements, often exemplifies this danger: knowledge pursued without humility becomes a mechanism of control rather than a path of illumination. The Qur'an challenges this paradigm by linking true knowledge to humility before creation and its Creator. To discover is not to dominate, but to witness. The Qur'anic term *ayah* (آية), meaning both "sign" and "verse," signifies that the study of nature is simultaneously the reading of revelation. The ethical scientist or thinker recognises that every act of discovery unfolds within divine signs and thus carries spiritual accountability.

The Qur'an equally warns against *fasad*, *corruption*, and imbalance resulting from the misuse of knowledge. "Do not cause corruption in the earth after it has been set in order" (Q. 7:56). This command applies not only to ecological or social corruption but to epistemic corruption—the manipulation of truth for personal or institutional gain. When knowledge serves ego or power rather than justice and compassion, it departs from its divine function.

17.4.3 Truthfulness (Ṣidq) and Integrity in Research

The Qur'anic ethic of *ṣidq* (صدق, truthfulness) establishes honesty as the cornerstone of intellectual life. The Qur'an commands: "O you who believe! Fear Allah and be with the truthful" (Q. 9:119). Truth in the Qur'anic sense is not merely correspondence between statement and fact, but the alignment between inner intention and outer expression. To speak or write knowledge is thus an act of moral witnessing.

In the context of modern scholarship, this Qur'anic standard demands transparency, verification, and the rejection of fabrication or plagiarism. Any concealment or distortion of truth constitutes a betrayal of *amanah*. The Qur'an warns: "Indeed, those who conceal what We sent down of clear proofs and guidance after We made it clear for the people in the Scripture—those are cursed by Allah" (Q. 2:159). Concealment of truth is an epistemic crime because it disrupts the moral structure of knowledge transmission.

Therefore, the Qur'anic researcher must uphold honesty not only in findings but also in methodology and motive. Research becomes a form of *ibadah* (worship) when conducted with sincerity (*ikhlas*), humility (*tawadu'*), and dedication to truth (*haqq*). The Qur'an's call to "speak the truth even against yourselves" (Q. 4:135) remains the ethical foundation of scholarly integrity.

17.4.4 The Principle of Balance (Mizan) in Discovery

The Qur'an describes the universe as founded upon *mizan* (ميزان, balance): "And the heaven He raised and imposed the balance, that you not transgress within the balance" (Q. 55:7-8). This balance operates as both a physical law and an ethical principle. It calls upon humanity to pursue knowledge that sustains rather than disrupts the harmony of creation.

In epistemological terms, *mizan* demands the equilibrium of reason (*'aql*), intuition (*basirah*), and revelation (*wahy*). Each faculty must operate within its proper measure. Rational inquiry without spiritual balance leads to reductionism, while mystical intuition without reason leads to speculation. The Qur'an

integrates both under divine balance, reminding us that true discovery occurs when intellect and revelation mirror each other's light.

Furthermore, *mizan* prohibits the exploitation of knowledge for destructive ends. Technological innovations, when divorced from ethical restraint, lead to an imbalance in nature and society. The Qur'an calls humanity to restore *mizan* through the just use of knowledge, ensuring that discovery promotes life, justice, and mercy, never domination or excess.

17.4.5 Accountability (Mas'uliyah) and the Judgment of Knowledge

The Qur'an closes the epistemic circle with the principle of accountability (*mas'uliyah*, مسؤولية): “*And do not pursue that of which you do not know. Indeed, the hearing, the sight, and the heart—all of these will be questioned*” (Q. 17:36). This verse explicitly frames human cognition as a moral trust subject to judgment. Every thought, observation, and discovery carries ethical consequences.

In contemporary research culture, where knowledge is often pursued for profit or prestige, this Qur'anic warning demands a paradigm shift. Knowledge divorced from moral accountability becomes dangerous, generating both physical and spiritual harm. The Qur'an's vision reclaims knowledge as *dhikr* (ذكر, remembrance), a constant awareness of divine presence guiding the intellect.

This accountability extends to collective structures of knowledge production: universities, laboratories, and media institutions. Qur'anic epistemology demands that such institutions function as moral ecosystems, where discovery is guided by truth and humility rather than competition and control. In this light, the moral responsibility of knowledge transcends individual conscience—it becomes a communal covenant.

17.4.6 Toward a Qur'anic Ethic of Discovery

The ethical architecture of Qur'anic epistemology presents discovery not as domination but as participation in divine wisdom. To know is to serve, and to discover is to remember. Each Qur'anic command to observe nature—“*Do they not look at the camels, how they are created?*” (Q. 88:17)—is simultaneously a call to gratitude and moral awareness. Discovery thus becomes an act of devotion, connecting the knower to the known through the Creator.

In this vision, science, philosophy, and theology converge as dimensions of worship. The moral goal of inquiry is *taqwa*—awareness that integrates intellectual curiosity with spiritual humility. When guided by *taqwa*, human discovery reflects divine order and fulfills its purpose: “*We will show them Our signs in the horizons and within themselves until it becomes clear to them that it is the truth*” (Q. 41:53). Knowledge, when ethically grounded, leads to recognition of divine unity (*tawhid*) and restores harmony between mind, soul, and cosmos.

The Qur'an situates the ethics of knowledge at the heart of human purpose. To know is to bear trust; to discover is to act responsibly. The modern world's separation of science from morality has fragmented human consciousness, but the Qur'an restores unity by fusing discovery with devotion. The *'alim*

(knower) and the *'abid* (worshipper) are the seeker whose intellect is guided by humility and whose discovery leads to justice.

In the Qur'anic epistemological framework, ethics is not an afterthought of discovery but its essence. Knowledge devoid of responsibility is ignorance disguised as progress. True discovery must therefore lead to illumination, not exploitation; to harmony, not imbalance. The Qur'an's moral structure transforms the act of knowing into an act of becoming, where the seeker, through truth, draws closer to the Source of all knowledge, *al-Alim* (The All-Knowing).

17.5 Verification (Taḥqiq) vs. Experimentation: A Comparative Analysis

17.5.1 Two Epistemic Pathways to Truth

The human pursuit of truth unfolds through two broad epistemic orientations: taḥqiq (Qur'anic verification grounded in divine order and moral consciousness) and experimentation (modern scientific observation based on sensory validation and logical inference). Both modes aim at *disclosure of the real*, yet their ontological assumptions and ethical frameworks differ profoundly. In the Qur'an, knowledge is not merely an act of sensory discovery but a process of *moral realisation*-an uncovering of divine wisdom embedded within creation (*ayat fī al-afaq wa fī anfusikum*, Q. 41:53). Experimentation, in contrast, arises from the secular epistemic paradigm of human-centred observation and technological manipulation of phenomena (Nasr, 1993). The Qur'an transforms empirical engagement into *taḥqiq*-a verification that binds observation to remembrance, reason to revelation, and discovery to accountability.

17.5.2 The Qur'anic Concept of Taḥqiq (Verification)

The Arabic term taḥqiq (تحقيق) derives from the root *ḥaqq* (حق), meaning truth, right, or reality. Its semantic field encompasses *realising, confirming, authenticating, and actualising truth*. In the Qur'anic framework, *taḥqiq* is not a mechanical confirmation of data but a spiritual unveiling of what is real in its divine correspondence. The term *al-ḥaqq* (The Truth) appears as one of the attributes of God (Q. 22:6; 24:25), indicating that *truth* is not abstract but ontologically divine. Therefore, *taḥqiq* entails the human endeavour to align knowledge with divine truth-an act of witnessing (*shuhud*) rather than mere testing.

The Qur'an repeatedly calls upon humankind to "verify" (*yuḥaqqiqū*) through reflection, not assumption. It warns against conjecture (*ẓann*), declaring: "Conjecture avails nothing against the truth" (Q. 10:36). Verification thus involves *cognitive purification*, removing false assumptions that obscure clarity of vision. It is an epistemic discipline of moral cognition, ensuring that human understanding mirrors divine order rather than human pride. The Qur'anic *taḥqiq* proceeds through reflection on signs (*ayat*), observation of phenomena, and rational synthesis grounded in the principle of *tawḥid* (unity). The "signs" of the heavens, earth, and self are not to be experimented upon as detached objects but to be contemplated as divine communications (Q. 51:20-21). This produces knowledge that is simultaneously empirical, rational, and spiritual.

17.5.3 Experimentation in the Modern Scientific Paradigm

Experimentation, in its modern sense, refers to the systematic observation, manipulation, and measurement of variables to test hypotheses under controlled conditions. It emerged historically through the Enlightenment shift from metaphysical certainty to empirical verifiability (Popper, 1959). Modern science operationalises truth as *predictive accuracy* rather than metaphysical coherence. It aims to produce *functional explanations* rather than ontological meanings (Kuhn, 1962). This paradigm rests upon several assumptions:

- Epistemic Autonomy - human reason and sensory perception are sufficient for knowledge.
- Causality as Closure - phenomena are self-contained systems with no transcendent cause.
- Utility as Verification - truth is validated through technological success or social utility.

While experimentation has produced unprecedented advances in material knowledge, its framework isolates *fact* from *value* and *truth* from *meaning*. In doing so, it tends to reduce knowledge to data, wisdom to efficiency, and discovery to power (Husserl, 1970). The Qur'an, conversely, integrates these dimensions by treating every act of inquiry as an *amanah* (trust) toward God, not a conquest over nature.

