

## DOES SCIENCE OFFER EVIDENCE OF A TRANSCENDENT REALITY AND PURPOSE?

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In this paper, we elaborate on several crucial theological problems dealing with the role of science in providing some evidence for the existence of God and purpose in nature. It has become fashionable to eliminate notions of purpose and goal for the universe. Even many believing scientists ignore teleological considerations in their scientific work. In the Qur'anic view, however, God is the Creator and the Sustainer of the universe. He has created everything in measure and has decreed for it telos. In our view, modern science does offer some clues to the teleological aspects of our universe, as recent debates on anthropic principle suggest. Furthermore, some inferences from science can be used as a premise to construct philosophical arguments for the existence of God. Two theories have generated heated discussions about this matter: the theory of Big Bang and the Darwinian theory of evolution. We believe that empirical science can give us only a cognition of the works of God, but the deduction of God from His works is a matter of intellection or intuition.

*Keywords:* Theological problems; teleology; Qur'anic view of cosmos; modern science; anthropic principle; arguments from design; telos; Qur'anic epistemology.

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### **Introduction**

Modern science arrived in the Muslim world in the beginning of the nineteenth century. What affected Muslim intellectuals mostly was not science itself, but rather it was the transfer of various philosophical currents

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entangled with science that had a profound effect on the minds of Muslim scientists and intellectuals. Schools like Positivism and Darwinism penetrated the Muslim world and dominated its academic circles and had a noticeable impact on some Islamic theological doctrines.

### **Response of Muslim Scholars to Modern Science**

In the Muslim world, there were four kinds of responses to modern science.

(1) Some Muslim scholars rejected modern science as corrupt foreign thought, considering it incompatible with Islamic teachings, and in their view, the only remedy for the stagnancy of Islamic societies would be the strict following of Islamic teachings.

(2) Other thinkers in the Muslim world saw science as the only source of real enlightenment and advocated the complete adoption of modern science. In their view, the only remedy for the stagnation of Muslim societies would be the mastery of modern science and the replacement of the religious worldview by the scientific worldview.

(3) The majority of faithful Muslim scientists tried to adapt Islam to the findings of modern science; they can be categorized in the following subgroups: (a) Some Muslim thinkers attempted to justify modern science on religious grounds. Their motivation was to encourage Muslim societies to acquire modern knowledge and to safeguard their societies from the criticism of Orientalists and Muslim intellectuals. (b) Others tried to show that all important scientific discoveries had been predicted in the Qur'ān and Islamic tradition and appealed to modern science to explain various aspects of faith. (c) Yet other scholars advocated a re-interpretation of Islam. In their view, one must try to construct a new theology that can establish a viable relation between Islam and modern science. The Indian scholar, Sayyid Ahmad Khan, sought a theology of nature through which one could re-interpret the basic principles of Islam in the light of modern science. (d) Then there were some Muslim scholars who believed that empirical science had reached the same conclusions that prophets had been advocating several thousand years ago. The revelation had only the privilege of prophecy.

(4) Finally, some Muslim philosophers separated the findings of modern science from its philosophical attachments. Thus, while they praised the attempts of Western scientists for the discovery of the secrets of nature, they warned against various empiricist and materialistic interpretations of scientific findings. Scientific knowledge can reveal certain aspects of the physical world, but it should not be identified with the alpha and omega of knowledge. Rather, it has to be integrated into a

metaphysical framework—consistent with the Muslim worldview—in which higher levels of knowledge are recognized and the role of science in bringing us closer to God is fulfilled.

### **The Impact of Modern Science on Islamic Theology**

When we compare medieval science with modern science, we notice that they are different in several important aspects. This is especially noticeable in the case of some theological perspectives. When modern science penetrated the Muslim world, some Muslim scientists adopted western philosophical theological perspectives intact. Muslim philosophers and theologians, however, resisted the adoption of some doctrines which were considered to be harmful to basic Islamic teachings. Several crucial theological problems grappled with the role of science in proving the existence of God and purpose in nature.

