Matter and Spirit in Raimon Panikkar’s Cosmotheandric Universe
之间的单论和二论之间，是否存在一种第三的可能性，在其中物质和精神同时保持其完整性和关系？从基督三一论的教义和印度教奥义论哲学中汲取灵感，宗教间学者拉蒙·帕尼卡克（Raimon Panikkar）发展了他的非二元（或超二元）方法，以克服单论（倾向于认为精神高于物质）和二论（倾向于认为物质高于精神）的极端。帕尼卡克对宇宙论原则的阐述，认可了身体、心灵和精神的三重相互关系，作为所有宗教和文化的基础不变量。这篇论文探讨了对宗教间和文化间对话的启示，以及有助于理解当今世界面临的生态挑战。

物质与精神

在某种程度上，几乎所有人都同意物质和精神是两个基础现实，界定我们的世俗存在。然而，我们所关心的是物质和精神的关系。哪一个具有优先性？是否在重要性或最终意义上，一个吞没了另一个？现实世界是精神领域，物质世界只是表象之一？许多神学（上帝或精神绝对）和哲学（存在或意识绝对）倾向于这种
idealistic perspective. On the other hand, modern science gives pride of place to matter, energy, space and time as ultimate—and measureable—realities. Here, the spiritual realm is largely ignored or even denied. Whether these idealist or materialist approaches to reality are expressed in monistic or dualistic terms, we need to ask if there is a third possibility in which matter and spirit may be reconceived in a more integrative, co-constitutive relationship so that the ultimacy and sacredness of both matter and spirit are affirmed.

Readers of Raimon Panikkar will be aware that his cosmotheandric, advaitic or trinitarian vision of reality is one such attempt to articulate a positive response. In a nutshell, Panikkar asserts that reality is neither one, nor two, but intrinsically three-fold; it is neither an undifferentiated unity nor sheer multiplicity. In his terminology, cosmic matter, human consciousness and divine freedom interpenetrate one another in a co-constitutive relationship. They are not three individualized substances but exist in radical relativity and mutual inter-independence: “There is a kind of _perichoresis_, ‘dwelling within one another,’ of these three dimensions of Reality: the Divine, the Human, and the Cosmic.”  

In terms of our topic, this means: “There is no matter without spirit and no spirit without matter, no World without Man, no God without the universe . . .” 2 Moreover, says Panikkar, this interpenetration of the material and spiritual exhibits itself in a kind of natural rhythm experienced in classical cultures but lost in our industrial, technological culture:

I am convinced that our technocratic culture, in its cultivation of acceleration, has infringed on the natural rates and rhythms of matter and spirit, thereby shaping an agitated, restless society.3

In other words, our discussion of the relationship between matter and spirit requires us to examine the manner in which technology alters the natural rhythms and human consciousness. The more technologized our world becomes, it seems, the less are we able to experience the divine, human and cosmic rhythms in the flow of time.

Technology, of course, is the precocious child of modern science since the Enlightenment. Consequently, I would like to show something of Panikkar’s less well-known scientific studies (1940s & 1950s) which prefigure his cosmotheandric vision of reality. I hope this will show that Panikkar is not presenting us with some nice spiritual vision for the religiously and mystically

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2 Raimon Panikkar, “Philosophy as Lifestyle,” in Philosophers on Their Own Work (Berne: Peter Lang, 1978), 206.

3 Raimon Panikkar, Cultural Disarmament: The Way to Peace, 16.
inclined (as he is sometimes seen, especially in the West). Well before he embarks on deeper dialogue with Hindu and Buddhist metaphysics (and even Christian Trinitarian theology), Panikkar presents a philosophy of science which seeks to affirm the ultimacy and mutual interdependence of matter and spirit. His approach affirms the insights of modern science while also critiquing its inadequacies for an integral and wholistic vision of reality. He also develops primary categories which inform his later articulation of the cosmotheandric vision.
Ontonomic Principle

In his earliest scientific studies, Panikkar introduces his notion of *Ontonomy*.\(^4\) *Ontonomy* stresses the interdependence of science and philosophy as distinct from unilateral *heteronomy* (medieval science’s suffocating dependence on philosophy) or non-relational *autonomy* (the rebellious emancipation of science after the Enlightenment).\(^5\) Only ontonomy can provide an adequate model for situating the authentic role of science in an wholistic approach to reality.

