

Georges Lemaître: Between Theology, Philosophy, and Science on the Question of Creation

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Abstract: This article examined the relationship between theology, philosophy, and science in the thought of Georges Lemaître, the Belgian Catholic priest and physicist who proposed, in 1931, that the universe originated from the disintegration of a single primeval atom. Drawing on Lemaître's own writings and addresses, as well as on the biographical and philosophical studies of Dominique Lambert, the article traced Lemaître's consistent defense of two complementary but methodologically distinct paths to truth: the natural path of scientific inquiry and the supernatural path of religious faith. Particular attention was given to Lemaître's reaction to Pope Pius XII's 1951 "Un'Ora" address, which he judged to have blurred this distinction, and to the philosophical positions he articulated at the 1958 Solvay Conference regarding the origin, unity, and intelligibility of the universe. The article argued that Lemaître's model of complementarity, grounded in his repeated invocation of the biblical "hidden God" of Isaiah, offers a historically significant and philosophically coherent alternative to both concordist and conflict-based accounts of the relationship between faith and science.

Keywords: Hidden God, Isaiah, Faith, Science, Priest, Scientist, Complementarity, Two Paths to Truth

1. Introduction

Georges Lemaître—both a Catholic priest and a scientist—approached the potential conflict between faith and science with an open mind, unencumbered by moral, political, or social constraints (for fuller biographical treatments, see De Rath, 1994; Engel, 2013; Farrell, 2005; Holder & Mitton, 2013; Landa, 2021; Laracy, 2008; UCL, 1996). He examined these possible contradictions in a simple, balanced manner, presenting compelling arguments to show that no such conflict exists when the subject is approached logically and without emotional bias. At the 1958 Solvay Conference, he stated:

There is a philosophical dimension to the Primeval Atom hypothesis. Personally, I consider such a theory to remain entirely removed from all questions concerning metaphysics or religion. It allows the materialist to deny everything transcendent. He can adopt the same mental attitude toward the space-time background as he does toward events occurring in non-singular regions of space-time. For the believer, it precludes any attempt at familiarity with God... This accords with the words of Isaiah speaking of the "hidden God"—hidden from the very beginning of creation (Lemaître, as cited in Godart & Heller, 1978, p. 3).

This stance is clearly expressed in the quotation above: scientific theories are neutral with regard to any philosophical or religious doctrine, and no philosophical or theological interpretation belongs to the realm of science. For this reason, Lemaître's theological views remain largely unknown, as he refused to be drawn into a conflict between his two paths. To him, science and religion operated in different domains; religion was rooted in emotion and personal experience and, therefore, need not conflict with science. He consistently spoke of two truths: the supernatural truth, which cannot be attained through human effort alone, and the natural truth, which is commensurate with the capacity of human reason. Based on Lemaître's presentation at the Solvay Conference, three approaches can be outlined.

1.1 *The relationship between the Church and science*

Lemaître assigned a significant role to Catholic universities, which he believed could contribute to the development of the sciences and thereby enable the Church to participate in the highest form of human activity. He stated:

Does the Church need science? Certainly not; faith and the Gospel suffice for it—yet nothing human is alien to Christians. How could the Church fail to take an interest in the noblest of strictly human pursuits: the search for truth? (Lemaître, as cited in Godart & Heller, 1978, p. 7).

This entails a significant responsibility for the Church to participate in the search for truth and to remain at the forefront of scientific developments, so that the training of teachers and the content of religious instruction do not fall behind scientific progress. Lemaître's exhortation remains valid today, as does his warning about the theological consequences of scientific ignorance:

Can theologians themselves bear some responsibility for the disagreements that arise between science and faith? ... for there is a tendency for an apparent conflict to easily emerge between a traditional tenet of religious instruction and a new scientific hypothesis—one based on facts but not yet conclusively proven. Therefore, a cautious approach is required when examining points of doctrine that seem to give rise to such conflicts. ... In any case, their intelligent courtesy will be appreciated by scientists and will serve as a far better form of apologetics (Lemaître, as cited in Godart & Heller, 1978, p. 9).

1.2 The relationship between the Bible and cosmology

The relationship between scientific cosmology and the biblical creation narrative was, for Lemaître, governed by a strict distinction between the scientific order and the theological order, a stance he grounded in Saint Augustine's principle (Rotaru, 2013, pp. 104-108) that:

The Holy Spirit, speaking through the sacred authors, did not intend to convey to mankind the inner constitution of the things he beholds — a teaching of no utility for salvation (Augustine, as cited in Godart & Heller, 1978, p. 9).