#### *Teleological Explanation of the World*

For medieval scientists, every created thing had its especial place in the hierarchy of the created world, because it was created by a God who had a designed telos for the universe. The founders of modern science, however, ignored the notion of telos for the universe. Believing scientists did not deny the relevance of purpose to the created universe, but they believed that teleological considerations should not play a role in scientific descriptions. Weinberg's well-known statement is typical of their view:

The present universe had evolved from an unspeakably unfamiliar early condition, and faces a future extinction of endless cold or intolerable heat. The more the universe seems comprehensible, the more it also seems pointless.<sup>1</sup>

Currently, it is fashionable to eliminate the notion of goal to the universe. Thus, even many of the believing scientists ignore teleological considerations in their scientific work.

In the Qur'ānic view, God is the Creator and the Sustainer of the universe. He has created everything in measure and has decreed for it a telos. The creation is in truth, not for sport or vanity, and everything has a definite term (Q. 21:16; 38:27; 44:38; 46:3). The Qur'ān has made a distinction between the Creator, the design and the internal order of the created things on the one hand and their guidance on the other hand. The

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1. Weinberg, Steven (1977), *The First Three Minutes*, Basic Books, New York, p. 154.

direction that everything follows is not a result of its internal order. Rather, it is something beyond its orderly structure. The Qurʾān mentions a universal notion of purpose and direction for the created universe (Q. 20:50; 87: 2-3).

Fakhr al-Dīn Rāzī, in his celebrated commentary on the Holy Qurʾān, has elaborated on the distinction between the creation of a thing and its sense of direction.<sup>2</sup> This sense of direction is a mysterious dimension present in everything, directing it toward its proper God-assigned role. One sees reference to it in the Qurʾān for the human beings, animals, plants and inanimate objects: *The Lord of all Being Who created me, and Himself guides me* (Q. 26: 78); *By the soul and that which shaped it and inspired it to lewdness and god-fearing* (Q. 91: 6); *And your Lord revealed unto the bees, saying 'take into yourselves, of the mountains, houses and of the trees ... then eat of all manner of fruit, and follow the ways of your Lord ...'* (Q. 16: 68); *And the stars and trees bow themselves* (Q. 55: 6); *...and revealed its commandments in every heaven* (Q. 41: 12).

Thus, every creature receives a mysterious kind of guidance after its creation. It is like an automobile which has a material design, but it needs a guidance to accomplish its assigned role. This sense of direction is rather evident in humans, and to a certain extent one can identify it with instincts in animals. But at this stage of the development of science it is not noticeable in the inanimate world. However, it is very naïve to deny it on the basis of our present knowledge of the physical world.

The Qurʾān mentions that everything in the world glorifies God, and that we do not understand the act of glorification (Q.17: 44; 62: 1). Rūmī, the Persian poet and mystic of the thirteenth century, eloquently expressed this point in spiritual couplets:

*All particles of the world say to you each day and night:  
'We have hearing and sight and are conscious;  
though with you strangers we are mute'.  
Go from the world of inanimate into the world of spirit; then  
you hear the loud noise of the particles of the world.  
The glorification of God by inanimate objects will become  
evident to you; the doubts suggested by [false] interpretation  
will not carry you away.*<sup>3</sup>

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2. Fakhr al-Dīn Rāzī (reprn. n.d.), *al-Tafsīr al-Kabīr*, Dār Iḥyāʾ al-Turāth al-ʿArabī, Beirut. vol. 31, pp. 138-40.

3. Rūmī, Jallāl al-Dīn, Books III & IV, tr. by R.A. Nicholson (1982) as *The Mathnawi of Jalāl al-dīn Rūmī*, Gibb Memorial Trust, Cambridge, p. 58.