17.5.4 The Epistemological Difference: Tahqiq as Transcendent Verification

The central epistemological divergence between *tahqiq* and experimentation lies in their teleology-the end toward which inquiry moves.

- Experimentation seeks *explanation* through cause-and-effect relations within the observable world.
- Tahqiq seeks *realisation* through correspondence between the knower, the known, and the divine order.

In experimentation, the subject investigates the object as external, detached, and measurable. In *tahqiq*, the knower encounters the signs of God as both external and internal realities (Q. 41:53). Verification here is a *communicative act* between human consciousness and divine revelation-a dialogue of reflection rather than manipulation. The Qur'an challenges humankind to "consider deeply" (*afala tatafakkarun*, Q. 30:8) and to "observe" (*afala yanzurun*, Q. 88:17-20), but always in a manner that leads to *recognition of truth* (*haqq*) rather than dominance over it.

In other words, *tahqiq* transcends *testing*; it is the manifestation of divine truth through disciplined contemplation. The observer is not a neutral agent but a moral subject accountable for what he perceives. Knowledge is not owned but entrusted; truth is not manufactured but revealed through intellectual humility.

17.5.5 Methodological Comparison: From Observation to Realisation

The comparative table above outlines the fundamental methodological divergence between the Qur’anic process of discovery and the modern empirical method, revealing how both begin from observation but diverge sharply in their ontological grounding, epistemic assumptions, and ultimate goals.

This comparative framework reveals that *tahqiq* and experimentation are not inherently opposed but differently oriented. Experimentation can serve *tahqiq* when subordinated to a Qur’anic cosmology of meaning. However, when experimentation becomes self-referential-an autonomous arbiter of truth-it collapses into reductionism.

Table 17.2: Methodological Comparison: From Observation to Realisation

Aspect	Qur’anic Methodology (From Observation to Realisation)	Modern Empirical Methodology (From Observation to Explanation)
Ontological Ground	Reality (<i>al-ḥaqq</i>) is unified, divine, and meaningful; existence manifests divine will and purpose.	Reality is self-contained, material, and value-neutral; existence is an observable fact.
Epistemic Source	Revelation (<i>wahy</i>), reason (<i>‘aql</i>), and sensory experience (<i>sam‘</i> , <i>baṣar</i> , <i>Fu’ad</i>) operate in harmony.	Sensory perception and inductive reasoning are primary and autonomous sources of knowledge.
Method of Discovery	Reflective observation of <i>ayat</i> (signs), moral reasoning, and synthesis of knowledge through <i>tawḥid</i> .	Observation, hypothesis formation, and experimental validation through measurable data.
Logic of Verification	<i>Tahqiq</i> - verification through correspondence with divine truth, moral coherence, and ontological unity.	Verification through empirical testing, replication, and falsifiability.
Purpose of Inquiry	Realisation of divine wisdom and fulfilment of moral accountability; knowing as worship (<i>‘ibadah</i>).	Acquisition of functional knowledge for prediction, control, and technological advancement.
Role of the Knower	Witness (<i>shahid</i>) and moral agent entrusted with divine trust (<i>amanah</i>) in the act of knowing.	Detached observer, independent of moral or spiritual responsibility within inquiry.
Outcome of Knowledge	Integration of cognition, faith, and ethics; transformation of self and society toward justice.	Production of usable knowledge; advancement of technology and material progress.

In the Qur'anic worldview, the journey of knowing proceeds *from observation to realisation*, transforming sensory engagement into spiritual awareness. The Qur'an repeatedly invites humankind to observe the natural order - "*Do they not look at the camels, how they are created?*" (Q. 88:17) - not as an end in itself but as a means to discern the unity and purpose underlying creation. Observation (*nazar*) is therefore the first step in a hermeneutic ascent leading toward *tahqiq* - the realisation of divine truth through understanding and ethical transformation.

Modern empiricism, by contrast, moves *from observation to explanation*. It aims to construct a framework of causal relations and measurable regularities that can predict or manipulate phenomena. This approach, while effective in advancing technological mastery, remains epistemically horizontal - confined within the plane of physical causation. The Qur'anic method, on the other hand, incorporates the vertical dimension of meaning: every cause and effect is an *ayat*, signs that point beyond itself to divine wisdom.

The table's first row captures this ontological distinction. The Qur'an affirms reality (*al-haqq*) as a divine manifestation - not an autonomous structure but a living, communicative cosmos filled with meaning (Q. 41:53). Modern science, however, presupposes an immanent ontology, where meaning arises only through human interpretation and empirical modelling. Thus, while both investigate the same cosmos, they inhabit different metaphysical horizons: one sacred, the other secular.

The epistemic sources in the second row reflect these ontologies. The Qur'an unites revelation, reason, and sensory experience as complementary modes of knowing (Q. 16:78), ensuring that intellectual exploration is never divorced from moral orientation. Modern methodology, however, isolates sense-data and inductive logic as autonomous instruments of verification, excluding revelation as non-scientific. This exclusion fragments the unity of knowledge and narrows the field of inquiry to the empirically testable.

The third and fourth rows-method of discovery and logic of verification- illustrate how *tahqiq* differs from experimentation. In Qur'anic inquiry, observation leads to *reflection (tafakkur)* and *comprehension (ta'qqul)* within the unity of *tawhid*. Verification means harmonising perception with revelation and moral truth, not merely reproducing data. In contrast, modern experimentation depends on replication and falsifiability, which, while powerful within limited domains, cannot account for the metaphysical, moral, or existential dimensions of truth.

The final rows expose the ethical and teleological differences between the two systems. In Qur'anic epistemology, the purpose of inquiry is the realisation of divine wisdom and fulfilment of human trust (*amanah*). The knower is a witness (*shahid*) accountable to God, whose moral state affects the purity of perception and judgment (Q. 17:36). Knowledge thus carries an intrinsic ethical responsibility. The modern paradigm, however, regards the knower as a neutral observer, with ethics externalised into post-discovery applications rather than built into the act of inquiry itself.

Ultimately, the Qur'anic movement *from observation to realisation* seeks not only accurate description but ontological transformation -to know truth is to become aligned with it. Knowledge is not an instrument

of control but a path of remembrance (dhikr) leading to wisdom (*hikmah*). The Qur'an thereby restores the sacred balance between cognition and conscience, turning the process of knowing into a spiritual ascent from seeing the world to witnessing the divine within it.

17.5.6 Verification as Ethical Science: The Qur'anic Integration

The Qur'an envisions verification as a continuous process of ethical discovery. The act of knowing is always moral because it involves choices that affect creation and human purpose. The command “*and do not pursue that of which you do not know*” (Q. 17:36) integrates epistemology with accountability. Verification thus operates under the discipline of truthfulness (*ṣidq*) and trust (*amanah*). The Qur'an rejects epistemic arrogance by reminding humanity that even the most advanced knowledge is partial: “You have been given of knowledge only a little” (Q. 17:85). This humility forms the ethical foundation of Qur'anic verification-*tahqiq* as self-restraint in interpretation and self-purification in understanding.

When the scientist becomes aware that every empirical discovery is an *ayah* of God, experimentation transforms into *ibadah* (act of service). Verification becomes worship; inquiry becomes remembrance. The Qur'an does not deny sensory knowledge but refines it into a moral epistemology. Empiricism is redeemed when subordinated to *tawḥid*-the unity of meaning, existence, and truth.

17.5.7 Toward a Unified Epistemology of Discovery

A Qur'anic reconstruction of epistemology must not reject experimentation but reintegrate it within *tahqiq*. The Qur'an calls for the use of sensory faculties (*sam' , baṣar, fu'ad*) to approach truth (Q. 16:78), yet it insists that these faculties operate under spiritual guidance. The scientific method, when divorced from revelation, risks becoming a tool of domination; but when guided by *tahqiq*, it becomes a means of moral illumination. The Qur'an thus envisions a *science of meaning*-a discipline where empirical observation and metaphysical realisation coexist. Verification and experimentation, properly harmonised, yield not only knowledge of the world but knowledge of the self and of God.

17.5.8 Verification Beyond Experiment

In conclusion, *tahqiq* and experimentation represent two distinct yet potentially complementary epistemic orientations. The Qur'an transforms the act of inquiry from a mechanical testing of objects to a sacred encounter with truth. It situates verification within the moral-spiritual cosmos of *tawḥid*, where knowledge is simultaneously revelation, realisation, and responsibility. Experimentation without *tahqiq* may produce technological power but epistemic blindness; *tahqiq* without empirical engagement may yield abstraction without embodiment. The Qur'anic synthesis restores balance: observation becomes worship, discovery becomes service, and truth becomes lived reality.

In this synthesis, verification (*tahqiq*) transcends the laboratory into the heart of human consciousness. It transforms the knower from an observer of phenomena to a participant in divine truth, completing the Qur'anic circle of knowledge: to know is to witness, to witness is to realise, and to realise is to serve.