For Lemaître, the biblical account of creation and modern scientific cosmology share the same subject—the universe—but adopt entirely different perspectives:

The biblical narrative describes the world as it appears to all people, not what appears to them as a result of their patient inquiries... which leads to a synthetic understanding of the world and a clear concept of the relationships between various elements (Lemaître, as cited in Godart & Heller, 1978, p. 11).

During his youth, when he was inclined toward concordism, Lemaître saw a certain agreement between specific details of the biblical text—such as the order of creation in the opening verses of Genesis—and the actual history of the universe. However, he maintained that the biblical author had no intention of teaching natural science, and that even correct concordist observations remained confined to a literary level non-essential to biblical doctrine. In his own theory of the primeval atom, he never invoked this coincidence with the biblical text. Lemaître later abandoned all attempts to rely on concordist interpretations of the Bible, a move that anticipated the broader retreat of biblical exegesis from concordism in subsequent decades.

1.3 Philosophical optimism

Science and religion, for Lemaître, belong to two different levels of human knowledge, differing in their methods and their language, yet capable of complementing one another within the personality of the believing scientist:

Both the believer and the non-believer strive to decipher the complex world of nature—or the traces of its various evolutionary stages that can be recovered and examined. The believer may hold an advantage in the conviction that every enigma has a solution; since nature is the work of an Intelligent Being, the problems it presents are meant to be solved, and their difficulty is commensurate with the capacity granted for humanity's future. Thus, the believer possesses an optimism that helps sustain their efforts over the long term (Lemaître, as cited in Lambert, 2018, p. 154).

This passage reveals something of the philosophical outlook that guided Lemaître through all of his scientific work: a conviction that the intelligibility of the universe and the theist's confidence in an ultimate solution to its enigmas could motivate scientific inquiry without ever substituting for it. This introductory survey of Lemaître's own statements establishes the interpretive

framework—two distinct but complementary paths to truth—that the remainder of this article examines in greater historical and philosophical depth.

2. The Ideas and Convictions of Georges Lemaître, According to Dominique Lambert

Philosophical or religious elements, for Lemaître, could never be conflated with science; the natural beginning of the world stemmed from the disintegration of the “primeval atom.” Yet Lemaître stated, during the Second Vatican Council, in response to a question from Msgr. Edouard Massaux, the future rector of the Catholic University of Louvain, regarding the origin of the primeval atom, that the primeval atom itself was created by God—while insisting that God cannot be reduced to a system of equations, nor comprehended through science. Reflecting his Thomistic philosophical formation, Lemaître took issue with Blaise Pascal, stating in 1958:

The vision we propose (the primordial atom hypothesis) may contrast with Pascal's view in *Pensées*. We can invert Pascal's words and state that the Universe is infinite neither in size nor in duration; rather, it possesses specific proportions relative to humanity. Science has not surrendered before the Universe, and when Pascal attempts to infer the existence of God from the assumption of the infinity of matter, one might consider that he is looking in the wrong direction. There is no natural limit to the power of the mind; the Universe is no exception, nor does it lie beyond its grasp (Lemaître, as cited in Lambert, 2018, p. 158).

Lemaître believed that the human mind could comprehend the physical universe because God had endowed it with this capacity, and he insisted that scientific method is identical for the believer and the non-believer alike. He acknowledged that religious faith could exert a psychological influence on the scientist, noting that the majority of scientists preceding his own era had been believers. The primeval-atom hypothesis (Lemaître, 1930, 1933, 1951) was rejected by Einstein, by Lemaître's own professor Eddington, and by others who suspected “concordism” given his status as a Catholic priest. One philosophical influence on Einstein's rejection was Spinoza, who in the *Ethics* identified God with Substance or Nature, such that God's immutability precluded any movement or evolution within Nature itself; Einstein grounded part of his resistance to the idea of creation in this Spinozist framework. Lemaître himself, however, insisted that his physics owed nothing to theology. Speaking of the initial singularity in 1958, he stated:

It is an inaccessible region of space-time. Such a description finds support in the singularity arising from Friedmann's theory. ... I do not claim that such a singularity is unavoidable in Friedmann's theory, but I simply point out that it aligns with the quantum perspective on the natural beginning of the manifold and space-time (Lemaître, as cited in Lambert, 2018, p. 165).