According to the Qurʾān, we originate from God and we shall return to God, and everything is created to worship God in its proper way (Q. 51: 56; 62:1). If we assume a purpose for the creation, then the evolution of created things is not without telos. In the Qurʾānic outlook, the end of this motion is in the Hereafter, where everything meets its proper destination and the pious feel the presence of God. If there were no Hereafter, the creation would be in vain: *Did you think that We created you only for sport and that you would not be returned to Us?* (Q. 23: 115)

One might argue that Hereafter is meaningful only for humans and possibly animals and that the universality of the sense of direction is disputable. In response, one could say that it is naïve to deny non-humans a telos only on the basis of our present knowledge of the physical world. Furthermore, even if one assumes that anthropic coincidences in modern cosmology are indications of the special status of humanity and that the rest of the universe serves as a ground for the development of human beings, one can still infer the presence of purpose in the whole universe. As Paul Davies puts it:

The success of human science and mathematics and the anthropic fine-tuning that is apparently a prerequisite for the very existence of human like beings strongly suggests that our existence is linked into the laws of the universe at the most basic level. Far from being a trivial and incidental byproduct of random and meaningless physical processes, it seems that conscious organisms are a fundamental feature of the cosmos. ...Clearly, the universe could have been otherwise. The fact that it is, as it is, and that its form is linked so intimately with our own existence, is powerful evidence that the universe exists for a purpose, and that in our small yet significant way, we are part of that purpose.<sup>4</sup>

The Holy Qurʾān is very explicit in attributing telos to the created universe and so Muslim theologians have never ignored teleological considerations, yet the silence of modern science about this point has not affected their view, although it has had a silencing effect on Muslim scientists.

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4. Davies, Paul (1994), “The Unreasonable Effectiveness of Science” in Templeton, John Mark (ed.), *Evidence of Purpose*, Continuum, New York, p. 56.

The negligence of teleological considerations by the scientists of the last few centuries is partly due to their heavy involvement with mathematical manipulations and the predictive aspects of science and partly due to the false assumption that questions of teleological nature hinder the development of science. We don't believe that there is any inconsistency between holding a belief in a purposeful world and being a creative scientist.

If we don't see telos for the created universe in the findings of modern science, it is because the philosophical framework in which contemporary scientists express their scientific work does not accommodate questions of teleological nature. Walter R. Hearn maintains that:

the self-limitation of science to examining only secondary or mechanical causes should signal immediately that science has no capacity to deal with the existence—or non-existence—of a purpose behind the universe ...In my opinion, to say anything at all about ultimate purpose requires stepping outside the normal boundaries of science, even though individuals who deny divine purpose may claim that their argument rests on “what science tells us”. The irrelevance of certain questions within science does tell us something, however, about the limited relevance of science to some of the deepest human concerns.<sup>5</sup>

Nevertheless, we think that there are some clues to the teleological aspects of our universe in modern science. One has to be perceptive to discover such clues. For example the notion of purpose and design of the created universe has recently attracted much attention to the so-called anthropic principle, according to which the physical constants of nature are so-finely tuned that if they were slightly different, carbon-based life could not develop and we should not be here. Anthropic coincidences call for an explanation, and there have been several explanations. In the monotheistic religions one can take them as an indication that God planned the universe with human beings in mind. Other explanations carry heavy metaphysical assumptions which, in my view, are much more involved than the explanation in terms of an *a priori* plan by an intelligent designer. For example, the most serious alternative to the design hypothesis is the many-worlds hypothesis, in which one postulates infinite universes to explain the order of just one universe.

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5. Ibid. pp. 63-4.

