


Evaluation of the Interaction Between Science and Metaphysics in Theism

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Article Info	Abstract
<p>Article type: Research Article</p> <p>Article history: Received 30 January 2024 Received in revised from 18 February 2024 Accepted 25 March 2024 Published online 05 April 2024</p> <p>Keywords: Empirical Science, Theoretical Philosophy, Theology, Nature, Method.</p>	<p>Since arguments for the existence of God are deeply rooted in metaphysics, the separation of the empirical sciences from theoretical philosophy has made the defense of theism increasingly challenging for Western theologians and scientists. Some have turned to empirical methods to support either theism or atheism. However, empirical approaches—when isolated from metaphysical inquiry—are insufficient for addressing theological issues.</p> <p>This study, employing a descriptive-analytical method and a philosophical approach, argues that in order to defend theism effectively, it is essential to revive the Aristotelian classification of the sciences within theoretical philosophy, based on their respective subjects and methods. Such a revival would reaffirm the relevance and fruitfulness of metaphysics, and preserve theology’s ability—by virtue of its subject matter and methodology—to offer a robust philosophical defense of theism, as it has historically done.</p> <p>The study concludes that efforts to strictly align scientific theories with sacred texts, to dismiss empirical science altogether, or to rely solely on empirical theories in defending theism are not methodologically sound or beneficial for contemporary theology. Instead, a meaningful dialogue between empirical sciences and theology, guided by metaphysical insight, is required.</p>
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Introduction

Initially, humans had no source for contemplating the external world other than the perceptible entities surrounding them. Accordingly, the ancients considered knowledge of the world achievable within branches of theoretical philosophy, one of which was physics (in contemporary terms: empirical sciences). Due to the importance of empirical science in natural theological arguments, there was a time when acquiring empirical knowledge was customary before engaging in theological discussions.¹ Moreover, since “belief” is often imitative and devoid of critical reflection, transforming belief into knowledge and knowledge into faith necessitates an essential interaction between metaphysics and empirical science to achieve certain knowledge of the external world and thereby infer the existence of God. Based on this necessity, Mulla Sadra criticized theologians for entering the realm of intelligibles without understanding perceptibles, engaging in reasoning without mathematical knowledge, and discussing theology without familiarity with physics². Furthermore, there was a period when philosophy, physics, astronomy, and mathematics prominently featured in theological curricula, prompting non-specialist audiences to question the relationship between theology and empirical sciences and why empirical topics were included in theological discourse.

Today, questions arise as to whether God can be proven solely through purely empirical methods or whether a constructive interaction between empirical science and metaphysics is required in theological matters. In other words, how can one infer the existence of God solely from scientific findings, and can science, as an independent perspective, suffice to prove God’s existence, or does empirical science necessarily require metaphysics in this endeavor?

If we speak solely based on the general principles of empirical science, scientists agree that "nature proceeds according to the operation of natural agents." However, if the concept of "God" refers to an entity within this material world, that entity cannot be the creator and originator of nature and its relations; because it would not differ from other beings in its dependence on natural causal agents. From the perspective of both theists and atheists, this is the simplest and most acceptable philosophical argument on which consensus can be reached. Perhaps based on this point of agreement, an explanation for proving God's existence through the interaction of empirical science and theology can be offered.

Accepting the above simple and acceptable argument, one might respond to the aforementioned questions by stating that the claim of proving God's existence within the methodological scope of science is illogical; because an atheist scientist can consider nature limited to existing natural relations without the need for a transcendent entity called "God."

¹ Morteza Motahhari, *Collected Works of Martyr Professor Morteza Motahhari*, vol. 26 (Tehran: Sadra, 2011), 355.

² Sadr al-Din Muhammad ibn Ibrahim Qavam Shirazi (Mulla Sadra), *Al-Hikmah al-Muta’aliyah fi al-Asfar al-Aqliyyah al-Arba’ah*, 3rd ed., vols. 1 & 2 (Beirut: Dar al-Ihya’ al-Turath al-‘Arabi, 1981), 363

Therefore, it should not be expected that any scientist will succeed in discovering "God" solely within the confines of the scientific method.

However, another important set of questions arises: how can one, relying solely on rational argument and without any empirical science, realize the existence of a causative agent beyond natural causes? And in this case, how is the independence and validity of science preserved? One might answer that metaphysics and theology based on it can independently prove God's existence, while the independence and validity of empirical science remain confined to empirical matters.

In any case, these two sets of questions provide the basis for the present study to examine the relationship between physics or empirical science and metaphysics-which today is highly controversial-and then to investigate the cause and manner of interaction between contemporary empirical sciences and theology in theism.

In an era when science tends toward eliminating metaphysics, and some scientists even consider ontology possible only through the scientific method, it is necessary to validate metaphysics and clarify its application in empirical science, thereby opening a path for its use in theology so that belief-based teachings, especially theism, can still be defended by rational methods.

The hypothesis of the present research is that by emphasizing the distinction of sciences in terms of "method," method can be considered appropriate to the subjects of sciences, and the interactive domain of metaphysics and empirical science can be defined; thus, excluding such interaction in proving or refuting God's existence is unscientific. Indeed, the ever-changing events in the world cannot be regarded as separate from general explanations of the world; because knowledge of worldly events is not possible without a general perception of the world, and hence metaphysics is the foundation of all human sciences, including empirical science. In this case, metaphysics is a science that precedes all others, even theology, because it is based on the comprehensive and fixed understanding of the principle of non-contradiction-a universal principle applied in every science, including theology and empirical science.