Dominique Lambert's analysis also examines Lemaître's membership in the *Fraternité Sacerdotale des Amis de Jésus* (FSAJ; see also Lambert, 1996), noting the views of a fellow member, the Thomist philosopher Fernand Van Steenberghe, whose book *The Hidden God: How We Know God Exists* discussed Pope Pius XII's 1951 address and observed that the Pope had remained within the philosophical realm, addressing the concept of the “hidden God” in relation to philosophical proofs of divine existence. This reading aligns with Lemaître's own contention that the Pope's address bore no connection to Eddington's theories or his own—his name was not mentioned in the speech, which was, in fact, directed against the rival “steady-state” cosmology, a hypothesis later abandoned following the 1965 discovery of the cosmic microwave background radiation.

Lambert further examines the epistemological role that philosophy and Christian theology played in Lemaître's thought, tracing it to his Thomist formation, in which creation is understood as distinct from a mere physical “beginning.” Creation *ex nihilo*, for Lemaître, is a philosophical question that cannot be resolved through physical or astronomical means; it is bound up with the “hidden God” of Isaiah present from the very inception of creation. Lambert classifies the interactions between science and religion in Lemaître's thought into three categories: (a) a heuristic influence, related to the intuition or guidance involved in choosing a scientific principle or axiom; (b) a psychological influence, related to the believing researcher's conviction that every enigma has

a solution and is therefore worth pursuing; and (c) an epistemological influence, related to a fine alignment between theological and scientific concepts that Lambert traces to Lemaître's Thomistic training. Lambert draws further support from Pope Francis's encyclical letter *Lumen Fidei* (no. 34), which states of faith:

This encourages the scientist to remain constantly open to reality throughout their inquiries; it also sharpens the critical sense that prevents research from resting content with mere formulas, helping the scientist realize that nature is always far greater (Pope Francis, as cited in Lambert, 2018, p. 167).

Central to Lemaître's outlook was the theory of two paths to a hidden God, a position he upheld throughout his life. Working within a scientific milieu of the early twentieth century dominated by Protestant and secular convictions, his primeval-atom hypothesis was widely read by contemporaries as implying creation; Einstein himself is reported to have remarked at Caltech that it was “the most beautiful and satisfactory explanation of creation” he had ever heard. In response to such readings, Lemaître articulated his view of science and religion as distinct realms in a 1933 interview:

If the Bible does not teach science—among other things—then what does it teach? you might ask. “The path to salvation,” comes the answer. “Once you realize that the Bible is not a science book, the old controversy between religion and science disappears.” But the Bible states that “creation was completed in six days,” so you protest: “Isn't that a direct, literal statement? What else could it be?” There is no reason to abandon the Bible simply because we now believe it may have taken hundreds of millions of years to create what we consider to be the universe. Genesis merely seeks to teach us that one day out of seven should be set aside for rest, prayer, and worship—all of which are necessary for salvation (Lemaître, as cited in Lambert, 2007, p. 123).

He extended the same principle to physics more broadly:

If the theory of relativity had been necessary for salvation, it would have been revealed to St. Paul or Moses (...) But in reality, neither St. Paul nor Moses had the slightest idea about relativity. The writings of the Bible were illuminated—some more than others—regarding the matter of salvation. In other respects, however, the authors were just as wise or ignorant as their generation (Lemaître, as cited in Lambert, 2007, p. 123).

Lemaître's thought on this question owed much to his professor Eddington, whose own faith and science coexisted without tension. In *The Nature of the Physical World*, Eddington argued that the foundation of physics—which he considered ultimately a spiritual order—lay beyond the reach of physics itself, since the discipline remained confined within its own conceptual boundaries:

Within this foundation lies our own mental consciousness and what we may discover there—if, indeed, it contains a facet of a Power that transcends consciousness yet is analogous to it (Eddington, as cited in Lambert, 2000, p. 162).