Focusing on the place of science in culture, Panikkar shows how different thought-patterns produce distinct worldviews: *substantive thought*, with its static approach to reality (change and activity are ‘accidental’), inevitably results in philosophy’s dominance over science; *functional thought*, with its dynamic conception of reality (essential categories are movement and change), usurps philosophy and entrones the physical sciences. Physics replaces metaphysics as the key to reality.\(^6\) Panikkar's argument is

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\(^5\) See "Le concept d'ontonomic," *Acts of the Eleventh International Congress of Philosophy Brussels 20-26 August 1953*, vol. 3 (Louvain: Nauwelaerts, 1953), 182ff. Here, Panikkar develops a ‘third way’ of interrelationship (*ontonomy*) which is distinguished from the heuristic models of *heteronomy* and *autonomy*.

that neither a paternalistic philosophy nor an absolutized science is adequate; physics and metaphysics need to form an "harmonious symbiosis".  

If, then, we are to "cross the Rubicon between philosophy and science," there is a need to overcome: the compartmentalization of knowledge; the assumption that reality is totally accessible to human thought; and the methodological reduction of all reality to dialectical laws. Panikkar legitimates the empirical sciences' contribution to understanding reality while insisting that such understanding is intrinsically partial. The positive insight of science, by focusing on the dynamic character of created beings, is its ability to measure space and time. This is precisely the value of functional thinking, following Newton and Einstein: it recognises that movement and change are intrinsic to material reality. The true being of created things is not only in their ex-sistence but equally in their in-sistence, their extension in time and space: in the created order, the being of things includes their be-coming.

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7See also "La colaboración común" where Panikkar allows philosophy to have a "constitutional reign" over science, but not a "dictatorial imperialism." *Ontonomía*, 28-32.

8 *Ontonomía*, 127, 33-71, 137.

9 *Ontonomía*, 133-163, esp. 154ff.

10 *Ontonomía*, 149.
Panikkar further proposes that *Ontonomía de la Ciencia* is the exposition of a single thought, the idea that "reality is one and multiple at the same time--although," he is careful to add, "not in the same way."\(^{11}\) Here he is already speaking of the Christian Trinity as the fundamental paradigm and ultimate mystery for understanding every ontological reality, whether divine or non-divine. In this view, creation and matter need to be understood with reference to spiritual reality. Without an awareness of this transcendent dimension, he says we inevitably fall into the trap of "radical dualism" (the denial of unity) or "cosmological monism" (the denial of multiplicity).

Whereas philosophy stresses the unitary character of reality, science emphasizes multiplicity. Nonetheless, Panikkar warns, neither emphasis is absolute.\(^{12}\) From this it follows there is no *single* method by which reality can be legitimately approached or understood. Panikkar gives many historical examples in which the absolutization or universalization of a single method has brought disastrous results to humanity.\(^{13}\) In the context of this discussion, he

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\(^{11}\) *Ontonomía*, 7.

\(^{12}\) *Ontonomía*, 8.

\(^{13}\) Panikkar gives many examples of such violations including the negative impact of Cartesian rationalism, Spinoza's geometrical ethics, Leibniz's functional thought, Kant's Newtonian paradigms. One of the more serious problems is that Philosophy, in an attempt to combat the influence of Science, has assimilated the "scientific method". *Ontonomía*, 25-28.
establishes one of his enduring principles: "the object should condition the method"; and since reality is multiple as well as one there is need for a "diversity of methods" according to distinct (although inseparable) dimensions of reality.\textsuperscript{14}

Scientific methodology suffers from two intrinsic limitations. The first is \textit{epistemological}: science is based upon measurement and observation with the aim of establishing "pure objectivity" which it believes is possible on account of its "total disinterestedness."\textsuperscript{15} However, Panikkar reminds us that science inevitably relies on human measurement, fallible observation, hidden interest or other forms of imperfect, human mediation.\textsuperscript{16} He surmises that the subject and object invariably condition each other in the experiment as in life itself. He further suggests that the human being and the world form a unity and inform each other.\textsuperscript{17}

The second limitation--\textit{metaphysical}--concerns the nature of thought and reality: science not only observes and

\textsuperscript{14}"El objeto debe condicionar el método." \textit{Ontonomía}, 21, 31.