Regarding the topic of this study, besides the works of Western researchers (some of which have been cited here), articles have also been written in Iran¹. Among these, the present research

¹ "Among them: 'An Analysis of the Necessity of Interaction between Metaphysics and the Sciences' by Ali Moradkhani; 'The Relationship Between Metaphysics and Natural Philosophy' by Mohammad-Javad Rezaei; 'Evaluating the Mission of the Interaction Between Theology and Philosophy in the Present Era' by Tayebe Khosravi, Farah Ramin, and Ali Alah-Badashi; 'A Critique of the Scientific Naturalism Approach Regarding the Relationship Between Science and Metaphysics' by Seyed Mahdi Biabani; 'A Critical Examination of Moderately Naturalized Metaphysics' and 'The Possibility of Metaphysics as a Science of the Possible: A Defense of Metaphysics Against Radical Naturalism' by Hassan Amiri Ara."

attempts, with a critical approach, to address the interaction between empirical science and metaphysics and to evaluate its position in theism.

1. Historical Background of the Interaction between Science and Metaphysics

Logically, four types of relationships can be assumed between science and metaphysics to see which brings us closer to our intended concept, namely "philosophical theism." These assumptions have appeared throughout the history of human thought and have formed a rich background, which we summarize below:

1.1. The Priority of Metaphysics over Science

A brief look at the history of philosophy places Aristotle and his followers within this assumption. Aristotle believed that metaphysics is the foundation and inseparable pillar of all sciences, possessing epistemic priority over them. He paid attention to this intrinsic feature in his classification of the sciences. Following Aristotle, Islamic philosophers such as Al-Farabi and Avicenna also fall under this assumption.

1.2. The Impossibility and Elimination of Metaphysics

In the modern era—particularly with the rise of analytic philosophy in the 20th century—metaphysics lost much of its meaning and practical relevance. The former unity and coherence between metaphysics and empirical science gave way to a form of eliminative disjunction, leading to the prevalence of scientism.

However, this assumption can be challenged through the perspective of Alvin Goldman. He emphasizes a crucial principle in metaphysics: that a metaphysical understanding of the world is not possible without a corresponding innate cognitive capacity within the mind. This means that the very possibility of metaphysics depends on recognizing two essential features:

1. A feature of the mind, which allows humans to comprehend the general and universal relations that govern the entities of the world.
2. A feature of the external world, according to which these relations are not only real but also intelligible—they truly exist in the world.

Understanding how the mind is capable of grasping concepts such as causality, necessity, possibility, and time is of great importance, yet has often been neglected. In recent years, Goldman has brought cognitive sciences into conversation with metaphysics. He seeks to demonstrate how cognitive science and the mind's innate recognition of the world contribute to a metaphysical understanding of reality. His project is called *naturalized metaphysics*. Within this framework, he argues for the epistemic priority of metaphysics over empirical science and

defends the indispensability of metaphysics to scientific inquiry. Goldman maintains that the study of the mind is itself a branch of metaphysical investigation¹.

Since the mind plays a foundational role in the acquisition of knowledge, metaphysical understanding represents a relationship between the mind and the world. If, for example, the mind could not apprehend causal relations in a truth-conforming way, empirical science concerning the external world would never have emerged in the first place.

Thus, the main argument of philosophers who oppose the eliminative view is the epistemic precedence of metaphysics over empirical science. From their standpoint, it is essential to emphasize the mind's intrinsic capacity for metaphysical cognition—an awareness that enables science to comprehend the world through stable and universal metaphysical principles. Hence, metaphysics is not a purely a priori activity disconnected from the world; rather, its a priori nature signifies its epistemic priority.

Another critic of the eliminative view is George Bealer. He contends that philosophical inquiry about the world can be pursued independently of empirical data². (121). Moreover, in the case of conflict between science and philosophy, he argues that philosophy should take precedence.

1.3. The Priority of Science over Metaphysics

Today, many philosophers of science consider themselves naturalists and regard metaphysics as unnecessary. This view has especially gained momentum among analytic philosophers. These philosophers, even if they do not deny the possibility of metaphysics or its elimination, tend to naturalize it; meaning that metaphysics cannot go beyond empirical sciences and ultimately aligns with science. Ladyman and Ross represent this view. They argue that metaphysics as an a priori science is unreliable and impossible, and instead propose a form of "radical naturalized metaphysics."³ They consider this metaphysics, in terms of subject and method, aligned with empirical science and believe it can serve the goals of science.

1.4. The Independence of Metaphysics and Science

This assumption includes three different perspectives:

¹ Alvin Goldman, "A Program for Naturalizing Metaphysics, with Application to the Ontology of Events," *The Monist* 90, no. 3 (2007), 458.

² George Bealer, "A Priori Knowledge and the Scope of Philosophy," *Philosophical Studies* 81 (1996): 121.

³ James Ladyman and Don Ross, with David Spurrett and John Collier, *Every Thing Must Go: Metaphysics Naturalized* (Oxford: Oxford University Press, 2007), 1.

1.4.1. Metaphysics and Science Are Independent in Terms of Subject Matter

Philosophers like Paul argue that the issues metaphysicians address differ from those scientist's address, but the methods used in metaphysics and empirical science for developing and selecting theories are similar.¹ He regards the subject matter of metaphysics as the fundamental and general truths of the world, which are more basic than scientific findings.² He explains that metaphysics and empirical science can be understood as domains relying on modeling (providing permissible models for causal relations in the world) to develop and defend theories, both using a priori reasoning to infer the best explanations and select among empirical equivalents. The main difference lies in their subject matter and the role they assign to ordinary experience.³ Thus, these philosophers accept a subject-matter distinction between metaphysics and empirical science but consider their methods similar.

1.4.2. Metaphysics and Science Are Independent in Terms of Method

Philosophers such as Morganti and Tahko defend a form of "moderate naturalized metaphysics" and present a relatively naturalistic account of metaphysics. This view holds that empirical science and metaphysics can continue their activities without any methodological overlap, sharing only the subject matter. These scholars propose a mechanism for interaction between science and metaphysics based on this moderate model, exemplified in their case study on the "Standard Model of Fundamental Particles." According to them, metaphysical theorizing generally begins with empirical facts and then, through metaphysical and rational inquiry into possibilities, more speculative hypotheses are constructed. Some of these hypotheses can serve as interpretive bases for existing sciences and thus undergo a form of indirect empirical testing. This interaction with existing empirical sciences can also play a role in selecting metaphysical hypotheses. However, they note that such interaction need not always occur.⁴ They believe metaphysics and empirical science complement each other and have no priority relation,⁵ although metaphysics has a broader scope than science.⁶ Ultimately, these philosophers hold that metaphysics and empirical science are methodologically independent but similar in subject matter.