For both Eddington and Lemaître, this distinction between the material and spiritual orders never implied separation; a unity existed between them that could not, however, be grasped through a purely scientific perspective. Both men combined profound respect for scientific hypotheses with an explicit warning against reducing theology to mathematics. Lemaître's ability to converse as an equal with figures such as Einstein, Hubble, and Millikan surprised the American public, particularly given that the Protestant majority in the 1930s United States largely read the opening verses of Genesis in a fundamentalist register that seemed difficult to reconcile with an expanding universe. In one interview, he offered his clearest personal statement on the question:

There are two paths to truth. I decided to follow both. Nothing in my working life, nor anything I learned during my studies in science and religion, has ever caused me to change my mind. I find no conflict in reconciling them. Science has not shaken my religious faith, and religion has never influenced the conclusions I reached through scientific methods (Lemaître, as cited in Lambert, 2000, p. 165).

A further factor that pressed Lemaître to clarify his position was Einstein's own reception of the primeval-atom hypothesis. Although Lemaître maintained that his work relied solely on physics—a universe with a beginning, derived from quantum mechanics, thermodynamics, and general relativity—Einstein perceived a metaphysical and religious dimension in the theory, in part because of Lemaître's status as a Catholic priest. Recounting a meeting with Einstein in Pasadena in the early 1930s, Lemaître reported that when he tried to explain the hypothesis, Einstein interrupted him, asking: “Doesn't that suggest creation too strongly?” (Einstein, as cited in Lambert, 2000, p. 175).

The insistence on separating the spiritual and material dimensions of reality through the “two paths” framework created a productive tension within Lemaître's thought, evident in an address he gave at the Sixth Catholic Congress in Malines, titled “Catholic Culture and the Positive Sciences” (*Actes du VI^e Congrès Catholique de Malines*, 1936). There, he proposed two methodological principles: mutual respect, meaning that science and other human activities should be neither downplayed nor overstated relative to one another, and unity without confusion or separation, meaning that science should maintain equal distance from two extremes—treating faith and science as wholly isolated compartments, or indiscriminately mixing what ought to remain distinct. For Lemaître, scientific content held no direct theological value in itself; a researcher, in his phrase, “can set aside their faith while conducting research.” Unity was instead achieved at the level of lived practice, in the meaning the believing scientist brought to a fundamentally human activity:

He maintains a supernatural faith in both the loftiest and the humblest of activities. He remains a child of God when he peers through the microscope, just as he does during his morning prayer, when he entrusts his work to the protection of his Heavenly Father. When he reflects on the truths of faith, he knows that his knowledge of microbes, atoms, or suns offers neither certainty nor a path to that inaccessible light; he realizes that, like everyone else, he must possess the heart of a small child to enter the Kingdom of Heaven (Lemaître, as cited in Lambert, 2000, p. 168).

Lemaître never intended his “primeval atom” hypothesis to carry theological meaning or to be set in opposition to scientific findings; he consistently viewed science and faith as two paths converging on the same truth, without the intellectual tension that might be expected of a scientist who was also a priest. He frequently invoked the words of the prophet Isaiah—“Where are You, O hidden God, O God and Savior of Israel?”—to describe a God who remains hidden without thereby ceasing to exist, respecting instead the autonomy of the world he created:

The Christian researcher knows that everything that has been made was made by God, but also knows that no part of God is a substitute for His creation. Divine, omnipresent activity is, in essence, hidden everywhere. He will never be able to reduce the Supreme Being to the status of a scientific hypothesis (Lemaître, as cited in Lambert, 2000, p. 275).

The concept of the “hidden God” recurs as the most consistent theme in Lemaître's implicit theology, from his 1931 article in *Nature* to his 1958 address at the 11th Solvay Conference, where he reiterated that the primeval-atom hypothesis had no connection to any philosophical or religious foundation:

Personally, I consider the hypothesis to be entirely outside the realm of metaphysical or religious issues. It leaves materialism free to deny anything transcendental. It is bound to space-time—reflecting the same mindset one might adopt regarding events occurring within a non-singular space-time context. For believers, it rules out any attempt to link it to God... It aligns with the words of Isaiah, who speaks of a “hidden God”—hidden from the very dawn of creation (Lemaître, as cited in Lambert, 2000, p. 276).

Regarding the natural beginning of the universe (see also De Castro, 2022, for a kenotic theological reading of this “hidden God”), Lemaître preferred, in the manner of Pascal before Laplace, to envision a God who intervenes within the realm of secondary causes to set the world in motion, while reserving Isaiah's “hidden God” for the supreme, inaccessible God whom no one has known and who remained hidden even at the world's inception. For Lemaître, theological

creation *ex nihilo* could never be conflated with the physical beginning of the universe described by the primeval-atom hypothesis.