\textsuperscript{15} Panikkar also states that science's supposed 'disinterestedness' is in reality a matter of 'disconnectedness'. \textit{Ontonomía}, 43-45.

\textsuperscript{16} Panikkar marks the paradox of science's "interest" as "disinterest" in the fundamental reality of things: \textit{Ontonomía}, 43.

\textsuperscript{17} After Heisenberg, Panikkar argues, human knowledge of physical reality must be recognized as always inexact and never rigorous. El mundo y el hombre forman una unidad. \textit{Ontonomía}, 152f.
measures, it also compartmentalizes. Its concern or interest, despite its best intentions, is to separate, divide and measure pieces of reality without relationship to the whole. The reduction is double, in terms of both subject and object, or thought and reality. On the side of the subject, the human mind is more than a cognitional, logical, analytical instrument; measurability is only one aspect of intelligibility; knowledge of causes only one way of explaining reality. On the side of the object, there is the whole gamut of relations and connections, including those with the non-observable, spiritual world. These connections cannot be known according to subject-object duality; they require participation, wisdom and even love.

Panikkar does not contest the legitimacy and benefits of the scientific method as its insight into the intrinsic dynamism of the material universe and its power to aid the emancipation of humanity clearly demonstrate. What he critiques is the universalization of science as the only method. In his view, any single method is inevitably partial, certainly incomplete.

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18 Ontonomía, 46-50; Naturaleza, 6-8. The theme of reason’s limitation is common throughout Panikkar's early works and is fundamental to his study on F. H. Jacobi y la filosofía del sentimiento (Buenos Aires: Sapientia, 1948).

19 Ontonomía, 46f.

20This type of "affective knowledge" is linked to Panikkar’s understanding of "Sentiment". The truth of reality is not reducible to that which the mind judges to be scientifically certain and mathematically clear. Ontonomía, 41-43.
and, in fact, quite destructive when divorced from other forms of knowledge and different approaches to reality. Ultimately, Panikkar seeks to integrate the insights of modern science and functional thinking with those of the philosophical tradition. For example, he accepts evolution as a scientific fact, but seeks to explore its meaning in context of the higher principle of the cosmic and hierarchical dynamism of the universe.\textsuperscript{21} In fact, all "cosmological problems" must be approached from the perspective of various disciplines in "diversity and collaboration"; merely dialectical procedures are inadequate.\textsuperscript{22} Clearly, Panikkar's multidimensional and interdisciplinary approach to reality relies on the concept of ontonomy--the foundational principle of the interdependence of diverse `methods' of research--as its key hermeneutic principle.

**Entropy, Matter, Time**

Panikkar's studies on entropy, matter and time begin with comprehensive examinations and assessments of the scientific data which it is not within our scope or competence to analyze. However, we do summarize his scientific conclusions which become his points of departure for

\begin{itemize}
  \item \textsuperscript{21} *Ontonomia*, 183.
  \item \textsuperscript{22} *Ontonomia*, 136, 128.
\end{itemize}
establishing dialogue with philosophical issues and even theological concerns.\(^{23}\) This shows Panikkar's double concern: to validate the *rights* of science within its own sphere of competence; and to demonstrate the *limits* of science once it transgresses its legitimate boundaries. His dialogical and interdisciplinary methodology searches for a meeting point in which modern scientific *evidence* and the voice of *tradition* may both speak their own truth.\(^{24}\)

In light of this approach, Panikkar's study of the law of *entropy* leads to an examination of its philosophical repercussions.\(^{25}\) The entropic law establishes that natural processes are irreversible and operate in a determinate direction. On this scientific basis it is possible to calculate physical processes according to energy transference and dissipation; it further explains how natural systems tend towards their own demise. Not only do these scientific findings appear to contradict certain philosophical conceptions of the universe—such as the eternal return and circular movement—but they seem to imply the "thermal death" of the universe.