¹ L. A. Paul, "Metaphysics as Modeling: The Handmaiden's Tale," *Philosophical Studies* 160, no. 1 (2012), 1–29.

² Ibid: 5

³ L. A. Paul, "Metaphysics as Modeling: The Handmaiden's Tale," 9-13.

⁴ Matteo Morganti and Tuomas E. Tahko, "Moderately Naturalistic Metaphysics," *Synthese* 194, no. 7 (2017), 2575–2576.

⁵ Ibid: 2559.

⁶ Ibid: 2560-2561.

1.4.3. Metaphysics and Science Are Independent in Terms of Both Subject Matter and Method

It seems that perspectives that consider metaphysics entirely a priori and empirical science a posteriori and dependent on experience hold such an extreme separation between metaphysics and science. However, moderate philosophers like Lowe have also defended the assumption of "independence of metaphysics," as he considers the subject and method of metaphysics independent of empirical science¹, although such independence does not mean that if knowledge (here: metaphysics) is not a posteriori, it must be a priori. The a priori nature of metaphysics does not mean its independence from external reality and empirical science because in metaphysics, we also discuss these objective entities, with the difference that from a metaphysical perspective, these features are found in all beings universally and inevitably. It seems that the assumption that the subject of metaphysics is solely God and religious concepts leads philosophers to believe that metaphysics is unrelated to empirical science and the external world; whereas without this connection, a valid knowledge called metaphysics and, consequently, theology will not be formed². What Lowe insists on is the epistemological priority of metaphysics over science, not its purely a priori nature³. Thus, the a priori nature of metaphysics is possible only in terms of epistemology, not in terms of independence from knowledge of the external world. In fact, Lowe believes that until the existence and external entities and the constant relations between them are known, science will not be able to theorize about the external world; so, the metaphysical understanding of the world precedes the scientific understanding of it. Meanwhile, Whitehead believes that science and metaphysics are different aspects of a single activity of the human mind, and their interaction can elevate us to a higher level of knowledge⁴. In fact, he believes in the alignment of metaphysical and scientific knowledge of the world.

Considering the history of the interaction between science and metaphysics-as detailed above-we might say that the assumption that leads us to a rational metaphysics in accordance with the external world is the Aristotelian view and the view of Islamic philosophers (the priority of metaphysics over empirical science), which, in its modern interpretation, can be related to the views of Goldman and Lowe (who, while accepting the independence of metaphysics from empirical science, believe in the necessity of interaction between the two). Therefore, the present research will be based on this assumption.

¹ E. J. Lowe, *A Survey of Metaphysics*, vol. 67 (Oxford: Oxford University Press, 2002).

² "Westerners tend to refer to philosophy and theology as a 'discipline' rather than a 'science.' Here, we have used the term 'knowledge' for both, and naturally, we do not mean science in the strict sense of the word."

³ E. J. Lowe, "Grasp of Essences versus Intuitions: An Unequal Contest," in *Intuitions*, ed. A. R. Booth and D. P. Rowbottom (Oxford: Oxford University Press, 2014), 267.

⁴ Alfred North Whitehead, *Science and the Modern World* (New York: Free Press, 1992), 229.

2. The Necessity of Reviving the Interaction between Science and Metaphysics

Philosophy, in its essence, is a free knowledge and has no theological or religious description in itself, but it is the need of thought of every free human being; however, philosophy can help theology, and in fact, philosophy is the first knowledge that is used in theology due to the necessity of its rational method in proving religious beliefs¹

According to the Aristotelian classification of sciences, each science has propositions that discuss a specific topic. However, these sciences also have specific principles that, because they precede the subjects and predicates of the sciences, are not discussed in the sciences themselves and should be discussed in another science that precedes these sciences. The science that precedes all sciences is the same first philosophy, which is known as "metaphysics" among Aristotle's followers.² However, metaphysics and theology are not divided into each other in the classes of Aristotelian sciences because they do not have a single subject, but they have two-way interaction based on sharing the rational method. But just as theology once made philosophy subordinate to itself, and philosophy necessarily had to be freed from this subordination due to the priority of philosophy's knowledge over theology, now we are witnessing that theology has become subordinate to science, and this methodological intertwining among the sciences is leading to the inefficiency of theology and atheism.

Throughout history, developments in philosophical schools have not only influenced empirical sciences but have also manifested their effects in theology. In the present era, the need to revive metaphysics on one hand and the interaction between theology and metaphysics on the other is felt more seriously. To establish the validity of metaphysics, one can open the way for metaphysics in theology by emphasizing its intrinsic interaction with science.

For example, various theologians' perceptions of the "Big Bang," whether opposing or agreeing with sacred texts, are derived based on empirical methods; because according to the metaphysical foundations of science, the Big Bang cannot be considered the beginning of creation. On the other hand, some scientists' interpretation of the Big Bang as implying the absence of God enters the realm of philosophy and theology, since God is not the subject of science, and from a scientist's standpoint studying the material world, offering explanations beyond the scope of science constitutes a methodological transgression and overstepping of science's domain.

Also, by adhering to the scientific method, certain doubts arising in empirical sciences-such as "quantum indeterminacy"-which can only be discussed within the methodological interaction of empirical sciences and metaphysical foundations of science, remain free from theological

¹ Yahya Yathribi, *Analytical Critical History of Islamic Philosophy* (Tehran: Organization for Research Publications of the Institute for Culture and Islamic Thought, 2009), 73.

² Ibrahim Dadjou, *Metaphysics from the Perspective of Aristotle and Avicenna* (Tehran: Organization for Research Publications of the Institute for Culture and Islamic Thought, 2011), 77.

consequences and do not become challenges favoring atheism; because science itself is neutral regarding proving or disproving God's existence.