### Science and the Existence of God

In the Holy Qurʾān, natural phenomena are referred to as signs of God, and it is implied that by understanding these signs, one can attain the cognition of the Lord of the signs: *And of His signs are the creation of the heavens and the earth and the diversity of your tongues and colors. Surely there are signs in this for the learned (Q. 30: 22).*

In the Qurʾān, one finds frequent reference to the creation, the constituents of objects, the thoroughness and orderliness of the creation and the harmony between man's existence with the rest of the physical universe (Q. 2: 29; 27: 88; 29: 20; 86: 5). The Qurʾān quotes the prophet Abraham arguing from some phenomena of nature for the existence of God (Q. 6: 75-9). The Qurʾān also argues from the harmony of the creation for the unity of God (Q. 21: 22). The Qurʾān even asserts that the study of signs of God in nature (natural phenomena) can eventually bring us closer to God (Q. 41:53). The argument from the presence of order and harmony in the creation for the existence of God, the so-called argument from design, is present in both the Qurʾān and the Bible, and has been used frequently by the scholars of all monotheistic religions for this purpose.

Eminent Muslim scientists of the past considered the study of nature as a way of seeing the signs of God in the universe. Al-Bīrūnī, a distinguished Muslim scientist of the eleventh century, stated:

When a person decides to discriminate between truth and falsehood, he has to study the universe and find out whether it is eternal or created. If somebody thinks that he does not need this kind of knowledge, he is, however, in need of thinking about the laws that govern our world, in part or in its entirety. This leads him to know the truth about them, and paves the way for knowing the Being Who directs and controls the universe, and for knowing His attributes. This is, in fact, the kind of truth that God enjoyed His knowledgeable servants to search for, and God spoke the truth when He said, "... *And reflect upon the creation of the heavens and the earth [saying]: 'Our Lord You have not created this in vain [Q. 3: 191].'*" This verse contains what I explained in detail, and if man works according to it, he can have access to all branches of knowledge

and cognition.<sup>6</sup>

The same point is made by the founders of modern science. Robert Boyle emphatically stated:

When with bold telescopes I survey the old and newly discovered stars and planets...when with excellent microscopes I discern nature's curious workmanship; when with the help of anatomical knives and the light of chymical furnaces I study the book of nature...I find myself exclaiming with the psalmist, How manifold are thy works, O God, in wisdom hast thou made them all.<sup>7</sup>

Muslim scholars thought that the study of natural phenomena can disclose the interrelation between various parts of the universe and the unity behind the world of multiplicity, and this may lead one to the unique Creator.

With the infiltration of empiricist ideas into the Muslim world, some Muslim scholars asserted that even in theology one has to follow the methods of empirical science and that the only way to the cognition of God is the study of nature through the methods of regular science. The reference of the Qurʾān to natural phenomena was taken as an argument for the sufficiency of the empirical science. Some even identified the Qurʾānic wisdom with the positivistic philosophy.<sup>8</sup> While we, too, agree that experiment and observation are indispensable tools for understanding nature, we don't believe that our understanding of nature is merely a matter of senses. Intellectual exercise over the findings of science is needed before one can get a picture of the physical world or one can get a theistic interpretation of our universe. We believe, as did the late Persian philosopher Murtaḍā Muṭahharī, that empirical science can give us only a cognition of the works of God, but the deduction of God from His works is a matter of intellection or intuition.<sup>9</sup> To substantiate this claim, we argue on the following grounds:

(a) Science can at most inform us of some attributes of God, such as

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6. al-Bīrūnī, Abū Rayḥān, *Kitāb Tahḍīd Nihāyāt al-Amākin li-Taṣḥīḥ Masāfāt al-Masākin*, Persian trans. by A. Aram (1352 SH), Tehran University Press, Tehran, pp. 3-4.

7. Johnston, A. (ed. 1974), Robert Boyle's 1605 *The Advancement of Learning*, Clarendon Press, Oxford, p. 42.

8. Tabbarah, A. (1982), *Rūh al-Dīn al-Islamī*, Dar al-ʿilm li'l-Malayeen, Beirut, p. 270.

9. Muṭahharī, Murtaḍā (1373 SH), *Collected Works*, Sadra Publications, Tehran, p. 893.



knowledge, power, etc. But it can not lead us to an Omniscient, Omnipotent God. How can we get from the study of a limited part of the creation to an Eternal Transcendent God? The jump from finite to infinite requires an intellectual exercise. Even in science, we encounter the same situation. The laws of physics and chemistry are not direct results of experimental facts. Rather, they are deduced from the latter through an intellectual effort. Thus, for instance, matter itself is recognized through intellection, because experiments in physics or chemistry inform us only about the properties of matter.