3. Georges Lemaître and the Un' Ora Affair

It is against this backdrop that Pope Pius XII delivered his famous address on November 22, 1951, before the Pontifical Academy of Sciences, gathered for a week-long study of micro-seisms. Delivered in Italian under the title “Un'Ora” (“An Hour”), the speech addressed proofs of God's existence in light of modern natural science. Pope Pius XII, who maintained a lifelong interest in astronomy, sought to suggest that contemporary physics could enrich the empirical foundations on which Thomist philosophical arguments for God's existence might be grounded (Rotaru, 2005, pp. 320-322). At the same time, the Pope was careful to note that astrophysics did not definitively validate the doctrine of *creatio ex nihilo*. He echoed Saint Thomas's position that faith established the non-eternity of the world without thereby providing a demonstrative proof of it, and he affirmed that no empirical data could constitute absolute proof of creation, a matter belonging to metaphysics and revelation. Despite these caveats, the address used language that could suggest contemporary astrophysics naturally opened onto the realm of Revelation, aiming to counter the thesis that materialism was the only philosophy compatible with the data of physics and astronomy:

... it is worth noting that modern scientists advanced in these fields consider the idea of the universe's creation to be perfectly compatible with their scientific views—an idea that arises spontaneously during their research—whereas, a few decades ago, such a hypothesis was rejected as completely irreconcilable with the then-current state of science (Pius XII, as cited in Lambert, 2000, p. 285).

Lemaître was present at this address, and, according to those who heard it, was not particularly pleased. The reason lay in his judgment that the Pope had overlooked the natural, physical account of the universe's origin and failed to maintain sufficient distinction between theology and the sciences, bypassing the “two paths” approach Lemaître had long defended. A further irritant was the Pope's use of the phrase “primitive initial state of the universe,” which pointed directly to the primeval-atom theory and inflamed reactions among those already suspicious of Lemaître's hypothesis. Nevertheless, true to his principles, Lemaître responded with continued respect for the Pope, stating even after the pontiff's death:

As for the attitude of the Sovereign Pontiff, it is clear that he kept to the ground with which he was familiar—ground that had no connection whatsoever to Eddington's theories or my own. My name was not mentioned during that speech (Lemaître, as cited in Lambert, 2000, p. 285).

The primary source behind the Pope's address was a book by the mathematician Edmund Taylor Whittaker, *Space and Spirit*, subtitled *Theories of the Universe and the Arguments for the Existence of God*. Whittaker, who converted to Catholicism in 1930 and was elected to the Pontifical Academy the same year as Lemaître, had, in Lambert's account, conflated the theological concept of creation with the physical concept of the universe's beginning—a conflation that Pius XII's address appears to have inherited.

In 1961, Canon Fernand Van Steenberghen discussed Lemaître's attitude toward Pius XII and Whittaker in his own book, tellingly titled *The Hidden God*, which addressed philosophical proofs of God's existence; Van Steenberghen highlighted Lemaître's characteristic prudence and his reluctance to criticize the Pope directly. The only surviving document that records a more candid reaction to the “Un'ora” address is a December 1951 letter from Abbé Herman Heyters—a fellow member, with Lemaître, of the *Fraternité Sacerdotale des Amis de Jésus*—to the Benedictine nun Madeleine Delmer. The letter indicates that Lemaître's primary frustration was directed not at Pius XII personally but at his entourage:

His impression? A speech composed by two scribes: the first wrote along the lines that science provides new evidence for God's existence, while the second—or the Pope himself—corrected

it by inserting passages stating that there is no question of new evidence, as the only true proofs are metaphysical in nature (Heyters, as cited in Lambert, 2000, p. 286).

Lemaître's respect for the Pope did not prevent him from believing that Pius XII's own advisers had failed to distinguish adequately between faith, science, and metaphysics when drafting the address, and that the Pope had not consulted him beforehand. The Belgian and French press, along with the wider public, largely interpreted the address as an endorsement of Lemaître's own hypothesis, an interpretation that troubled him enough that he avoided the press interviews he was subsequently asked to give.