Moreover, modern biology, with the theory of "evolution" proposed by Darwin, Lamarck, Huxley, and other biologists, opened a new field of conflict between scientific data and the apparent meanings of sacred texts, placing theologians on a new path significantly different from that of their predecessors.¹

Following such developments, questions have arisen such as: Do scientific theories indicate how to explain the world and divine agency? How can empirical sciences, in interaction with theology, suitably explain God's agency in the world without conflicting with sacred texts? To what extent do empirical theories assist in epistemologically proving God's existence? And fundamentally, what is the role of science in theology, and how should theologians defend theism in interaction with empirical sciences?

Some Western scholars explain that one cause of incorrect explanations of the relationship between the world and divine agency lies in the separation of metaphysics from empirical sciences; because theology, for example, can philosophically seek to prove the compatibility of divine agency and evolution, rather than outright denying evolution or offering non-philosophical empirical explanations in defense of theism². Others believe that based on the metaphysical foundations of empirical science, "chance" may not be considered opposed to the design, providence, and teleology of the world³. In fact, these scholars do not deny teleology and design but view worldly events as dependent on natural and material agency based on chance. According to this view, theologians can, philosophically, link this natural explanation to the existence of God, rather than proving God's existence without a shared basis with science or attempting to refute chance in nature and empirical sciences; because the concept of chance is rooted in the scientific method and does not irreconcilably conflict with religious teachings⁴.

¹ Ian Barbour, *Science and Religion*, trans. Bahā' al-Dīn Khorramshahi (Tehran: Sharif University of Technology, 1983), 26.

² Brendan Sweetman, *Evolution, Chance, and God*, trans. Ali Shahbazi (Qom: Taha Cultural Institute, 2020), 160. Some may argue that human evolution, occurring over a long period of time with a precise and complex order, provides a stronger and more accurate indication of a design and order in the world, and thus the existence of God, than, for example, the creation of man from clay and the breath of life. The authors of this article do not believe in 'evolution' and in this paper, they simply address the perspective of some Western scholars regarding the interaction of theology with this hypothesis as a new possibility for theology. Some contemporary Muslim thinkers have refuted this view."

³ "Furthermore, the authors of this article do not believe in 'chance' and in this paper, they merely present the perspective of some Western scholars regarding the interaction of theology with this hypothesis as a new possibility for theology. The falsity of this hypothesis is evident from the standpoint of Islamic philosophy."

⁴ Jon H. Roberts, *Darwinism and the Divine in America: Protestant Intellectuals and Organic Evolution* (Notre Dame, IN: University of Notre Dame Press, 2017), 22.

Thus, these perspectives aim to create grounds for aligning empirical scientific findings with theology.

On the other hand, some Western thinkers explain that it is not necessary-as some monotheistic scientists or Western theologians try to argue-to say that God has programmed the world so that design and chance operate together¹, nor is it necessary in the "Intelligent Design" argument to deny chance in the material world system; rather, God can be proven based on accepted empirical scientific foundations. Essentially, intelligent design is not a philosophical argument but an imposition of a "belief" on empirical findings². Such views seek to harmonize empirical science and theism.

However, in our view, by strengthening the metaphysical foundations of empirical science, it can be demonstrated that causal agency always necessitates divine agency; because in interaction with divine philosophy, it can be understood that the reason for the effect's dependence on the cause is "existential poverty" rather than temporality³.

Thus, beings in the world (regardless of how they come into existence), based on the primacy and gradation of existence, are existentially poor and in need of a rich existence, which is "God," and this can be a very important possibility for theology in interaction with empirical science.

On the other hand, sciences are of two kinds: productive and consumptive. Productive sciences are usually the true sciences that legislate laws and have a theoretical aspect, directly addressing the knowledge of the external world and studying various aspects of beings; consumptive sciences are those that utilize the generalities and results of productive sciences⁴. A science may be productive in one respect and consumptive in another. Accordingly, theology needs metaphysics, and whatever occurs in metaphysics affects theology. Theology can systematically defend religious teachings through interaction with metaphysics. Also, in defending metaphysics, we must note that metaphysics and empirical sciences influence one another (or should do so).

Theology, in response to atheism arising from neglecting foundational and methodological principles in empirical science, can philosophically advance toward proving God and resolve doctrinal doubts. Neither the empirical sciences' approach to exclude metaphysics from the

¹ Brendan Sweetman, *Evolution, Chance, and God*, 299

² Barbara Forrest, "The Wedge at Work: How Intelligent Design Creationism Is Wedging Its Way into the Cultural and Academic Mainstream," in *Intelligent Design Creationism and Its Critics*, ed. R. Pennock (Cambridge, MA: MIT Press, 2001), 5.

³ Sadr al-Din Muhammad ibn Ibrahim Qavam Shirazi (Mulla Sadra), *Al-Hikmah al-Muta'aliyah fi al-Asfar al-'Aqliyyah al-Arba'ah*, 3rd ed., vols. 1, 181 & 2, 387

⁴ Abdolkarim Soroush, *Theoretical Contraction and Expansion of Sharia*, 13th ed. (Tehran: Sirat, 2014), 88 & Ali Rabbani Golpayegani, *Religious Knowledge from an Epistemological Perspective*, 2nd ed. (Tehran: Youth Thought Center, 2010), 95

realm of science is methodologically sound, nor is ignoring metaphysics by some theologians, especially Western scholars.

Rational religion is something philosophy can attain, and if religion is based on non-rational grounds without a universal way for all humans to understand it, it will effectively be considered mere superstition¹. The method of sciences is determined according to their subjects, and deviation from method is unscientific. Theology's subject is religious beliefs, and its appropriate method is mainly rational; therefore, in proving and defending religious teachings such as the existence of God and monotheism against atheists, the intra-religious (textual) method alone is not sufficient.