- (b) The argument from design is neither a purely philosophical argument nor it is a merely empirical one. It has an empirical component and a philosophical one. It is the neglect of this fact that has caused confusion about this argument or has resulted in its refutation. Thus, Hume disputed the universality of this argument. In his view, this argument has an empirical character, and so it can't possibly prove an Omniscient and Omnipotent Transcendent God. What Hume missed was the fact that an empirical argument works when we observe an effect and try to find its causes by experimentation. It can't possibly work when are dealing with both natural and supra-natural. The real value of the argument from design is that it takes us to the frontier of science and metaphysics. It gives a hint that there is a supra-natural reality. But, whether that reality is one or more, is finite or infinite or has finite power or infinite power is beyond this argument. These aspects need separate arguments.
- (c) The opposition between theistic and atheistic interpretations of physical processes, especially those related to the origin and formation of the universe, is due to their different metaphysical presuppositions. Metaphysical assumptions are often deeply embedded in our interpretation of physical processes, and inattention to them could result in conflict.

It is because of metaphysical presuppositions of this argument that many scientists don't deduce God's existence from their study of natural phenomena, and insist on their atheistic positions, no matter what they observe from the wonders of nature. The Qur'ān, too, reminds us that the knowledge of natural phenomena, that is science in our modern terminology, can bring one closer to God, if one already has some faith in God. The study of nature and its secrets and beauties then fortifies one's

faith: *Say: Behold what is in the heavens and the earth; but neither signs nor warnings avail a people who do not believe* (Q. 10: 101). It is interesting that the Qur'ānic verses that invite people to ponder over the mysteries of creation end with phrases like *surely, in this there is a sign for men of understanding* (Q. 6: 67) and *surely, in this there is a sign for thoughtful people* (Q. 16:13).

In short, the study of nature through the methods of empirical science can lead to God, if science is interpreted within a proper metaphysical framework in which the limits of science and the existence of higher levels of knowledge are recognized.

### **God and Creation**

The problem of the creation of the universe has always been related to the problem of the existence of God, in one way or another. In the medieval ages, it was used in various ways as a premise in philosophical arguments for the existence of God. But in the last two centuries, it has been the subject of a scientific proof of the existence of God. Two theories have generated heated discussions about this matter: the theory of Big Bang and the Darwinian theory of evolution.

#### *(i) The Big Bang Theory*

Einstein's equations of general relativity have various solutions. Among them are those that imply that everything in the universe is both expanding and decelerating. If this is the case, then the present universe is the aftermath of an explosion. Thus, it has had a beginning, and so there must be a Prime Cause. The observations of Edwin Hubble in 1930's indicated that the galaxies indeed expanded in the way predicted by general relativity. Some astrophysicists, including H. Bondi, T. Gold and F. Hoyle, in their steady state theory, attempted to avoid the beginning by suggesting continual creation. Some other physicists, including de Sitter, Tolman and Dicke proposed an oscillating universe, which goes through infinite cycles of explosion and implosion. Neither the steady state theory nor the models of oscillating universe have overcome the problems confronting them. Thus, they are not popular anymore. The works of S. Hawking, G. Ellis and R. Penrose in the late 1960's showed that if Einstein's equations of general relativity are valid and certain reasonable conditions are met, then space and time must have an origin coincident with that of matter and energy. This is taken by some believing physicists to be a strong argument for the creation by God.