17.6 The Qur'anic Reinterpretation of Empiricism and Rationalism

17.6.1 Reclaiming the Balance Between Sense and Intellect

The dichotomy between empiricism and rationalism, as historically developed in Western epistemology, revolves around two competing claims: that knowledge is derived primarily from sensory experience (empiricism) or from innate reasoning and logical reflection (rationalism). Thinkers such as John Locke and David Hume grounded epistemic certainty in sensory impressions, while Descartes and Leibniz emphasised reason as the foundation of knowledge. However, the Qur'an presents a third epistemological synthesis, transcending both material empiricism and abstract rationalism by integrating *ḥiss* (sensory perception), *'aql* (intellect), *qalb* (heart-consciousness), and *wahy* (divine revelation) into a unified hierarchy of knowing.

This synthesis does not dismiss the empirical nor the rational, but subordinates both to a higher metaphysical coherence: the knowledge (*'ilm*) that proceeds from and returns to Allah as the ultimate source of truth (Q. 2:255; 20:114). The Qur'an thus redefines knowledge not as a static possession but as a dynamic unveiling of reality (*ḥaqiqah*) through perception, reflection, and moral purification. The Qur'anic view neither opposes sense to reason nor revelation to observation; rather, it orients all toward a teleological end - *li-ya 'lamu anna Allaha huwa al-ḥaqq* ("so that they may know that Allah is the Truth," Q. 24:25).

17.6.2 The Qur'anic Reconciliation: From Dualism to Unity

The Qur'anic epistemology overcomes the dualism between empiricism and rationalism through an ontological monism rooted in *tawḥid* (the oneness of God). This unity manifests epistemically in the harmony between observable creation (*ayat fi al-afaq*) and internal reflection (*ayat fi anfusikum*) as seen in Qur'an 41:53 - "*We shall show them Our signs in the horizons and in themselves until it becomes clear to them that this is the Truth.*"

This verse encapsulates the Qur'anic model of epistemic harmony: the external world (empirical data) and the inner consciousness (rational reflection) are co-witnesses to divine truth. Unlike Western rationalism, which often abstracts reason from revelation, or empiricism, which confines truth to material observation, the Qur'an affirms both as *ayat* - divine signs that jointly reveal *ḥaqq* (truth). Thus, sense and reason are not autonomous but complementary, operating under the divine directive of *tahqiq* (verification of truth) rather than human conjecture (*ẓann*).

In this synthesis, the Qur'an does not advocate blind rationalism or mere sensualism but a rational empiricism guided by divine purpose. Every act of observation (*nazar*) and reasoning (*ta'aqqul*) is validated by its moral alignment and its capacity to lead the human intellect toward recognising divine order and unity. Hence, empirical and rational activities are both sacred acts of *'ibadah* (worship) when directed toward the discovery of divine wisdom.

17.6.3 Qur'anic Empiricism: Observation as Worship

Empiricism in the Qur'anic worldview is not reduced to sensory experience as an end in itself but elevated into an act of perception that reveals divine wisdom. Numerous verses command humans to “observe” (*unzuru, yanzurun*) and “travel in the land” (*siru fi al-ard*) to understand the processes of creation and destruction (Q. 6:11; 29:20; 30:9). This is not empirical curiosity divorced from faith, but a theological empiricism grounded in *tadabbur* (deep contemplation) and *tafakkur* (reflection).

The Qur'an repeatedly condemns those who “see but do not perceive” (Q. 7:179), pointing to a moral blindness that invalidates mere sensory data. True empiricism, therefore, is inseparable from ethical purification and spiritual attentiveness. The verse “Do they not look at the camels, how they are created?” (Q. 88:17) exemplifies this - observation is not only about zoological structure but about divine creativity and proportion (*taqdir*). The Qur'an redefines empiricism as *'ibrah* (moral reflection from experience), where each observation becomes a bridge between the finite and the infinite.

Unlike Humean scepticism, which isolates sensory experience from causality and metaphysics, the Qur'an frames experience as teleological revelation - every sensory encounter has meaning because it points back to its Creator (Q. 67:3-4). Thus, Qur'anic empiricism can be described as *metaphysical empiricism*, where sense-data serve the higher aim of recognising divine order and sustaining moral responsibility.

17.6.4 Qur'anic Rationalism: The Intellect as Servant of Revelation

Rationalism in the Qur'an finds its centre in *'aql*, the intellectual faculty that discerns meanings, distinguishes truth from falsehood, and recognises divine law. However, the Qur'an explicitly warns against *'aql* becoming autonomous from revelation. The verse “They have hearts with which they do not understand” (Q. 7:179) demonstrates that reason without moral guidance degenerates into arrogance and blindness.

Unlike Cartesian rationalism, which posits *cogito* (“I think, therefore I am”) as the foundation of being, the Qur'an asserts *tawhid* (“Allah is the One, therefore all being derives from Him”) as the foundation of both existence and cognition. In Qur'anic rationalism, the act of thinking is *'ibadah* - a moral act conditioned by *taqwa* (God-consciousness).

Qur'an 2:269 declares, “He gives wisdom to whom He wills, and whoever is given wisdom has indeed been given abundant good,” indicating that rational discernment is divine bestowal, not autonomous invention. Hence, Qur'anic rationalism can be understood as theology-infused reason: rational inquiry is valid insofar as it recognises divine order and submits to revelation's boundaries.

The Qur'an repeatedly invites human reasoning (*afala ta'qilun?* - “Will you not use your reason?”) yet simultaneously sets moral and metaphysical limits to reason's independence. This synthesis ensures that rational inquiry becomes spiritually fruitful rather than self-destructive, as exemplified by Iblis, who reasoned logically but disobeyed morally (Q. 7:12).

Therefore, Qur'anic rationalism is a moralised rationalism - a reason purified by humility before divine revelation, not reason enthroned as an idol.

17.6.5 The Qur'anic Integration: From Observation to Realisation

The Qur'anic epistemic model unites empirical observation, rational reflection, and spiritual realisation in a tripartite progression: *nazar* (observation) → *tafakkur* (reflection) → *tahqiq* (realisation of truth). Each stage builds upon the previous but culminates only when knowledge transforms into *yaqin* (certainty).

This can be represented through the following conceptual model (explained previously in Table 17.5.5, “Methodological Comparison: From Observation to Realisation”). The Qur'an frames knowledge as a process where external data, internal cognition, and metaphysical awareness form a continuous circle.

Thus, empiricism provides the input (data of creation), rationalism provides the interpretive framework (cognition and reasoning), and revelation provides the teleological purpose (ultimate truth and moral orientation). Without revelation, empiricism becomes relativistic; without observation, rationalism becomes speculative.

This synthesis finds its climax in verses like Qur'an 3:190-191: *“Indeed, in the creation of the heavens and the earth and the alternation of the night and day are signs for those of understanding - those who remember Allah while standing, sitting, and lying on their sides and reflect on the creation of the heavens and the earth.”*

Here, empirical observation (“creation of the heavens and the earth”) merges with rational reflection (“those who reflect”) and culminates in spiritual realisation (“they remember Allah”) - completing the triadic epistemological process.

17.6.6 Qur'anic Epistemology as a Model of Integrative Knowing

In contemporary philosophy, the polarisation between empiricism and rationalism has often been moderated by attempts at synthesis (e.g., Kant's transcendental idealism). Yet, even such syntheses remain epistemically immanent - confined to human cognition. The Qur'anic paradigm transcends this by rooting both sense and reason in divine revelation.

It asserts that the epistemic act is simultaneously ontological, moral, and spiritual. Knowledge is not neutral; it transforms the knower and directs the soul toward *haqq*. Qur'an 35:28 declares: *“It is only those who know His servants who fear Allah.”* This verse encapsulates the Qur'anic essence of knowing: to know is to revere; thus, true knowledge cannot lead to atheism or nihilism, for it awakens humility before divine reality.

Modern science's empirical methods, though efficient, often isolate observation from moral accountability. Similarly, modern rationalism often detaches reason from metaphysical purpose. The Qur'an reintegrates both within a sacred teleology: observation becomes contemplation, reason becomes submission, and discovery becomes remembrance (*dhikr*).

17.6.7 Toward a Qur'anically Reconstructed Epistemology

The Qur'anic reinterpretation of empiricism and rationalism offers a holistic epistemological framework that integrates the sensory, intellectual, and spiritual dimensions of human knowing. Empiricism (*hiss* and *nazar*) and rationalism (*'aql* and *fikr*) are both legitimate but incomplete without *wahy* (divine revelation), which orients their exercise toward truth and justice.

The Qur'an transforms empiricism into a moral act of witnessing and rationalism into a spiritual act of discernment, thus abolishing the secular divide between subject and object, knower and known. The final aim of all knowledge, according to the Qur'an, is not mastery of nature but recognition of divine unity and order - *inna Allaha bi-kulli shay'in Alim* ("Indeed, Allah is Knowing of all things," Q. 2:282).

Therefore, the Qur'anic epistemology restores the sacred coherence between observation and revelation, reason and faith, making knowledge once again an act of ethical responsibility, metaphysical awareness, and spiritual realisation.

17.7 The Hierarchy of Knowing: From 'Ilm to Ma'rifah

17.7.1 Introduction: The Qur'anic View of Knowledge as a Spiritual Ascent

In the Qur'anic worldview, knowledge is not a static possession or intellectual construct but a dynamic ascent of consciousness toward divine truth. It proceeds through multiple degrees, each refining perception, intention, and spiritual receptivity. This process transforms the knower, not merely his ideas. The Qur'an repeatedly links knowledge (*'ilm*) with moral purification, faith, and wisdom, implying that to know truly is to become righteous, humble, and aware of one's dependence upon Allah (Q. 35:28; 58:11).