In 1952, Pope Pius XII delivered a second address, to the eighth General Assembly of the International Astronomical Union, which made no further reference to a primeval state of the universe and sought instead to smooth over the earlier controversy:

In its arduous undertaking, the human spirit does not halt before the most formidable cataclysms of a nova or supernova; it measures the enormous velocities of the expelled gases and seeks to uncover their causes. It sets out in pursuit of galaxies fleeing through space, retracing the path they have traversed over billions of years and becoming, as it were, a spectator to the cosmic processes that have unfolded since the first morning of creation (Pius XII, as cited in Lambert, 2000, p. 291).

As in 1951, the address again traced a line from physics toward metaphysics, continuing the same line of thought as “Un'ora”:

... there is no possibility that even the most brilliant researcher could ever know or discover all the enigmas contained within the physical universe. This postulates and points to the existence of an infinitely superior Spirit—the Divine Spirit—which creates, sustains, and governs, and consequently knows and fathoms through supreme intuition—both today and at the dawn of the first day of creation—everything that exists (Pius XII, as cited in Lambert, 2000, p. 292).

Commentators at the time regarded the 1952 address as a continuation of the 1951 speech (see also De Felipe et al., 2015; Tanzella-Nitti, 2016), and the episode as a whole illustrates the interpretive risk Lemaître had spent his career trying to avoid: even a carefully qualified papal statement about physics could be read by the public as either a scientific argument for God or a theological endorsement of a particular cosmological model, blurring precisely the distinction between the two paths that Lemaître considered essential to both good science and good theology.

4. Georges Lemaître's Philosophical Positions

Msgr. Lemaître set out the philosophical positions involved in the primeval-atom hypothesis most clearly in the report he presented at the 11th Solvay Conference in 1958 (see also Solvay, 1964; Académie Royale de Belgique, Classe des Sciences, 1995), in which he identified three philosophical themes at stake: epistemological assumptions, the question of the universe's origin in relation to time, and the relationship between the one and the many.

The epistemological assumptions rest on general relativity, which is, on its own, insufficient to determine a model of the universe; constructing one requires additional cosmological hypotheses, foremost among them the principle of uniformity, or “cosmological principle,” which holds that the observer's position in space and time does not affect the validity of extrapolating from observable to unobservable regions of the universe. Whether such extrapolation is justified depends on further assumptions about the geometry of space: an infinite space renders the observable region negligible relative to the whole, while a finite, elliptic, and compact space of sufficient radius makes extrapolation a defensible procedure. Lemaître regarded the resulting topology of the universe as a legitimate extrapolation supported by, though not strictly entailed by, the scientific data—a conclusion he treated as epistemological rather than ontological, since it rests on observation of the observable universe even as its underlying premise of uniformity remains, at bottom, a metaphysical hypothesis (Lambert, 2000, p. 305).

The question of origin, for Lemaître, drew on the Kantian antinomies concerning the faculties of the mind—understanding, reason, and the regulative faculty of judgment—whose

categories comprise quantity, quality, relation, and modality. The first antinomy concerns the idea of a beginning and the limits of the concepts of space and time; the second concerns decomposition into singular particles occupying space; the third contrasts absolute spontaneity with universal determinism; and the fourth addresses the relativity of the idea of an absolutely necessary being. Reasoning by *reductio ad absurdum* that a world without a beginning is untenable, Lemaître aligned himself with Kant's first thesis: the universe has a beginning, understood as a mathematical singularity rather than as the ordinary physical concept of an "initial condition." In this framework, Lemaître held that the primeval-atom hypothesis remained apart from metaphysical or religious questions even as it implied a "hidden God" who does not manifest within creation itself, and a beginning at which the very concept of time loses its ordinary meaning (Lambert, 2000, p. 309).

The relationship between the one and the many concerned, for Lemaître, the genesis of plurality from an original unity. Rather than positing an external agency to explain this emergence, he treated it as a physical process internal to the primeval atom itself: multiplicity arose from the atom's own self-affection, which led to its fragmentation, so that self-affection functioned as the generator of multiplicity within an entirely physical, rather than metaphysical, account (Lambert, 2000, p. 309).

5. Conclusions

Throughout his life, Lemaître maintained a non-conflictual approach to the relationship between philosophy, theology, and the sciences, opposing the forms of concordism that fueled science-theology conflict in the early twentieth century and advocating instead for constant communication between these two distinct paths of understanding the universe.