In theoretical philosophy, each science has a subject, method, and purpose, and the most important criterion determining method and purpose is the subject matter. Conflict arises where two sciences share subjects and study the same aspect of a subject. But if these three elements are precisely defined for each science and boundaries are set, the doubt about conflict disappears². Theology, as a science outside the branch of theoretical philosophy, is not a subdivision of any sciences within theoretical philosophy, but it can benefit from all branches of theoretical philosophy that examine various aspects of existence without conflict arising among them.

Thus, by presenting the types of theoretical philosophy and how theology benefits from them, the doubt about conflict between science and theology is resolved, and we understand why these three sciences once preceded theological discussions in theological texts.

In this interactive process, by determining the role and position of each science, confusion in subjects, methods, and purposes is avoided, primary and secondary aims of each science are identified, and productive and consumptive sciences each take their place. Where there is no shared subject between two sciences, such as science and theology, no conflict exists, and these two sciences interact through the reciprocal interaction of empirical science and metaphysics. Theology and metaphysics interact through their shared rational method, and theology, lacking a common subject and method with empirical sciences, will no longer address doubts in scientific atheism by empirical methods.

On the one hand, by committing theology to its subject, method, and purpose in proving the existence of God and interacting with metaphysics, all sciences-including empirical sciences-are tied to a more valuable ultimate goal; because studying the world under the assumption of God's existence yields different outcomes for the sciences compared to explaining the world without that assumption. Thus, theology, in interaction with metaphysics, not only gives

¹ Yahya Yathribi, *Analytical Critical History of Islamic Philosophy*, 9

² Ian Barbour, *Science and Religion*, 145

meaning to empirical sciences but also gains its own value and legitimacy in relation to these sciences, and is not considered opposed to them but rather complementary and meaningful to them.

Donald M. MacKay, discussing the conflict or distinction between science and theology, holds that "conflict" arises when a person believes that science and theology both attempt to provide unified explanations for the same subjects, whereas "distinction" occurs when one believes that science and theology seek to offer different explanations for different subjects. He suggests that we consider science and theology as disciplines that aim to present different explanations for the same subjects based on different methods and purposes¹. Barbour, rejecting the conflict between science and religion, believes that scientific knowledge seeks to understand the patterns governing the empirical world, while the purpose of religious knowledge is to prepare a person to encounter God; therefore, since there is a fundamental distinction between the subjects, methods, and aims of science and theology, no common ground remains for conflict, making conflict impossible between them². Thus, both thinkers attempt to show that no conflict exists between empirical science and theology.

However, this belief is subject to critique because although science does not conflict with religion, the two interact; religious knowledge can synergize with scientific knowledge in proving God's existence. Therefore, if no conflict exists, interaction is necessary. Moreover, the purpose of religion is realized when a scientific view of the world is linked to theological aims; since there is no guarantee that theology alone will not fall into atheistic explanations of the modern sciences. Thus, the purpose of sciences shifts from a materialist goal to a spiritualist one, and the most valuable fruit of the interaction between science and theology is achieving such a perspective in science.

In short, current doubts in scientific theories do not indicate scientific progress or theological modernization but rather methodological confusion; because empirical science has entered the methodological domain of theology, and theology has entered the methodological domain of empirical science. It seems that if commitment to the methods of sciences within theoretical philosophy based on the Aristotelian view and the interaction of theology and metaphysics is revived, there is hope that atheism in modern science will give way to theism.

3. The Position of the Interaction between Science and Metaphysics

As mentioned, by reestablishing the interaction between branches of theoretical philosophy on one hand and theology on the other, theologians today can defend religious beliefs, including the existence of God, from their previous standing. However, since empirical science may

¹ Michael Peterson et al., *Reason and Religious Belief*, trans. Ahmad Naraghi and Ibrahim Soltani, 2nd ed. (Tehran: Tarh-e No, 1998), 369.

² Ian Barbour, *Science and Religion*, 143.

initially seem unrelated to theology and thus interaction between them may appear inconceivable, questions arise such as: How can a connection be established between these two sciences? With current developments in empirical sciences, does theology still have a place to prove and defend religious beliefs? Or do the contemporary empirical explanations by some theistic scientists and Western theologians suffice to defend religious teachings?

On the other hand, to defend the intrinsic interaction between science and metaphysics, it is necessary to show that metaphysics is not necessarily and entirely an a priori science, but rather has epistemic priority over other sciences and is in fact a prerequisite for human sciences. What seemingly makes metaphysics an entirely a priori science is the basis of human understanding or the principle of non-contradiction, from which many metaphysical principles such as causality, contingency, potency and act, matter and form, etc., are derived. Mulla Sadra emphasizes the importance of this principle, stating that denying the principle of non-contradiction leads to sophistry and other propositions ultimately depend on it.¹ Nevertheless, it can be shown that metaphysics is not entirely a priori but only dependent on an intuition that is self-evident and foundational to understanding the world.

Based on a common essence in the classification of sciences, Aristotle placed theoretical philosophy as a general category for sciences and divided it into three distinct parts based on subject matter. He placed theoretical philosophy into three categories: first philosophy (theology in the broad sense, equivalent to metaphysics), middle philosophy (mathematics), and lower philosophy (physics)². According to Avicenna, sciences sharing a subject differ in the aspects and respects of that subject examined in each science³; thus, if metaphysics discusses material matters, its focus is on their existence and mode of being⁴; since existence is the first object of perception. The science of "being qua being" forms the basis of all sciences because existence cannot be separated from any entity, and their judgments always accompany this existence. Hence, all sciences require the common judgments of this fixed existence, which is why Aristotle named this science "first philosophy"⁵. However, this common understanding of existence is not possible without understanding the distinctions of the material world. Understanding these distinctions leads humans to discover the cause and reason for differentiation. Therefore, although eliminating this fundamental science may seem superficially possible, its real elimination from human understanding is impossible; that is, science in general has an inseparable connection with metaphysical foundations, regardless of

1 Sadr al-Din Muhammad ibn Ibrahim Qavam Shirazi (Mulla Sadra), *Al-Hikmah al-Muta'aliyah fi al-Asfar al-'Aqliyah al-Arba 'ah*, 190.