This section explores what may be called the hierarchy of knowing in Qur'anic epistemology - a structured ascent from *'ilm* (cognitive knowledge) to *yaqin* (convictional certainty), from *yaqin* to *ma'rifah* (realised gnosis), and from *ma'rifah* to *hikmah* (wisdom, the culmination of epistemic and ethical perfection). This hierarchy integrates empirical, rational, and spiritual dimensions of knowing within the single metaphysical unity (*tawhid*) of the Divine Reality.

Unlike the linear epistemic models of Western thought, the Qur'anic hierarchy is circular and recursive: every higher stage of knowledge refines and reinterprets the lower one, culminating in recognition that "*To Allah belongs the ultimate knowledge of all things*" (Q. 31:34).

17.7.2 The First Level: 'Ilm (Cognitive Knowledge)

The foundation of all Qur'anic epistemology is *'ilm*, which occurs more than 750 times in various forms in the Qur'an. It encompasses awareness, understanding, and factual recognition - whether sensory, rational, or revealed. However, *'ilm* in the Qur'an transcends mere data acquisition; it is a sacred trust (*amanah*) rooted in divine endowment.

Allah introduces *'ilm* as a gift and responsibility: "*He taught Adam the names of all things*" (Q. 2:31). This verse establishes that knowledge is divinely mediated - a bestowed capacity to discern, name, and

relate phenomena within creation. Human knowledge thus begins with divine instruction (*talim*), not autonomous discovery.

Furthermore, *ilm* in the Qur'an carries ethical weight: “Say, are those who know equal to those who do not know?” (Q. 39:9). The measure of knowledge is not quantity but righteousness, for “it is only those who know His servants who fear Allah” (Q. 35:28). This reveals a moralized epistemology: knowledge entails responsibility before God, and ignorance is not an epistemic defect alone but a moral failing.

At this level, *ilm* represents the discursive and empirical stage of knowing - the engagement of intellect (*aql*) and senses (*hiss*) within the framework of revelation (*wahy*). However, the Qur'an does not allow this stage to become self-sufficient. Without spiritual orientation, *ilm* can become arrogance, as exemplified by Qarun, whose knowledge led to pride and destruction (Q. 28:78). Thus, *ilm* must ascend toward *yaqin* to become spiritually fruitful.

17.7.3 The Second Level: *Yaqin* (Certainty of Truth)

The transition from *ilm* to *yaqin* marks the movement from conceptual knowledge to existential conviction. The Qur'an employs the term *yaqin* (certainty) in profound ways, especially in connection with eschatological awareness: “And worship your Lord until there comes to you *al-yaqin*” (Q. 15:99). In this context, *yaqin* is not mere cognitive assurance but unwavering inner conviction grounded in direct awareness of divine reality. The Qur'an distinguishes three stages of certainty:

- *Ilm al-yaqin* - knowledge of certainty (intellectual conviction through evidence).
- *Ayn al-yaqin* - eye of certainty (experiential vision).
- *Haqq al-yaqin* - truth of certainty (complete realisation or unity with truth).

This triad, articulated in Qur'an 102:5-7 and 56:95, encapsulates the ascending degrees of conviction. *Ilm al-yaqin* corresponds to rational certainty - the stage where intellect verifies through proofs. *Ayn al-yaqin* corresponds to empirical witnessing - the soul perceives what the intellect once reasoned. Finally, *Haqq al-yaqin* represents metaphysical union - the truth itself becoming self-evident to the purified heart (*qalb salim*).

In Qur'anic psychology, *yaqin* transforms knowledge into spiritual stability and moral coherence. While *ilm* may coexist with doubt or error, *yaqin* is unshakeable because it is illuminated by divine light (*mur*). The believer who attains *yaqin* sees the world as signs (*ayat*), not as autonomous realities. This certainty removes fear and confusion, grounding ethical conduct in divine trust (*tawakkul*) and hope (*raja*).

Hence, *yaqin* is not epistemic arrogance but epistemic humility - the recognition that truth belongs to Allah alone, and that one's certainty is participation in His self-disclosure. Through *yaqin*, knowledge (*ilm*) becomes transformative, bridging mind and soul.

17.7.4 The Third Level: Ma'rifah (Realised Knowledge or Gnosis)

When *'ilm* and *yaqin* are purified by remembrance (*dhikr*) and moral sincerity (*ikhlas*), they evolve into *ma'rifah* - the realised knowledge of divine presence. *Ma'rifah* (from the root *'arafa*, to know intimately or recognise) is not a technical term of abstract theology, but a Qur'anic and spiritual state of inner recognition of divine reality.

While *'ilm* is discursive and *yaqin* is confirmatory, *ma'rifah* is relational and transformative - the knowledge of the heart by which the knower is changed by what he knows. The Qur'an alludes to this through the verses: "*They recognise the favours of Allah and then deny them*" (Q. 16:83) - implying that *ma'rifah* is a form of knowing inseparable from gratitude, love, and submission.

The prophets exemplify *ma'rifah* as a living cognition of divine nearness: "*We are closer to him than his jugular vein*" (Q. 50:16). This verse defines the essence of *ma'rifah* - awareness of divine immanence (*qurb*), where knowledge is no longer about God but with God.

Ma'rifah is the stage where epistemology becomes theology; the knower realises that all knowing is a disclosure of the Divine in creation. The Qur'an calls such people *ulu al-albab* ("*people of inner cores*") who "*remember Allah standing, sitting, and lying down*" (Q. 3:191). Their knowledge becomes *dhikr* (remembrance), and their remembrance becomes *'ilm*.

From an epistemic standpoint, *ma'rifah* corresponds to direct intuition (*kashf*) - an unveiling of truth beyond rational deduction, yet not irrational. It integrates intellect and spirit in a harmony of perception that mirrors divine unity. This level is neither mystical irrationalism nor emotional subjectivity; it is the realisation of truth through moral purification and divine illumination (cf. Q. 24:35 - "*Allah is the Light of the heavens and the earth*").

In this state, the knower becomes a mirror of divine attributes: compassionate, just, and wise. Thus, *ma'rifah* culminates not in speculative theology but in ethical embodiment - a life lived in accordance with divine awareness.

17.7.5 The Fourth Level: Hikmah (Wisdom)

At the summit of the epistemic hierarchy lies *hikmah*, which integrates knowledge (*'ilm*), certainty (*yaqin*), and realisation (*ma'rifah*) into practical and ethical perfection. The Qur'an frequently couples *hikmah* with *Kitab* (revelation), indicating that wisdom is the embodiment of divine law in conscious action: "*He teaches them the Book and the Wisdom*" (Q. 2:129).

Hikmah is not mere intellectual acumen or pragmatic skill; it is the moral and spiritual art of applying knowledge in harmony with divine justice. As the Qur'an states, "*He gives wisdom to whom He wills, and whoever is given wisdom has indeed been given abundant good*" (Q. 2:269). This verse establishes that wisdom is both divine bestowal and ethical responsibility - a grace that transforms cognition into compassion and theory into righteous praxis.

While *'ilm* informs, *yaqin* confirms, and *ma'rifah* transforms, *hikmah* actualises. It manifests as sound judgment, moral integrity, and spiritual insight (*furqan*), enabling discernment between right and wrong (Q. 8:29). It is the stage at which knowledge becomes creative participation in divine order - a reflection of Allah's own attribute *al-Hakim* (The Wise).

In Qur'anic anthropology, *hikmah* is the goal of human intellect. It signifies the maturity of the knowing self (*nafs mutma'innah*), who perceives the world not as chaos but as divinely ordered meaning. The Prophet Muhammad (peace be upon him) exemplifies this stage - his Sunnah embodies wisdom in action, merging revelation and compassion, intellect and intuition.

Thus, *hikmah* completes the ascent of knowledge: it is the flowering of *'ilm*, the fruit of *yaqin*, and the fragrance of *ma'rifah*.

17.7.6 The Hierarchical Structure Summarised

This table encapsulates the spiritual and cognitive architecture of knowledge as articulated in the Qur'an. It illustrates how the process of knowing (*ma'rifat al-haqa'iq*) unfolds through a structured ascent - from *'ilm* (rational knowledge) to *yaqin* (certainty), to *ma'rifah* (realised gnosis), and finally to *hikmah* (wisdom). Each stage represents not only a different mode of cognition but also a different degree of being, implying that epistemology and ontology are inseparable in the Qur'anic worldview (Nasr, 1989).

Table 17.3: The Hierarchical Structure of Knowing in Qur'anic Epistemology: From 'Ilm to Hikmah

Stage	Qur'anic Concept	Nature of Knowledge	Dominant Faculty	Spiritual Effect	Epistemic Goal
1	<i>Ilm</i>	Cognitive and discursive knowing	Intellect (<i>'aql</i>), senses (<i>hiss</i>)	Awareness and learning	Understanding divine order
2	<i>Yaqin</i>	Convictional and existential certainty	Intellect and faith (<i>iman</i>)	Stability and trust (<i>tawakkul</i>)	Certitude of truth
3	<i>Ma'rifah</i>	Realised gnosis and inner recognition	Heart (<i>qalb</i>) and spirit (<i>ruh</i>)	Intimacy with divine reality	Realisation of presence
4	<i>Hikmah</i>	Integrative and practical wisdom	Whole being	Moral perfection and justice	Harmonisation with divine will

This hierarchy portrays Qur'anic knowledge as a movement from the outer to the inner, from cognition to illumination. The senses initiate, the intellect interprets, the heart realises, and the soul embodies - all under divine guidance. The process is cumulative, where each level purifies and elevates the previous one.