Although Lemaître did not directly engage in philosophical work between his studies at the Higher Institute of Philosophy and the mid-1930s, this did not mean he was unaware of developments in the field. Guided by a prudent respect for the boundary between his two paths, he criticized philosophers in 1935 for neglecting subatomic physics, particularly the principle of quantum indeterminacy, at a meeting of the Philosophical Society of Louvain on September 24–25, 1935 (Lambert, 2000, p. 305). That meeting led to his acquaintance with Ferdinand Gonseth, who would significantly influence the development of Lemaître's cosmology and who encouraged him to publish *The Primeval Atom Hypothesis* in 1945, contributing its preface. Lemaître and Gonseth shared a common outlook: a philosophy open to new empirical discoveries that resisted forcing those findings into a pre-existing philosophical framework.

For both men, dialogue between philosophy or theology and the sciences was essential, since knowledge is invariably imperfect and limited even as it is capable of refinement—a consequence of the nature of mental representations, which can never fully capture even the smallest phenomena. At this meeting, Lemaître also took up Gonseth's process of "dialectization," introducing the notion of quantum states as distinct from their classical counterparts and understood, in the dialectical sense, as sets of possible realities (Lambert, 2000, p. 309). He distinguished the observer within the theoretical framework of quantum mechanics from the actual, embodied observer at the macroscopic level, establishing a conceptual boundary between the quantum world governed by Heisenberg's uncertainty principle and the world of lived human experience, for which quantum mechanics remains, in an important sense, out of reach. The underlying premise is that quantum mechanics does not encompass the entire universe, and certainly not the human sphere.

Lemaître's contributions to philosophical meetings consistently avoided presenting a philosophical interpretation of his own scientific work; as in his science, he focused on the clarification of specific concepts rather than on speculative natural philosophy. As a philosophy professor, he addressed topics including survival after death, the evolution of Western civilization, and human evolution, championing a spirituality that answered questions of human transcendence while drawing on elementary mathematics, metric geometry, and topology to refute both materialism, which reduces thought to sensation, and idealism, which attributes to ideas an origin

independent of sensation. For Lemaître, the dialogue between science and philosophy or theology was necessarily a fruitful dialogue between faith and reason, leading toward a harmonious understanding of the universe as, in his words, intelligible even while indeterministic and strange. On February 17, 1950, at a lecture at the Catholic Institute of Paris, he stated:

I hope I have demonstrated to you that the universe is not beyond humanity's reach. It is Eden—the garden placed at man's disposal for him to cultivate and care for. The universe is not too vast for man; it exceeds neither the possibilities of science nor the capacity of the human spirit (Lemaître, as cited in Lambert, 2000, p. 313).

Lemaître's reflection on the strangeness of the atomic world led him toward the intuition that the universe possesses far more dimensions than ordinary experience suggests. He held that physico-mathematical representations remain always subject to revision and inherently imperfect, since nature is invariably richer than any model can capture; science, on his view, functions less as a description of reality in itself than as a system of conventions that allows a concise account of available experimental results—results that may change at any time and that often surprise us with their strangeness. Although Lemaître admired Laplace's celestial mechanics, he was, philosophically speaking, anti-Laplacian:

In Laplacian determinism, everything is written; evolution seems to unfold like a recorded magnetic tape or the etched grooves of a phonograph record. All we can hear is what can be read from the tape or the disc. This is entirely at odds with the conception of modern physics and current theory regarding the universe since the beginning of its evolution. That beginning is perfect, simple, indivisible, undifferentiated—atomic in the Greek sense of the word. The world differentiates itself through evolving measurements. It is not a matter of decoding recordings; it is a song in which every note is new and unpredictable. The world is made and unmade by chance (Lemaître, as cited in Lambert, 2000, p. 316).

Proceeding from this indeterminism, neither Lemaître nor Eddington ventured to give a full account of the freedom of human consciousness—a limit each seemed content to leave standing at the edge of an otherwise carefully mapped territory. Taken as a whole, the record examined in this article shows Lemaître neither subordinating his science to his faith nor his faith to his science, but rather holding both, throughout a scientific career of the first rank, as two paths converging, without ever merging, on a single hidden God—a model that continues to inform broader treatments of the science-theology dialogue (Gionti, 2020; Luminet, 2000; O'Collins & Meyers, 2012).

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