In the last thirty years, some cosmologists have attempted to circumvent the notion of beginning (that is, the initial singularity) by proposing that

the universe is a quantum fluctuation arising from a state of vacuum containing quantum fields. But their quantum vacuum is far from an absolute vacuum. Certain laws and fields as background must be assumed. On the other hand, J. Hartle and S. Hawking, by applying quantum mechanical principles to the Big Bang and making use of the concept of imaginary time, attempted to show that space-time is finite but has no boundary. Thus, by negating creation in time they attempt to make God's existence superfluous. Hawking says that "so long as the universe had a beginning, we could suppose it had a Creator. But, if the universe is really completely self-contained, having no boundary or edge, it would have neither beginning nor end; it would simply be. What place then for a creator?"<sup>10</sup>

These attempts leave some questions unanswered. Where do the laws of physics come from? Why are these laws comprehensible to us? Why is there a universe in which such laws apply? Furthermore, the assumption of no beginning in time does not make the universe self-explanatory and independent of God. Paul Davies states:

the fact that the universe might have no origin in time does not explain its existence, or why it has the form it has. Certainly it does not explain why nature possesses the relevant fields (such as the creation field) and physical principles that establish the steady-state condition.<sup>11</sup>

A mistake often made is to think that for the universe to have a creator, there must be an initial time for the creation of the universe. Muslim theologians believed that only God is eternal. Everything else is created in time. Muslim philosophers, however, believed that creation in time is a property of the material world, where as supra-natural realities, as well as principles and universals, are eternal. In the view of theologians, "uncreatedness" in time meant not needing a Creator. Thus, the whole universe is created in time. In rebutting theologians' view, Muslim philosophers pointed out that a thing's need or lack of need for a cause depends on whether it is a contingent being or a necessary being respectively, and it has nothing to do with its creation in time or its eternity. Muslim philosophers' argument was based on God's absolute effulgence and beneficence: it is not acceptable to think of God's

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10. Hawking, Stephen (1988), *A Brief History of Time*, Bantam, London. p. 41.

11. Davies, Paul (1992), *The Mind of God*, Simon & Schuster, London, p. 56.

emanation and beneficence as terminating at a definite instant. Thus, God has caused an eternally created universe. According to these philosophers, creation simply means complete dependence of everything upon God, that is the dependence of the created on what is necessary by itself. The concept of origin in the case of creation refers to the causal origin rather than the temporal origin. In Mullā Ṣadrā's theory of trans-substantial motion, every being has a graded reality which retains its identity despite its gradation. So the whole universe is continually in creation, everything is getting a new existence from God at every moment. The dependence of the world on God is not limited to any specific instant. Mullā Ṣadrā states that:

in general, every material object, whether it is the material of the stars or the elements, whether soul or body, constantly acquires new identity and personality and its existence is never fixed ...the proof of the principle indicated above is derived from the idea that nature is in a state of ever-renewing itself ... and when the Creator created it, He created its self renewing essence. Its self-renewal, however, is neither the creation of a creator nor the act of an agent ... the maker, in virtue of His durability and endurance, created this creature which is self-renewal in terms of its essence and identity.<sup>12</sup>

(ii) *Darwinian theory of evolution*

Another confusion concerning God and the creation of the universe relates to Darwinian theory of evolution. This theory challenged the fixity of species and claimed to explain the evolution of species in terms of natural selection and the survival of the fittest. According to Darwinism, life developed out of random processes and there was no plan for the creation of species. The order that has emerged in nature is the result of a wedding of chance and necessity. G.G. Simpson stated that "man is the result of a purposeless and materialistic process that did not have him in mind. He was not planned."<sup>13</sup> What this theory achieved was only the suggestion of a fully naturalistic mechanism by which the evolution of species can occur. But some evolutionists claimed that by challenging the immutability of species and the replacement of sudden acts of creation of species by a slow

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12. Ṣadrā, Mullā, *Kitāb al-Mashā'ir*, tr. by Morewedge, Parviz (1992) as *The Metaphysics of Mullā Ṣadrā*, The Society for the Study of Islamic Philosophy and Science, New York, pp. 80-1.