\(^{23}\) In *Ontonomía* the major concern is the dialogue between philosophy and science. However, theological considerations are also evident, as it were, in the 'background'.

\(^{24}\) For Panikkar, such hermeneutics of interdisciplinary conversation is reliant on the category of faith: *Ontonomía*, 42.

In fact, according to Panikkar, neither science nor philosophy can demonstrate a necessary end to the world. To the contrary, a planetary vision requires another solution which does not admit to the "ontological degeneration of the universe." Even the necessary collaboration of science with philosophy proves to be inadequate for this task. Only a transcendental appreciation of material and temporal reality, revealed through the Cosmic Law of Creation provides an integral perspective for situating the law of entropy as a (paradoxical) sign of the positive movement of the universe towards its proper (divine) end. In other words, since the universe is not bounded by material and natural processes (the fields of science and philosophy), a transcendental or theological voice is also required in any discussion of its final cessation or destiny.

Panikkar takes a similar view of the ontonomic relationship of science, philosophy and theology in his investigation of modern scientific studies of matter and time. Matter may appear to be totally passive, inert and entirely dependent on external laws which, in principle at least, are scientifically determinable. However, modern physics since Heisenberg has established there is an incommunicable dimension to

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26 *Ontonomia*, 229, 231, 240f.
matter which is irreducible to any general law. This scientific principle of the ultimate indeterminacy of physical phenomena represents modern science's "revenge of truth." Moreover, it opens the way for a fruitful dialogue with philosophy:

Scientific indeterminacy traces an echo of the direct relation of matter to an intrinsic--ineffable--law which comes from its own nature, received from God. It is evident that the ultimate behaviour of created being does not depend on external factors--those that are measurable--but on an intrinsic factor which arises from the nature of that being.

Whereas science has established this radical indeterminacy of physical matter and elemental processes, the metaphysical significance is a philosophical question. Determinism--whether in its physical or philosophical varieties--"implies that reality is inexhaustibly measurable . . . by the human mind." Indeterminacy, however, implies there is something enigmatic, opaque, spontaneous and

27 Ontonomía, 243-308; redaction of an earlier article entitled "El indeterminismo científico," Anales de Física y Química (Madrid), 41:396 (1945): 573ff.

28 Ontonomía, 245.

29 Panikkar traces the development of physics from Descartes and Newton, through Kant and Laplace, to positivism: Ontonomía, 297.

30 Panikkar critiques both idealism and realism on the score of their deterministic positions: Ontonomía, 299.
unintelligible in reality itself. This is the radical individuality or the intimate identity of what things are in them-selves.\textsuperscript{31}

Nonetheless, Panikkar submits that he is not making a kind of metaphysical declaration of material anarchy.\textsuperscript{32} Individuality does not imply absence of relationship; to the contrary, it manifests intimate relationality in being itself.\textsuperscript{33}

For example, an atom exists as pure function of a molecule, yet distinct from it; or, the material element of a spiritual entity is-itself inasmuch as it is-in, is-with, moving-towards and proceeding-from its higher spiritual nature. Accordingly, this relationality of beings rules out both dualism and monism as acceptable procedures.\textsuperscript{34}

The theological implications are not difficult to recognize: the indeterminacy of matter is related to freedom, hope, the world of the spirit and the christian doctrine of the resurrection of the flesh.\textsuperscript{35} Equally, it defies any notion of a God who has broken off all meaningful relationships with the

\textsuperscript{31} Ontonomia, 298, 293.

\textsuperscript{32} Panikkar's thomistic sense of cosmic--and cosmological--harmony is an ever-recurrent theme: Ontonomia, 285.

\textsuperscript{33} Panikkar draws from the work of Niels Bohr--particularly the Principles of Correspondence and Complementarity--to show that modern physics (which is concerned with quantifiable causality) requires the complementarity of classical physics (which recognizes the mutual and immeasurable relationship of cause and effect). Ontonomia, 278, 290f.

\textsuperscript{34} Ontonomia, 300-302.