Stage 1: 'Ilm - The Foundation of Knowing

The first stage, *'ilm*, is the foundation of human consciousness and inquiry. It corresponds to the rational and empirical awareness that allows the human being to perceive and interpret the signs (*ayat*) of Allah. The dominant faculties here are the *'aql* (intellect) and the *hiss* (senses). Through observation, reflection, and learning, humanity engages the world as a book of divine symbols (Q. 3:190-191).

However, Qur'anic *'ilm* is not value-neutral; it carries ethical and spiritual responsibility (Q. 35:28). It demands humility and awareness of divine sovereignty. Without this moral dimension, *'ilm* can devolve into arrogance or misguidance, as exemplified in the case of Qarun (Q. 28:78). Thus, while *'ilm* opens the door of understanding, it remains incomplete without its spiritual maturation into *yaqin*.

Stage 2: Yaqin - From Knowing to Certainty

The second stage, *yaqin*, marks the transition from intellectual comprehension to existential conviction. While *'ilm* involves knowing *about* truth, *yaqin* involves being convinced *by* truth. The Qur'an defines *yaqin* as a form of unwavering assurance that transforms thought into inner stability (Q. 15:99).

Here, knowledge becomes internalised; it is no longer speculative but lived. The faculty of *iman* (faith) fuses with *'aql*, grounding the believer in divine trust (*tawakkul*). *Yaqin* liberates the knower from scepticism and replaces doubt with luminous confidence - a state in which ethical responsibility and spiritual awareness coexist harmoniously (Q. 56:95).

Stage 3: Ma'rifah - The Realisation of Divine Presence

The third stage, *ma'rifah*, transcends cognitive certainty and enters the realm of relational and experiential knowledge. It arises when the heart (*qalb*) and spirit (*ruh*) recognise divine presence not as an abstraction but as an immediate reality: "*We are closer to him than his jugular vein*" (Q. 50:16).

Ma'rifah transforms epistemology into spirituality. It is the recognition of Allah through inner illumination, where the knower and the known are united in awareness without ontological confusion. At this stage, knowing is inseparable from loving and obeying. It represents the moral fruition of *'ilm* and *yaqin*, purifying the knower's intention and aligning his perception with divine reality (Q. 24:35).

Stage 4: Hikmah - The Completion of Knowledge

The highest stage, *hikmah*, represents the perfection of knowledge in action. It is wisdom - the harmony of intellect, faith, and ethical practice. The Qur'an identifies *hikmah* as both a divine gift and an ethical responsibility: "*He grants wisdom to whom He wills, and whoever has been granted wisdom has indeed been granted abundant good*" (Q. 2:269).

At this level, all faculties - intellect, heart, and spirit - function in unison. *Hikmah* unites *'ilm* and *'amal* (action), bridging theory and practice. It is the realisation that true knowledge must serve justice, compassion, and harmony with divine will. Hence, the knower becomes not only aware of truth but also embodies it through character, humility, and moral balance.

The Structure as a Whole: Knowing as Theomorphic Transformation

Viewed together, the four stages form a vertical continuum of enlightenment - an epistemic ascension that mirrors the Qur'anic journey from outer perception to inner realisation. Knowledge begins with rational engagement (*'ilm*), becomes conviction (*yaqin*), transforms into intimate awareness (*ma'rifah*), and culminates in moral wisdom (*hikmah*).

This ascent illustrates the Qur'an's unique integration of ontology and epistemology: to know is to be transformed. True knowledge (*'ilm al-haqq*) thus leads to ethical responsibility and spiritual fulfilment, reaffirming that the purpose of knowing is not domination over creation but alignment with the Creator (Q. 96:1-5).

In essence, Table 17.6.1 summarises the Qur'anic pedagogy of consciousness - a progression from empirical observation to divine realisation, culminating in wisdom that reflects the unity (*tawhid*) of truth, knowledge, and being.

17.7.7 Knowledge as Theomorphic Ascent

The Qur'anic hierarchy of knowing reveals that true knowledge is not accumulation but transformation. To know is to ascend - from perception to conviction, from conviction to realisation, from realisation to wisdom. This ascent reflects the journey of the soul itself, described in Qur'an 89:27-30: "*O tranquil soul, return to your Lord, well-pleased and well-pleasing. Enter among My servants and enter My Paradise.*"

Knowledge in the Qur'an is thus the path of return (*ruju'*) to the Divine. *'Ilm* acquaints the knower with divine order, *yaqin* anchors him in divine truth, *ma'rifah* unveils divine presence, and *hikmah* unites him with divine will. Each stage refines the epistemic mirror until it reflects only the light of *al-Haqq* (The Truth). Therefore, the Qur'an's epistemology culminates in an ethical and ontological transformation: the knower becomes a locus of divine manifestation.

In sum, the hierarchy from *'ilm* to *hikmah* represents the spiritual architecture of knowledge in Islam - a continuous ascent of awareness through faith, reflection, purification, and divine illumination, until the intellect becomes wisdom and the soul becomes light.

17.8 Epistemic Ethics: The Moral Use of Knowledge in the Qur'anic Paradigm

17.8.1 Knowledge as Moral Energy

The Qur'an conceptualises *'ilm* (knowledge) not merely as a cognitive achievement but as a moral and spiritual trust (*amanah*). Human beings are described as bearers of this trust, which even the heavens, the earth, and the mountains declined to bear (Q. 33:72). Thus, knowledge in the Qur'anic vision carries ethical weight: it must be pursued, verified, and applied in accordance with divine justice (*'adl*), mercy (*rahmah*), and truth (*haqq*). In this framework, epistemology and ethics are inseparable - for the purpose of knowing is not dominance over creation but guidance within it (Q. 2:185).

The Qur'an rejects the notion of neutral or value-free knowledge. Every act of knowing carries an ethical dimension because it arises within the domain of *takwin* (creation) and *tashri'* (divine law), both of which reflect divine intentionality (Q. 6:73; 59:24). Hence, when knowledge is used to manipulate, corrupt, or deceive, it departs from its Qur'anic foundation. The Qur'an repeatedly warns against those "who know the outward of the world's life, but are heedless of the Hereafter" (Q. 30:7), distinguishing between cognitive capability and moral insight. This separation, the Qur'an asserts, leads to the destruction of both the individual and civilisation.

17.8.2 Knowledge and Accountability

A central epistemic ethic in the Qur'an is *mas'uliyah* (accountability). Every act of knowing entails moral responsibility: "Do not pursue that of which you do not know. Surely hearing, sight, and heart - all of these shall be questioned" (Q. 17:36). Here, the Qur'an ties the human faculties of knowing directly to moral judgment. Knowledge is not simply accumulated data; it becomes a moral test of how one perceives, interprets, and acts upon reality. This is why the Qur'an describes false knowledge as a form of *zulm* (injustice): when one asserts what is untrue or conceals the truth, one commits a moral violation against both reason and revelation (Q. 2:42).

This principle redefines epistemic authority. Authority in knowledge arises not from social position or institutional recognition but from alignment with truth (*haqq*). Those who "conceal what Allah has revealed" (Q. 2:159) or "argue about Allah without knowledge, guidance, or an illuminating Book" (Q. 22:8) represent the epistemic failure that corrupts societies. Thus, the Qur'anic ethic demands that knowledge must be transparent, truthful, and accountable to divine reality - not subservient to material interests or human arrogance.

17.8.3 The Ethics of Discovery and Use

The Qur'an encourages inquiry (*tafkir, tadabbur, ta'auqul*) as a divine command, yet it simultaneously restricts inquiry within ethical bounds. Human curiosity must not transgress the limits of divine wisdom or lead to harm (*fasad*). As the Qur'an declares: "Do not cause corruption upon the earth after it has been set right" (Q. 7:56). In modern terms, this verse functions as an epistemic injunction against unethical experimentation and technological misuse. Scientific discovery, therefore, must operate under the principle of *islah* (rectification) rather than *ifsad* (corruption).

In the Qur'anic worldview, moral intention (*niyyah*) determines the legitimacy of discovery. Knowledge acquired for self-aggrandisement or exploitation of others violates the Qur'anic ethic. Conversely, knowledge sought to alleviate suffering, enhance justice, or deepen awareness of creation becomes an act of worship (*ibadah*). The Qur'an declares: "And do not walk on the earth exultantly. Indeed, you will never tear the earth apart" (Q. 17:37), which metaphorically condemns epistemic arrogance - the illusion that human knowledge is self-sufficient and unrestricted.