2 Aristotle, *Metaphysics*, trans. Hassan Lotfi (Tehran: Tarh-e No, 2020), 1004a

3 Ibn Sina. *The Demonstration of The Healing*, trans. Mehdi Ghavam Safari (Tehran: Fekr-e Rooz, n.d.), 216.

4 Ibn Sina, *he Healing (Al-Shifa) – The Demonstration (Al-Burhan)*. Introduction by Ibrahim Madkur. Vol. 1. (Qom: Publications of the Library of Ayatollah al-Uzma al-Mar'ashi al-Najafi, 2025a), 15.

5 Aristotle, *Metaphysics*, 1003 a.

any individual scientist's beliefs, because science fundamentally does not arise without metaphysical assumptions and foundations. It is true that scientific study of the material world does not necessarily require knowledge of the transcendent, but metaphysics, before being a tool in theology for proving God's existence, is a fundamental factor in discovering nature. What is evident is the concealment of this intrinsic interaction by some Western scientists and theologians.

Theology and metaphysics are distinct because the subject of metaphysics differs from theology's subject. Metaphysics studies being qua being, while theology studies God or a being separate from matter. Therefore, metaphysics is a science free from any doctrinal orientation. Nevertheless, these two are (or should be) in interaction. Science and metaphysics differ only in generality because they study being from two different respects: science studies material beings, and metaphysics studies being absolutely. Without shared subject matter (albeit in different respects), interaction between the two would be impossible. In fact, these two sciences do not arise without understanding the independent essence of beings, and what distinguishes them as two sciences are the specific methods Aristotle assigned to them based on their subjects. Accordingly, the subject of first philosophy is the common factor uniting the sciences; because in all branches of science, this single subject serves as the subject for scientific issues, and their union forms a unified science¹. Hence, first philosophy encompasses the subjects of all sciences, meaning every natural object first exists, and then its various aspects are studied in different empirical sciences. Without this unifying genus, sciences would be scattered with no relation or interaction among them. Therefore, the interaction of empirical sciences and metaphysics is established through their shared subject, which is being as the category of these two sciences; since these two study real external beings by two different methods. Thus, the subject of metaphysics is not an imaginary matter that renders it unscientific, but a fully methodical knowledge like other sciences.

Based on this, it should be said that since a comprehensive philosophy is necessarily required for explaining the world and providing philosophical proofs for religious beliefs, and empirical sciences alone are incapable of proving the existence of God, theology needs the interaction of all types of theoretical sciences before utilizing empirical sciences; otherwise, theology will not achieve a complete worldview.

Here, attention must be drawn to the necessity of focusing on "Essence" and "Essentialism" in modern empirical sciences; because realist science forms knowledge of anything through knowledge of its essence². According to Aristotle, accidents have no independent essence

¹ Ibn Sina, *he Healing (Al-Shifa) – The Demonstration (Al-Burhan)*, 13

² Aristotle used the terms "essence" and "substance" in two distinct senses: first, as *whatness* or "quiddity" (i.e., essence as definition or nature), and second, as the *reality* that actually exists (cf. Aristotle, *Categories*, 2a16–18; Aristotle, *Metaphysics*, 1017b11). Muslim philosophers such as Avicenna and Mulla Sadra also distinguished between these two meanings. Mulla Sadra explicitly uses "essence" (*dhāt*) in the sense of "that which is said in

because accidents essentially do not exist without an essence¹. In fact, this very essence, regardless of its characteristics, is the factor in understanding the world. Therefore, if essences did not exist in the external world, our perception would not be actualized; that is, the principle and foundation of perceiving the external world is rooted in the distinction of essences.

Ellis also believes that the best way to explain the existence of natural necessities is to assume that they have real existence. Empirical propositions are possible, a posteriori, true, and falsifiable; thus, if Hume and Kant were correct in claiming that what is necessary must be a priori and what is a posteriori must be possible, a difficult situation would arise regarding the status of natural laws: if natural laws are a posteriori, then they are possible; but if they are necessary, then they are not a posteriori.² However, according to essentialism, necessity should be attributed to the essence of things, meaning that the essence determines necessity. Essentialism is a metaphysical discussion, not empirical science; therefore, considering the necessity of attention to essence and essentialism in empirical sciences also clearly reveals the necessity of interaction between empirical sciences and metaphysics.

One of the factors contributing to the spread of atheism in Western empirical sciences is the avoidance of interaction with philosophy and, on the other hand, scientists' perception of the unprovability of metaphysics and their tendency to use empirical methods in proving and denying God. Nowadays, theoretical philosophy has lost its status and position, and theologians, faced with doubts arising from empirical sciences, use empirical methods to prove God's existence, while atheist scientists also use empirical methods to promote atheism under ontological naturalism, thus steering human societies toward materialism and scientism.

Just as empirical sciences are now considered premises and foundations for compiling an efficient metaphysics, empirical sciences themselves greatly need this codified science (metaphysics).

Lowe is one philosopher who opposes Kantian philosophy and supports metaphysics, explaining the possibility of metaphysics in his works and denying that metaphysics is an a

response to the question 'what is it?'" as referring to the *quiddity* (*māhiyyah*) of a thing, and "essence" in the sense of "that by which a thing is what it is" (*mā bihi al-shay' huwa huwa*) as referring to the *identity* or *reality* of a thing (cf. Avicenna, 1404a, vol. 1, p. 28; Ṣadr al-Muta'allihīn, 1981, vol. 2, p. 3).

Therefore, the concept of *essence* (*dhāt*) is used in two senses: 1. In logic and definition, it refers to "that which is said in answer to 'what is it?'" and thus means the *quiddity* or *whatness* of a thing. 2. In metaphysics, it refers to "that by which the thing is what it is," and thus means its *identity* or *reality*.

Essentialism, then, is the belief in the existence of an essence and essential properties — that is, the *reality* and *real properties* of a thing (cf. Dadjou, 2018).

¹ Aristotle. *The Complete Works of Aristotle*. Edited by Jonathan Barnes. 2 vols. (Princeton: Princeton University Press, 1995), 1001, 31.