\textsuperscript{35} Ontonomia, 240.
material (and human) world. Panikkar's imaginative interpretation of the indeterminacy of matter is really along the lines of a modern scientific verification of philosophical realism and theological sacramentality. His approach to the study of time is a further demonstration of this multidisciplinary procedure.

He notes from the outset that the concept of *time* is a paradoxical phenomenon which requires the ontonomic collaboration of philosophy with science. Classical philosophy approached the problem of time by treating it independently of space, whereas modern physics recognizes the intimate connection between the temporal and spacial dimensions of reality. Scientific investigation has attempted to establish the "atom of time" as the minimum observable interval underlying physical processes. But the very ingenuity and current failure of these attempts reveals the philosophical weakness of the cartesian-kantian concepts on which the edifice of modern science has been built: the assumption that real time is only that which is measurable;

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36 *Ontonomía*, 304.


38 *Ontonomía*, 342, 351, 325.

39By "current failure" is intended the inability of physicists to ascertain the measurement of the atom of time with any degree of mathematical certainty: *Ontonomía* 340.
and the idealistic conception of space and time as a priori thought-forms.\textsuperscript{40}

To the contrary, Panikkar suggests that real space and time are intrinsic and constitutive dimensions of physical bodies. As such, they are fundamentally contingent realities and, unlike mathematical concepts, are simply not infinitely divisible.\textsuperscript{41} The notion of the individuality and irreducibility of material bodies is also applicable to the nature of time: there remains an opaque, non-observable, immeasurable element which modern physics itself has come to recognize.\textsuperscript{42}

Mathematical time represents the ingenuity of functional thought: it measures the quantum of time which appears as a limited unity representing a certain minimum of (measurable) time with respect to the real movement of bodies.\textsuperscript{43} However, Panikkar reiterates that the physical processes of the universe transcend spatio-temporal coordinates: the elemental movements of the physical world are really multiple; and each bodily movement has its own

\textsuperscript{40}See Panikkar's comments on "La evolución historica" and his critique of Kant. \textit{Ontonomía}, 341ff., 315.

\textsuperscript{41} Note, also, Panikkar's rendition of the "principle of individuation" (citing Aquinas). \textit{Ontonomía}, 315, 317, 326.

\textsuperscript{42} \textit{Ontonomía}, 341, 343.

\textsuperscript{43} \textit{Ontonomía}, 351.
proper and individual dimension which is indivisible and beyond the sum total of all its elemental movements.\textsuperscript{44} This paradoxical function of space and time--expressing both \textit{multiplicity} and \textit{unity} in the material universe--is finally a philosophical problem.\textsuperscript{45}

Panikkar proposes the notion of the "elemental \textit{rhythm} in nature" which includes the physico-mathematical and philosophical senses of time: it recognizes a certain quantifiable \textit{natural unity} in the multiple physical processes of the world; and it affirms an immeasurable \textit{natural rhythm} which is, in essence, an expression of the cosmological unity--and multiplicity--of the universe.\textsuperscript{46} Furthermore, he states:

\begin{quote}
The real time of material things . . . is nothing other than the specific form of how beings, in their existence, are integrated into the harmonious concordance of all created things, . . . . Time is not anything other than the rhythm with which bodies move towards God. Having arrived at their goal, they culminate in their return—in such a way that, at times, matter demonstrates a stronger urge than the human being—, and then
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\textsuperscript{44} \textit{Ontonomia}, 344f., 350f.

\textsuperscript{45} \textit{Ontonomia}, 316.

\textsuperscript{46} \textit{Ontonomia}, 349f.
there will be the fullness (of time) and "time will be no more."\textsuperscript{47}

Evidently, Panikkar's notion of cosmological time as the \textit{rhythm of the universe} reflects his consistent pattern of moving beyond science and philosophy to introduce a transcendental or theological voice into the conversation. While he appears to take this transcendental component as a `given', he is concerned to show that, without it, neither science nor philosophy is capable of carrying the burden of a total hermeneusis. Another feature of this pattern--evident in the notion of the rhythm of the universe--is his attempt to formulate an integrating principle which is capable of uniting classical concepts with modern-scientific findings.

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\textsuperscript{47} \textit{Ontonomia}, 351f.