17.8.4 The Corruption of Knowledge: Misuse and Deviation

Throughout the Qur'an, examples abound of communities destroyed not due to ignorance but due to the misuse of knowledge. The story of Qarun (Korah) exemplifies this moral warning. He possessed vast

knowledge of worldly affairs but used it to dominate and oppress (Q. 28:76-83). The Qur'an records his downfall as a symbol of epistemic corruption - when intellect is divorced from humility and gratitude. Similarly, Iblis's rebellion is rooted in intellectual pride; he "knew" but refused to obey the moral truth (Q. 7:12-13). Hence, both cases represent the degeneration of knowledge into hubris (*istikbar*), leading to spiritual ruin.

Modern civilisation faces a similar challenge: the proliferation of knowledge without ethical orientation. The Qur'an warns that knowledge devoid of divine consciousness becomes destructive: "*They know the names of things, yet they do not understand*" (cf. Q. 2:31-33). In this sense, the Qur'an anticipates the modern dilemma - technological advancement coupled with moral decline - and calls for an epistemic reform grounded in *taqwa* (God-consciousness). Knowledge, when purified by *taqwa*, transforms from mere information into wisdom (*hikmah*) that guides moral action (Q. 2:269).

17.8.5 Epistemic Justice and the Social Function of Knowledge

The Qur'anic epistemic ethic extends to the societal level, where knowledge must promote justice and equity. "*Stand firm for justice, witnesses for Allah, even against yourselves*" (Q. 4:135) represents not merely legal instruction but epistemological command: truth must be upheld even when it contradicts personal or collective interests. The production of knowledge, therefore, cannot be ethically neutral; it must serve truth and human welfare. This directly contrasts with modern paradigms that commodify knowledge for profit or power.

In the Qur'anic paradigm, *'ilm* must serve *'adl* (justice). When knowledge perpetuates inequality, deception, or ecological harm, it ceases to be true *'ilm*. The Qur'an's repeated condemnation of *kadhīb* (falsehood) and *zulm* (oppression) extends to intellectual practices that distort truth or suppress dissenting understanding. Hence, Qur'anic epistemology demands epistemic justice - ensuring that knowledge remains accessible, honest, and aligned with divine truth.

17.8.6 The Integration of Moral and Cognitive Dimensions

The Qur'an consistently integrates moral and cognitive dimensions of human consciousness. The heart (*qalb*), intellect (*'aql*), and soul (*nafs*) form a unified field of knowing where moral purity enables cognitive clarity. "*It is not the eyes that are blind, but the hearts within the chests*" (Q. 22:46) reflects that moral blindness precedes intellectual failure. Thus, ethical corruption undermines epistemic capacity; the morally heedless cannot perceive truth even if they possess data. Conversely, the purified heart becomes a locus of divine illumination: "*Allah expands the breast for Islam*" (Q. 6:125), symbolising openness to truth through humility and sincerity.

The Qur'an's epistemic ethics thus transform cognition into moral praxis. Every act of reflection (*tafakkur*) and verification (*tahqiq*) becomes an act of devotion. Knowledge, in this vision, is not merely descriptive but transformative - it purifies the knower and reforms society. The ultimate purpose of *'ilm* is not domination but guidance (*huda*).

17.8.7 Knowledge as a Sacred Trust

In Qur'anic epistemology, the moral use of knowledge defines the boundary between civilisation and destruction. Knowledge that forgets its divine source becomes an idol; knowledge that remembers its moral purpose becomes light (*mur*). The Qur'an declares: “*Allah is the Light of the heavens and the earth*” (Q. 24:35), suggesting that all true knowledge must reflect this light - illuminating both intellect and conscience.

Therefore, the Qur'anic paradigm envisions an epistemic ethics rooted in *tawhid*: unity between knowing, being, and valuing. This unity rejects dualisms between science and morality, intellect and faith, or theory and action. The true knower (*'alim*) does not accumulate information, but rather one who embodies divine wisdom in life. Thus, epistemology becomes a pathway of moral awakening - the realisation that knowing is an act of serving truth, sustaining justice, and manifesting the divine trust within creation.

17.9 The Problem of Value-Neutral Knowledge in Modern Science

17.9.1 The Myth of Neutrality

Modern science, emerging from Enlightenment rationalism, is often premised on the belief that knowledge can be *value-neutral* - that human inquiry can operate independently of moral, metaphysical, or theological commitments. This claim, central to positivism and empiricism, presents science as an objective enterprise concerned solely with facts and not with values (Comte, 1853; Weber, 1949). Yet, the Qur'an rejects such epistemic bifurcation. Knowledge (*'ilm*) in the Qur'an is never neutral because it is always embedded within *tawhid* (divine unity), which integrates fact, meaning, and value within a single ontological reality.

In Qur'anic discourse, the pursuit of knowledge is inherently ethical because knowing is an act of engagement with creation - a creation that reflects divine purpose and order (Q. 3:190-191; 67:3-4). The knower is therefore morally implicated in how and why they seek, interpret, and apply knowledge. The claim of neutrality, from a Qur'anic standpoint, represents a profound epistemic illusion: it abstracts knowledge from responsibility, thereby transforming it into a tool of domination rather than guidance.

Thus, the “problem of value-neutral knowledge” in modern science is not simply methodological but ontological - it reflects a fragmented worldview that divorces fact from meaning, reason from revelation, and inquiry from conscience. The Qur'an's integrated epistemology exposes this fragmentation and offers a corrective framework rooted in moral intentionality (*niyyah*), divine accountability (*mas'uliyah*), and the ethical purpose (*maqṣad*) of knowledge.

17.9.2 The Philosophical Genesis of Value-Neutral Science

Modern science's detachment from value originates in the 17th-century mechanistic paradigm, where nature was reconceived as inert matter subject to mathematical laws (Descartes, 1637/1985; Bacon, 1620/2000). This mechanistic view eliminated teleology - purpose - from natural philosophy, reducing existence to observable phenomena. By the 19th century, positivism formalised this view: all legitimate knowledge was said to arise from sensory observation and empirical verification, while metaphysical or moral claims were deemed meaningless (Comte, 1853).

From the Qur'anic standpoint, this historical trajectory represents an epistemic amputation. The Qur'an defines knowledge as awareness of the *ayat* - the "signs" of God in creation, revelation, and the self (Q. 41:53). To observe without perceiving meaning is to remain in partial ignorance. The Qur'an repeatedly critiques those who "look but do not see, hear but do not listen, and think but do not understand" (Q. 7:179; 22:46), describing them as having lost the integrative consciousness necessary for true knowledge.

Modern science's self-proclaimed neutrality thus contradicts the Qur'anic logic of discovery, where observation (*nazar*), reflection (*tafakkur*), and discernment (*ta'qqul*) are morally directed activities. The Qur'an does not separate epistemic accuracy from moral rectitude; rather, it asserts that cognition itself is conditioned by moral and spiritual states (Q. 2:10; 47:17). Hence, "neutrality" is a moral fiction - every inquiry presupposes an orientation toward or away from truth.

17.9.3 The Qur'anic Critique of Detached Knowing

The Qur'an identifies several epistemic pathologies that parallel the modern notion of detached or value-free knowing:

- Knowing Without Awareness of the Whole (*Juz'iyah* without *Kulliyah*) - The Qur'an condemns partial knowledge that ignores divine unity. "*They know the outward of the life of this world, but of the Hereafter they are heedless*" (Q. 30:7). This verse exposes a key flaw in empiricism: the reduction of reality to its material dimension, ignoring metaphysical and ethical significance.
- Knowledge Without Purpose (*Ilm bila 'Amal*) - The Qur'an rebukes those who possess knowledge yet fail to act rightly: "*The example of those who were entrusted with the Torah but did not bear it is like that of a donkey carrying books*" (Q. 62:5). The principle applies universally - knowledge that is divorced from moral purpose becomes empty weight.
- Knowledge That Corrupts (*Ilm al-Mufsid*) - The Qur'an warns of knowledge that leads to arrogance and corruption: "*Qarun was of the people of Moses, but he behaved arrogantly toward them... he said, 'I was only given it because of knowledge I possess'*" (Q. 28:76-78). This narrative reflects the epistemic arrogance of modern technocracy, where scientific mastery replaces moral humility.

Through these examples, the Qur'an constructs an ethical ontology of knowledge in which knowing is inseparable from moral being. Knowledge, if not sanctified by *taqwa* (God-consciousness), degenerates into *jahl murakkab* (compound ignorance) - the illusion of knowing while being unaware of one's blindness.

17.9.4 The Myth of Objectivity and the Human Subject

The modern scientific method presumes an impersonal observer capable of complete detachment from the object of study. The Qur'an, however, portrays the human knower as a moral subject whose perception is always conditioned by inner states. "*It is not the eyes that are blind, but the hearts within the chests*" (Q. 22:46). The verse subverts the ideal of objectivity by affirming that vision - physical or intellectual - depends upon moral integrity.

From a Qur'anic standpoint, *objectivity* does not mean emotional or ethical detachment; it means alignment with *haqq* (truth). Truth, in the Qur'an, is not constructed through consensus or experimentation alone but discerned through correspondence with divine order. Hence, the Qur'anic knower is both subjective (in moral responsibility) and objective (in recognition of divine reality).

Modern science, by contrast, treats the observer as morally inert, reducing human agency to procedural compliance. The consequence is epistemic alienation - the scientist studies life while remaining ethically estranged from it. This alienation breeds crises in fields such as biotechnology, artificial intelligence, and environmental science, where technical capacity outpaces moral comprehension. The Qur'an diagnoses this disjunction as *fasad* - corruption resulting from human arrogance (Q. 30:41).