² Brian Ellis, *Scientific Essentialism* (Cambridge: Cambridge University Press, 2001), 71.

priori science¹. Although-as previously mentioned-he accepts the independence of metaphysics from science (in terms of subject and method), he emphasizes the reciprocal interaction and necessity between metaphysics and empirical science; he neither considers empirical sciences independent of metaphysics nor denies metaphysics' essential role in empirical sciences, stressing its epistemic priority over empirical sciences. From his perspective, metaphysics is a science that helps confirm empirical theories corresponding to reality and restrains scientists' incorrect speculations. He believes empirical sciences deal with what is actual, not what is possible, while metaphysics draws our attention to these possibilities, although experience determines which possible structures actually exist. In fact, metaphysics tells us what can exist, and empirical science tells us which of these possibilities are actualized; thus, experience alone, in the absence of metaphysics, cannot determine what is actual and realized. Metaphysics is one of the pillars and foundations of empirical science; that is, if we aim to reach the idea of unity in sciences, we must subsume them under metaphysics.²

If you need the references translated as well or further assistance, please let me know!

Some other Western researchers have also acknowledged the shared subject matter and methodological distinction between metaphysics and empirical science, emphasizing the dependence of empirical science on metaphysics. They attempt to propose a moderate scheme of "moderate naturalized metaphysics," in which metaphysics is essentially a science derived in connection with nature³.

From their perspective, metaphysics is not an infinite or baseless science; rather, the foundations and principles first addressed in metaphysics are the same foundations and principles studied by empirical science, all of which participate in explaining the realm of our experience. In other words, metaphysics is the same subject matter as empirical science, but the philosopher analyzes it from the perspective of the common properties of beings through rational analysis, not from their material aspect. In fact, metaphysical knowledge is attained by one who has a view beyond material causes and seeks to understand the inner structure of the universe. Therefore, reason, by transcending the perceptible, can reach metaphysical understanding⁴. The study of empirical sciences, i.e., beings in their material aspect, can only proceed by inductive methods, and its goal is nothing but discovering natural agents. The object of empirical science is matter, which cannot be certainly, universally, and imperishably known,

¹ E. J. Lowe, "Metaphysics, Natural Science and Theological Claims," in *E. J. Lowe's Approach: An International Journal for Philosophy of Religion and Philosophical Theology*, 2021.

² E. J. Lowe, "Metaphysics as the Science of Essence" (paper presented at *The Metaphysics of E. J. Lowe*, SUNY Buffalo, April 8–9, 2006), 1.

³ Matteo Morganti and Tuomas E. Tahko, "Moderately Naturalistic Metaphysics," 2558.

⁴ Paul Foulkeh, *General Philosophy*, trans. Yahya Mahdavi, 7th ed. (Tehran: University of Tehran, 2015), 5.

whereas the object of metaphysics is beings separate from matter¹. This difference manifests in the results obtained from their respective proofs. Metaphysics is not entirely a priori; rather, its method is rational and thus a priori. However, empirical theories gain generality and comprehensiveness within metaphysical proofs and can provide explanations of creation and the universe.

For example, empirical theories attempting to show the Big Bang as the beginning or boundary of creation can be considered unrealistic, while theories indicating the eternity of the created universe are considered realistic; because based on metaphysics and consistent with the reality of the external world, no starting point can be determined for the universe, and natural agents require another efficient cause for actualization. Tracing back through the series of natural agents does not lead to a first cause. Thus, the created universe is eternal and without beginning, although at every moment there is an occurrence for the universe, and the Big Bang-if correct-is only a starting point for a segment of the universe's continuous occurrence. Therefore, the natural world can be considered bounded from the scientific perspective yet metaphysically eternal and without beginning. Western scientists have proposed various theories regarding the eternity or finitude of the created universe, but what can help select between these is the interaction of empirical science and metaphysics.

Also, for example, proofs such as contingency, which rely on the general and metaphysical attributes of things and the universe, may be certain in proving God's existence, but relying on empirical phenomena such as the Big Bang is not certain for proving God; although if general proofs are extracted from these phenomena indicating the universe's continuous contingency, empirical sciences can be used to support the proof of God's existence.

Furthermore, theological arguments such as "fine tuning," which prove God's existence based on a final cause, cannot currently be considered valid and need to be reconsidered based on efficient causality; otherwise, they will never surpass scientific atheism. Also, chance is a concept within the methodological domain of empirical sciences and may not constitute a valid reason for atheism; because affirming chance only negates final causality in nature, not the existence of God as an efficient cause.

Again, for example, one of the important principles in the metaphysical foundations of science that can help scientists select correct scientific theories and provide theologians with a path to prove God's existence is that natural causes are only the causes of actualizing nature, not the cause of the universe's origination. In fact, the study of natural causes only expands scientists' knowledge of nature and leads to more precise explanations of how the universe occurs. On the other hand, theologians, by examining these causes and interacting with

¹ Ibid: 15 & Mohammad-Taqi Mesbah, *Teaching Philosophy*. Vol:3, (Tehran: Islamic Propagation Organization, 2000), 15.

metaphysics, realize both the eternity of existence and find a way to prove the eternity of nature and the necessity of God's existence.

If you want, I can also translate the references themselves or provide further assistance.

4. Results of Adherence to the Classification and Method of Sciences in Theism

As explained above, due to the interaction between science and metaphysics, if a transformation occurs in science, philosophical explanations have the capacity to develop alongside these scientific changes, and consequently, theology can also, with the evolution of theoretical sciences, provide correct explanations based on metaphysics.

Our aim is less to respond to specific doubts in the realm of atheism or the unprovability of God that arose from the entry of empirical sciences into explaining the world, and more to examine the foundational differences between empirical sciences and theology so that, within the presented discussions, we can establish a mode of interaction between the two; in such a way that by defining the boundaries and specific methods of each, the subject-matter and methodological domains of both sciences are clarified.