13. Simpson, George G. (1949), *The Meaning of Evolution*, Yale University Press, New Haven, p. 344.

evolutionary process, they had eliminated the need for a creator. What they missed was the fact that by finding the mechanism of something one does not eliminate its having an inventor. The belief in an evolutionary mechanism for the emergence of species does not negate the idea of Divine creation. One has to explain the emergence of species, whether they are brought into being gradually or through a sudden creation. As Abu Majid Muhammad Rida al-Najafi al-Isfahani, an eminent Muslim scholar of the early twentieth century, pointed out, the theory of evolution is not against theism. It is only the materialistic interpretation of this theory that negates God. In his view, there is nothing in the Qur'an or the Islamic tradition to conclude whether all species were created separately or appeared through evolutionary random processes. In either case, we are dealing with God's activity. "What difference would it make if the fathers of camels were camels or frogs sing in the water, or the Grandfather of an elephant was elephant, or a bird flies in the air, since the evidence in all cases is obvious—God's work."<sup>14</sup> Nevertheless, al-Isfahani believed that what distinguishes humans from animals is their soul, and there is a clear difference between human mind and animal instincts.

### Conclusion

All monotheistic religions view the study of nature as an attempt to see the works of God. This outlook was prevalent during the medieval period. The metaphysical framework accommodating the science of that era could provide a theistic interpretation of the universe. The founders of modern science shared this view. But, with the rise of the mechanistic interpretation of the universe and the prevalence of the empiricist philosophy, science divorced itself from metaphysics and played the role of a dominant ideology. The first half of this century witnessed the peak of the eclipse of metaphysics in the West.

Modern science, as it is fashioned now, does not need to hypothesize God. Its normal enterprise is to explain natural phenomena without any appeal to supra-natural causes. Even many believing scientists ignore supra-sensible realities in their study of nature. It is assumed that normal science is sufficient for the explanation of all natural phenomena. Science, however, can lead one to God, if four points are recognized: First of all, science acquaints us with the character of some dimensions of the universe and not its totality. Secondly, science cannot answer our ultimate questions, like "Where did the universe come from?" and "What do we do here?"

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14. Ziadat, Adel A. (1986), *Western Science in the Arab World*, Macmillan Press, London, p. 97.

Thirdly, science needs a metaphysical framework which can justify its success and can give meaning to the world, and which admits supra-sensible realities. The fourth point is that empirical science, by its very nature, cannot directly lead one to God, and whatever can be described by science cannot be God. If these considerations are taken into account, then science can fortify one's belief in God and in a purposeful universe created by an Omniscient, Omnipotent God.

In the words of Pope John Paul II:

To desire a scientific proof of God would be equivalent to lowering God to the level of the beings of our world, and we would therefore be mistaken methodologically in regard to what God is. Science must recognize its limits and its inability to reach the existence of God: it can neither affirm nor deny his existence.

From this, however, we must not draw the conclusion that scientists in their scientific studies are unable to find valid reasons for admitting the existence of God. If science as such cannot reach God, the scientist who has an intelligence the object of which is not limited to things of sense perception, can discover in the world reasons for affirming a Being which surpasses it. Many scientists have made and are making this discovery.

He who reflects with an open mind on what is implied in the existence of the universe, cannot help but pose the question of the problem of the origin.

Instinctively, when we witness certain happenings, we ask ourselves what caused them. How can we not but ask the same question in regard to the sum total of beings and phenomena which we discover in the world?<sup>15</sup>

If the empirical science is augmented by an underlying metaphysical framework that can accommodate all levels of knowledge and all domains of human experience, then we can expect the science to become a ladder that can elevate one to the frontier of physical and metaphysical, where one can reach the state described by the Holy Qur'<sup>3</sup>ān: *In the creation of the heaven and the earth, and in the alternation of night and day, there are signs for the people of sense; those that remember Allah when standing, sitting, and lying down, and reflect on the creation of the heavens and the earth [saying]: 'Lord, You have not created these in vain. Glory be to You.'* (Q. 3: 190-1)

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15. *L'Observatore Romano*, July 15, 1985.