17.9.5 Knowledge and Power: The Modern Epistemic Crisis

The illusion of neutrality conceals the power dynamics inherent in modern knowledge production. Science, in the Qur'an's moral lens, becomes corrupted when it serves domination rather than stewardship (*khilafah*). The Qur'an declares: "*Do not transgress in the earth after it has been set right*" (Q. 7:56). The command situates human inquiry within ethical limits: knowledge must sustain balance (*mizan*), not disrupt it.

When knowledge becomes an instrument of exploitation - whether economic, political, or ecological - it violates its divine function. The Qur'an warns that "*when authority is given to those who corrupt, they ruin the land and destroy its crops and progeny*" (Q. 2:205). The verse describes a universal epistemic pathology: the detachment of knowledge from responsibility produces injustice and environmental decay.

Contemporary manifestations of this crisis include climate change, technological surveillance, and militarised innovation. Each arises from knowledge unmoored from moral purpose. The Qur'an's epistemology calls for *'ilm muḥaddad bi'l-akḥlaq* - knowledge bounded by ethics - where truth and justice guide every application.

17.9.6 The Qur'anic Reconstruction of Scientific Value

The Qur'an provides a conceptual framework for integrating value and knowledge through three interrelated principles:

- Unity (*Tawḥid*) - All phenomena derive from a single source of truth. Hence, knowledge must reflect the unity of the Creator and creation (Q. 6:73; 59:24). Scientific inquiry is an exploration of divine order, not its negation.
- Purpose (*Maqṣad*) - Every act of knowing has a teleological aim: to enhance guidance (*huda*) and justice (*'adl*). The Qur'an asserts that creation is not purposeless: "*We did not create the heavens and the earth and what is between them in vain*" (Q. 38:27). To study without seeking purpose is to violate the nature of existence itself.
- Accountability (*Mas'uliyah*) - Humans will be questioned for their knowledge: "*Then you will surely be asked that Day about the blessings*" (Q. 102:8). Knowledge is a divine blessing and thus a trust (*amanah*). Its misuse constitutes betrayal.

Through these principles, the Qur'an reconstructs the scientific ethos. Knowledge must not be confined to instrumental utility but directed toward moral realisation. In this sense, *tahqiq* (verification) replaces *experimentum* as the epistemic criterion - verification includes not only factual accuracy but moral validity.

17.9.7 Ethical Implications for Contemporary Sciences

In the contemporary world, the claim of neutrality justifies policies and technologies that ignore moral and spiritual consequences. Genetic modification, artificial intelligence, and nuclear power exemplify this separation. The Qur'an, however, calls for an ethic of restraint and reverence. “*And do not walk upon the earth arrogantly*” (Q. 17:37). Scientific progress that disregards humility transgresses divine boundaries.

A Qur'an-based science would redefine research priorities. It would integrate environmental care (*hifz al-bi'ah*), social justice, and compassion into its objectives. Knowledge would be evaluated not merely by predictive power but by its contribution to human flourishing and cosmic balance. The Qur'an envisions a civilisation where knowledge serves mercy (*rahmah*): “*And We have not sent you but as a mercy to the worlds*” (Q. 21:107). This mercy is not limited to revelation but extends to the ethos of discovery itself.

17.9.8 The Qur'anic Solution: Knowledge as Ethical Illumination

Against the modern myth of neutrality, the Qur'an proposes *mur al-'ilm* - the light of knowledge. “*Allah is the Light of the heavens and the earth*” (Q. 24:35). This metaphor signifies that knowledge is intrinsically luminous when aligned with divine truth. The Qur'an does not call for rejection of science but for its re-illumination - restoring its moral and spiritual purpose.

True objectivity, therefore, is achieved not by detachment but by purification of intention. The knower must align the intellect (*'aql*) and conscience (*qalb*) to perceive truth without distortion. Such alignment transforms knowledge from an instrument of control into an act of stewardship.

The Qur'an's vision culminates in the unity of truth and goodness - the epistemic *tawhid* where to know rightly is to act. Neutral knowledge, being metaphysically impossible, must give way to morally grounded knowing that recognises the sacredness of creation and the responsibility of humanity within it.

17.9.9 From Value-Neutrality to Value-Integration

The problem of value-neutral knowledge in modern science is ultimately the problem of moral amnesia. By isolating fact from value, modernity has produced an epistemology without conscience - powerful yet blind. The Qur'an restores balance by re-integrating ontology, epistemology, and ethics. Every act of knowing is simultaneously an act of moral choice.

Thus, the Qur'an offers an alternative scientific ethos: inquiry as worship, discovery as stewardship, and knowledge as trust. The solution to the epistemic crisis lies not in more data but in deeper awareness of responsibility. The Qur'an's closing admonition is decisive: “*And say, 'My Lord, increase me in knowledge'*” (Q. 20:114). This prayer encapsulates the Qur'anic ethos - knowledge must grow, but only within humility, gratitude, and reverence for the Source of all truth.

17.10 Toward a Qur'anically-Informed Scientific Paradigm

17.10.1 Introduction: The Crisis of Epistemic Fragmentation

The modern scientific worldview, since the Enlightenment, has cultivated an unprecedented mastery over nature through empirical observation and technological innovation. Yet it has also engendered a crisis of meaning, where knowledge has been severed from its moral and metaphysical roots. The Qur'an critiques this form of *'ilm* devoid of *hikmah* (wisdom), where human discovery is reduced to material functionality without remembrance (*dhikr*) of its Source. As the Qur'an declares: "*They know the outward of the life of this world, but of the Hereafter they are heedless*" (Q. 30:7).

This verse precisely identifies the epistemic limitation of modern science-it grasps the phenomenal but neglects the noumenal; it measures processes but overlooks purpose. The Qur'an does not reject observation (*ru'yah, basar, nazar*), but situates it within a teleological frame where every discovery should lead to *ta'abbur* (deep reflection) and *tasbih* (recognition of divine perfection). Thus, the challenge before contemporary epistemology is not technological but spiritual: to reintegrate human knowing with divine meaning.

A Qur'anically-informed scientific paradigm, therefore, must restore the vertical axis of knowledge that connects empirical inquiry to metaphysical accountability. It must transform the *instrumental* pursuit of facts into a *theomorphic* journey toward truth (*al-haqq*). Such a reconstruction does not imply the negation of modern science, but its reorientation within the higher logic of Qur'anic epistemology.

17.10.2 From Secular Empiricism to Tawhidic Science

The foundation of Qur'anic science lies in the concept of *tawhid*-the ontological unity of all existence under divine sovereignty. In contrast to modern secular empiricism, which isolates phenomena into mechanistic chains, the Qur'an views the cosmos as a unified, purposeful, and morally significant text (*Kitab al-kawn*). Each natural event is an *ayah* (sign), not merely a datum. "*Indeed, in the creation of the heavens and the earth and the alternation of night and day are signs (ayat) for those who reflect*" (Q. 3:190).

Here, *ayah* signifies more than a physical event-it is a hermeneutic gateway between the seen (*shahadah*) and the unseen (*ghayb*). Thus, the Qur'anic scientist is not a detached observer but an interpreter of divine language. His method is empirical in process yet theological in intention.

Under *tawhid*, knowledge is a sacred trust (*amanah*), and observation becomes worship (*'ibadah*). The act of inquiry, when purified of arrogance, becomes participation in divine wisdom. The Qur'anic paradigm transforms the epistemic posture from control to contemplation, from reductionism to integration.

Therefore, the new paradigm must abandon the dichotomy between "scientific" and "religious" knowledge. The Qur'an affirms that *'ilm* in its true sense encompasses both matter and meaning, the physical and the metaphysical. It teaches that discovery without remembrance leads to tyranny, whereas

remembrance without discovery leads to stagnation. The Qur'anic balance between *'aql* (reason) and *qalb* (heart) is the essence of this new synthesis.

17.10.3 The Three Dimensions of Qur'anic Scientific Paradigm

A Qur'anically-informed science rests on three interrelated dimensions: ontological unity, epistemological integration, and ethical accountability.

Ontological Unity (Tawḥid as Metaphysical Foundation): Modern science posits a pluralistic ontology—an autonomous, self-existing universe governed by impersonal laws. The Qur'an, however, establishes that all existence is contingent upon divine will (*kun fa-yakun*; Q. 36:82). Nature, therefore, is not self-subsistent but theophanic: it manifests divine attributes (*asma' al-ḥusna*).

In this framework, scientific laws are not mere regularities but reflections of divine constancy (*sunnat Allah*; Q. 33:62). Studying nature is thus an act of reading divine traces. This ontological unity dissolves the Cartesian dualism between subject and object, mind and matter, observer and observed. Every particle bears witness (*shahadah*) to divine order.

Epistemological Integration ('Aql and Qalb in Harmony): The Qur'an does not privilege intellect over heart, but harmonises them as dual instruments of knowing. Rational deduction (*ta'aqqul*) and moral intuition (*tafaqquh*) must operate in concert. Modern empiricism isolates cognition from conscience, while the Qur'an fuses analysis with awe. As it declares: “*Only those who know fear Allah among His servants*” (Q. 35:28).