We believe that proving the existence of God is the most central outcome of the interaction between empirical science and theology; because only after achieving this does adherence to other interactive necessities between the two-gain importance and necessity.

Another result of this interaction is the elimination of the false pride of empirical sciences over other sciences; since every science, as a part of the whole, plays its role in explaining creation, and the methodological distinction among sciences leaves no justification for the supremacy of empirical sciences over others. Thus, excluding empirical sciences from the category of theoretical philosophy and considering them separate from metaphysics is a fallacy that collapses when emphasizing the methodological distinctions among sciences.

Also, awareness of the distinction between metaphysics and physics is an important outcome of this interaction; because one of the fundamental reasons for the separation of empirical sciences from theology was the weakening of Aristotelian physics, which was taught and defended in the church as metaphysics, and any challenge to it was considered a threat to theology. After this event, empirical science drew a firm boundary between itself and theology, and following the scientific and religious transformations of the Renaissance, a deep gap emerged between empirical science and theology, to the extent that the value and credibility of religious propositions were severely questioned. However, what threatened religion was not the interaction of empirical science and theology, but the rigidity regarding the "metaphysical physics"! Hence, we realize the role of the classification of sciences and adherence to the method appropriate to each science's subject in creating a correct interaction between empirical science and theology. In fact, empirical science and theology cannot enter into an ontological explanation of the universe of creation without the use of metaphysics.

Moreover, theology is a science whose subject is proving and defending religious beliefs, and as mentioned, theoretical philosophy is a science whose subject is the existence of real entities, and each branch of theoretical philosophy studies entities from one aspect or respect. Therefore, theology does not have a subject unity with theoretical philosophy, but due to the necessity of rational proof of religious beliefs, it is compelled to use theoretical philosophy; thus, theology can interact with theoretical philosophy through shared methodology to strengthen religious teachings. At a time when distinctions and criteria for validating propositions did not create a deep boundary between theology and other sciences, in theological texts, first philosophy (metaphysics) and physics were studied before entering theological and doctrinal discussions. But today, Western theology, without the mediation of first philosophy, takes physics from modern empirical sciences and thus suffers from the problems previously mentioned. Therefore, theology can benefit from all branches of theoretical philosophy to achieve its goal and bring them closer to the secondary goal of attaining divine knowledge of existence. In other words, theology is responsible for linking the goal of empirical sciences to the ultimate goal of theoretical philosophy so that empirical science attains a purpose beyond numerical relations, avoids exclusivism of causes within nature, is guided toward supernatural causes, and is freed from absolute scientism¹; this is another result of the interaction between empirical science and theology.

Another result of such interaction is the elimination of any conflicting relationship between science and religion, the dominance of religion over science, or the dominance of science over religion, or any relationship other than science and religion moving in parallel. This parallel movement is such that each illuminate and benefits the other. In this movement, there is no need to reconcile empirical science with religious texts, nor to eliminate religion and rely solely on science; because science and religion do not conflict, and essentially their interaction and mutual benefit lead to the consolidation of religious beliefs. Also, with an independent view of empirical science and without its interaction with theology, although science may not suffer from damage or deficiency in its scientific nature, the negative effects of this separation on ethics and the higher goals of science will become fully apparent.

In fact, empirical science, whether consciously or unconsciously, moves along the path of understanding beings, but there is no guarantee that such knowledge will lead to the existence of God. However, theology, due to the ultimate purpose it pursues in existence, makes humans aware of the ultimate goal of all sciences and seeks the proof of the Creator of existence through scientific results. In this case, empirical sciences are not viewed solely from the material

¹ Robert J. Russell, William Stoeger, and George Coyne, *Physics, Philosophy and Theology* (Vatican City State: Vatican Observatory, 1988), 11.

dimension, and ethics gains a divine foundation, whose benefits become evident in the application of sciences.

Also, if two sciences discuss a common subject but offer two different views-for example, empirical science and theology both discuss the possibility of "Earth's rotation," but one supports Earth's rotation while the other supports its immobility-then a conflict between these views arises, and necessarily the view opposing reality should be set aside. However, if the scope and function of science and theology are defined and overlap is removed, the conflict between views will also disappear; because in an interactive relationship, it is not permissible for empirical science and theology to enter each other's domains. Rather, each can benefit from the other's results and support one another through their own independent and specific methods.

Empirical science, in the process of being influenced by philosophical insights, should not exceed its methodological boundaries nor extend the criteria of truth and falsehood of its propositions to all human sciences and knowledge. On the other hand, theology should not attempt to subordinate science and philosophy to itself, so that both can mutually benefit in parallel. Indeed, if science becomes subordinate to religion, it loses its scientific nature; and if religion becomes subordinate to science, the developments of empirical science will destabilize it.

In our view, the first step in establishing the interaction between science and theology is to emphasize the necessity of interaction between science and its metaphysical foundations, which today appears unavoidable.

Conclusion

In the present study, after reviewing the historical background of the interaction between empirical science and metaphysics, first the necessity of reviving the interaction between science and metaphysics was pointed out; then the position of this interaction was explained; and finally, the results of adherence to the classification and method of sciences in theism were examined, and its benefits for empirical science and theology were enumerated.

It was also shown that the assumption leading us toward a rational metaphysics consistent with the external world is the Aristotelian view and that of Islamic philosophers (the epistemic priority of metaphysics over empirical science), which in its modern formulation can be compatible with the views of Goldman and Lowe (who, while affirming the independence of metaphysics from science, emphasize the necessity of interaction between the two).

The expected outcome of this research is that if the interaction between empirical sciences and metaphysics can be revived, it can be hoped that the inclination toward religion will proceed in a rational manner consistent with the mission of theology. Therefore, the approaches theology has taken against Western atheism-either by strictly aligning scientific theories and concepts with sacred teachings, or completely ignoring scientific theories and concepts, or relying solely

on purely empirical theories (within the methodological domain of empirical science) to defend theism-are not beneficial. Rather, theology can only establish a proper interaction with empirical science through a methodological interaction with metaphysics and defend theism rationally and philosophically.

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