Fear here signifies not terror but reverent consciousness (*taqwa*), the ultimate epistemic virtue. A Qur'anically-informed scientist, therefore, measures not only the precision of data but the purity of intent. His method becomes an ethical act, guided by divine remembrance.

Ethical Accountability ('Ilm as Amanah): Knowledge of the Qur'an is a moral responsibility. Those who possess it are warned: “*Do not conceal knowledge which Allah has made clear*” (Q. 2:159).

In the modern age, scientific neutrality has often led to moral evasion—technological progress serving destruction, not compassion. The Qur'anic paradigm restores accountability: knowledge must serve justice (*'adl*), mercy (*rahmah*), and balance (*mizan*). Science must be judged by its contribution to life (*ḥayah*), not power.

Therefore, every discovery demands ethical self-scrutiny: does it align with *fitrah* (the natural moral order)? Does it preserve *mizan* (balance in creation)? The Qur'an warns that human excess leads to corruption: “*Corruption has appeared on land and sea because of what the hands of people have earned*” (Q. 30:41).

Thus, ethics is not an external regulation but an internal epistemic condition—the heart's orientation toward truth.

17.10.4 Methodological Transformation: From Measurement to Meaning

The Qur'an invites humanity not merely to measure reality but to *read* it (*iqra' bi-ismi rabbika*; 96:1). Modern science has mastered measurement but lost the art of reading signs. The Qur'an's method is semiotic-it treats the universe as a symbolic text whose signs unfold divine realities. This redefinition transforms experiment into contemplation and theory into remembrance. A Qur'anically-informed methodology includes:

- Empirical engagement (*nazar*, observation): rigorous and disciplined examination of natural phenomena.
- Rational reflection (*tafakkur*, reasoning): identifying patterns, causes, and meanings within divine order.
- Moral discernment (*taqwa*, ethical vigilance): aligning discovery with divine values.
- Spiritual realisation (*ma'rifah*, direct recognition): interior assimilation of truth through remembrance and humility.

Such a framework transcends positivism without abandoning empiricism-it integrates sensory, rational, and spiritual cognition into a single process of divine unveiling.

Whereas modern experimentation isolates the object from its sacred dimension, Qur'anic *tahqiq* (verification) situates all knowledge within the horizon of truth. It demands that the knower be transformed by what he knows. Hence, epistemology becomes a form of *tazkiyah* (purification), where knowing is inseparable from being.

17.10.5 The Vision of a Tawḥidic Science

The Qur'an envisions a science that harmonises cosmic understanding with moral purpose-a *tawḥidic science* rooted in unity, meaning, and justice. This science does not reject modern achievements but redeems them from fragmentation. It transforms laboratories into sanctuaries of reflection and turns technology into an instrument of compassion. Such a paradigm would:

- Restore teleology-science must serve the divine purpose of sustaining life and justice.
- Reinstate moral intentionality-knowledge must emerge from humility and gratitude, not domination.
- Reintegrate metaphysics-laws of nature reflect divine wisdom, not mere chance.
- Reaffirm human trusteeship (*khilafah*)-the scientist is guardian of creation, not its exploiter.

In this vision, Qur'anic science becomes a form of *ibadah*-serving Allah through the search for truth. It embraces experiment but within the remembrance of the Creator; it values logic but under the light of revelation. It envisions human knowledge as a bridge between the visible and the invisible, the finite and the eternal.

The comparative synthesis presented in Table 1.4 illustrates the fundamental contrasts between the modern scientific paradigm and the Qur'anically-informed scientific paradigm across ontological,

epistemological, and ethical dimensions. Each category reflects not merely a methodological divergence but a deeper philosophical orientation concerning the nature of reality, the purpose of knowledge, and the moral responsibility of the knower.

Table 17.4: Comparative Synthesis - From Modern Science to Qur'anic Science

Aspect	Modern Scientific Paradigm	Qur'anically-Informed Scientific Paradigm
Ontological Basis	Materialist, mechanistic universe	Tawh̄idic unity of all existence under Divine will
Epistemic Goal	Control and prediction	Understanding and reverence (<i>ma'rifah, taqwa</i>)
Methodological Focus	Empirical observation and experimentation	Integrated <i>tahqiq</i> (verification through intellect, heart, and revelation)
Moral Orientation	Value-neutral, utilitarian	Ethically accountable, purposeful
View of Nature	Object to be mastered	Sign (<i>ayah</i>) to be interpreted
Status of Knower	Detached observer	Moral agent and trustee (<i>khaliiyah</i>)
Outcome of Knowledge	Technological power, domination	Spiritual humility, justice, balance (<i>mizan</i>)
Ultimate Aim	Material progress	Divine nearness (<i>qurb ila Allah</i>)

Ontological Basis: Modern science is grounded in a materialist ontology, wherein the universe is conceived as a self-subsisting mechanism governed by impersonal physical laws. Reality, within this worldview, is quantifiable and reducible to matter, motion, and measurable forces. The Qur'an, however, situates ontology within the principle of tawh̄id-the unity of all existence under the sovereignty of Allah. The cosmos is not autonomous but contingent, continuously sustained by divine command (*amr Allah*). This ontological unity transforms scientific inquiry into a theological reading of the universe, where every law of nature becomes an expression of divine regularity (*sunnat Allah*; Q. 33:62). Thus, while modern science seeks causation, Qur'anic science seeks *signification*-the meaning embedded within causality.

Epistemic Goal: In the modern framework, knowledge is pursued for control and prediction -to harness natural forces for human benefit. This anthropocentric model of knowing often culminates in domination rather than understanding. The Qur'an, conversely, defines the goal of *'ilm* as recognition and reverence. True knowledge leads to *ma'rifah* (awareness of divine reality) and *taqwa* (moral consciousness). As the

Qur'an declares, "Only those who know fear Allah" (Q. 35:28). Hence, the ultimate telos of knowing is not mastery but submission; not exploitation but realisation.

Methodological Focus: Modern science privileges empirical observation and experimentation as the exclusive criteria of truth. Its method is inductive, cumulative, and instrumental. The Qur'an, while affirming empirical engagement (*nazar, ru'yah*), integrates it into a holistic process of *tahqiq* (verification through intellect, heart, and revelation). This synthesis involves both rational reflection (*tafakkur*) and moral discernment (*taqwa*). Observation becomes sacred when oriented by remembrance (*dhikr*), transforming data into divine signs (*ayat*). Thus, Qur'anic methodology is inclusive-it accepts empirical validity but situates it within an ethical and metaphysical framework.

Moral Orientation: Perhaps the most decisive distinction lies in moral grounding. Modern science often claims value neutrality, detaching knowledge from ethics. The Qur'an rejects this separation, asserting that knowledge without moral guidance leads to corruption (*fasad*). As stated: "Corruption has appeared on land and sea because of what the hands of people have earned" (Q. 30:41). In the Qur'anic paradigm, knowledge is a trust (*amanah*), and the scientist is morally accountable before God. Discovery must serve justice (*'adl*), balance (*mizan*), and mercy (*rahmah*), not power or profit.

View of Nature: Modernity views nature as an object to be mastered, an inert resource for human consumption. The Qur'an redefines nature as a sign (*ayah*) to be interpreted, a living mirror of divine wisdom. This hermeneutical approach transforms the scientist into a contemplative reader rather than a manipulator. Every natural process becomes a verse in the cosmic scripture (*Kitab al-kawn*), calling for reflection and humility.

Status of Knower and Ultimate Aim: In modern thought, the knower is a detached observer, autonomous and self-referential. The Qur'an, by contrast, defines the knower as a moral trustee (*khaliiah*), whose cognition entails responsibility toward creation. The ultimate aim of knowledge is divine nearness (*qurb ila Allah*), achieved through service, justice, and spiritual realisation -not mere material progress.

In sum, the table encapsulates a profound epistemic reorientation -from measurement to meaning, from utility to wisdom, and from self-reliance to divine consciousness. The Qur'anically-informed paradigm does not abolish science but redeems it, restoring harmony between intellect and revelation, matter and spirit, knowledge and morality. It calls humanity to reimagine science as a sacred act of reading the universe in the name of its Creator (*iqra' bi-ismi rabbika*; Q. 96:1), where the pursuit of *'ilm* culminates in *hikmah*, and *hikmah* in the remembrance of Allah.

17.10.6 The Future of Knowledge and the Return to Revelation

The Qur'an's epistemology offers not an alternative to science but its resurrection -awakening it from moral amnesia and metaphysical blindness. A Qur'anically-informed scientific paradigm recognises that true knowledge must unify observation with meaning, intellect with heart, and discovery with devotion.

The future of science, if guided by revelation, may reconcile human ingenuity with divine responsibility. It may once again transform inquiry into worship and invention into stewardship. The Qur'an's call to

“reflect” (*yatafakkarun*), “verify” (*fa-tahaqqaqu*), and “know” (*ta'lamun*) is ultimately a call to awaken the soul of civilisation-to see in every atom a sign of the Infinite.

Thus concludes Chapter 17, wherein the Qur'an and modern science have been juxtaposed not as adversaries but as stages of human awakening. The next step, in Part VI: Reconstruction of Islamic Epistemology in Contemporary Context, must elaborate how this integrated vision can reshape contemporary thought, education, and research -restoring knowledge to its sacred horizon where *'ilm* leads to *hikmah*, and *hikmah* to divine remembrance.