

## BOOK REVIEW

**Raphael Neelamkavil, *Physics without Metaphysics?* Bangalore: Dharmaram Publications, 2006, pages xxvi + 382, ISBN: 8186861-89-0.**

In the recent history of philosophy, an obvious shift has already taken place. While almost all philosophers attempted to address the perennial questions that intrigued humanity from its inception by way of formulating rationally ‘consistent’ systems of thought – either by focusing on the object or the subject, as the case may be – a number of prominent thinkers have questioned the validity of such systematisations, as no system comes up neutrally. They are convinced of the fact, for example, that the so-called *a priori* is no more completely *a priori*. In fact, there are many factors that have colluded to give rise to any thing that is said to be purely rational. Indeed, human reason itself is said to be the product of myriads of influences, spread through the whole history of human existence. The trend, therefore, is to challenge and overthrow all systems that have been accepted as valid in providing answers to the perennial questions, and to move beyond the boundaries of systems with the hope of striking a better understanding or grasp of reality. Although this deal seems to be quite captivating, especially among the neophytes, the fundamental issue continues to haunt us: Can human mind understand without a framework suitable to its nature, that is, in an absolute vacuum? Can reason try to understand the inner recesses of reality – which, in the traditional understanding requires a move from physics to metaphysics – just by unsubscribing to all systematic schools of thought available to us down through the centuries? Can rationalisation be nothing but anti-systematisation, leading to bits and pieces, whims and fancies, and the whispers of the moment, intelligible or unintelligible?

As Postmodernity has become a catchword in many a philosophical circle, and many researches are being carried out to disprove the absolutist claims made by old and new systems of thought, I wonder whether we can totally be freed from systematisation. In fact, a blanket rejection of systematisation will be suicidal to philosophical deliberations, as human mind cannot function outside a framework of its own, if at all it should make any sense. Moreover, I tend to think that Postmodern thought has gone astray from its target. It is true that the absolutist understanding of

many a previous thinker or school of thought should be challenged; if not, it would be a blatant denial of the creativity of human reason. Moreover, Postmodernity brings to our attention that nobody can give the final word on the understanding of truth; we do philosophise, but within a framework which needs to be constantly challenged and overcome. Indeed, philosophising must remain an open project, accessible to and extendable by the entire humanity.

The same dynamics could also be located in the constant struggle between physics and metaphysics, in their attempts to nullify each other, or to win over each other. The medieval glory of metaphysics shelved during the Enlightenment, physics had its field day: an unending saga of success enjoyed by the modern sciences and their applications in different areas of human need have made the contemporary humans shun any thrust on metaphysical dimensions of reality. The questions such as ‘what is reality’, ‘what are the dynamics of reality’, etc., are usually answered within the parameters of physics; for many, only such answers are intelligible. Indeed, any answer that is beyond the terrains of verifiability is fashionably rejected as ‘non-sense’. The trend, in general, seems to belittle and ridicule the value of that which cannot be given to us in observables and measurables: physics and its principles, in particular, seem to reign supreme, and to a good number of physicists they are undisputable and absolute! Thus, physics, without recourse to any metaphysical understanding, apparently tries to master reality. To many, therefore, what is said by the physicists is the final word on the nature of reality.

It is against the backdrop of these two trends – the philosophical arrogance of Postmodernity and the omniscience of physics in having copyrighted finality in understanding reality – I find the relevance and daring nature of Raphael Neelamkavil’s earnest research in ‘Einaic Ontology’, an attempt to re-capture the lost sense of the real, by taking recourse to philosophy and physics, and many other allied disciplines.

In his *Physics without Metaphysics?* Raphael Neelamkavil successfully launches an articulation and defence of the ontology behind all sorts of philosophical endeavours, especially the philosophies of physics, astrophysics, and mathematics. It presupposes the history of ontological categories and scientific categories (space, time, cause, mass, etc.) from Plato and Aristotle through the modern theories in physical sciences to the twentieth century scientific ontology. His masterly focus, in

particular, on Aristotle, Kant, Bohr, Einstein, Armstrong, Strawson, Quine, and Heidegger, and, in general, on thinkers in the philosophies of physics and mathematics, analytical epistemology and analytical ontology, fructifies in giving rise to the mutually collusive 'Einaic' categories of cosmology-epistemology-ontology.

The search in this undertaking begins by questioning the ability of purely classificational categories to do authentic scientific ontology, and with an admission that all that there are to Reality in ontological commitment are: (1) particular token entities (processes), (2) ontological particulars (species), (3) epistemologically connotative universals (species names, qualities, etc.), (4) ontological universals (*qualia* / ways of being) in processes, and (5) totalities of entities / processes. Of these, substances – tokens and totals – are transcendentals, and universals – connotative species names, connotative qualities and ontological *qualia* – are transcendentals. He proposes to transcend this problem by using a new set of cosmological, epistemological and ontological categories that are maximally classificational, ideal, provincially singleton-case, and theoretically *a priori*. All of them, as Neelamkavil claims to show, are necessarily probabilistic and transcends particularism by the ever-widening nature of universals.

In general, Raphael begins his articulation based on certain assumptions: (1) the traditional categories equivalent to substance are to be maximized by its unique Transcendent domain, i.e., Reality-in-total; (2) the connotative presentations of the various categorial attributes in consciousness are to be maximized by the epistemologically connotative and Transcendently Transcendental universal of universals, i.e., the concept of Reality-in-general; and (3) ontological universals active at the processual-relational-essential aspect of beings are to be maximized by the verbal, nomic, nominal and Transcendental universal, namely, the To Be of Reality-in-total. Maximization of transcendentals is by inductive generalization, and that of transcendentals is by inductive totalization. These make their mutual collusion and implication naturally generative of systems that are most truth-probable by reason of their idealistic coherence, theoretical pragmatism, probabilistic relativism, and, finally, realistic correspondence of results with facts.

The proposed categories have been argued out from the points of view of contemporary philosophy of physics, analytical philosophy of knowledge, and analytical plus some continental philosophy of being. First

of all, the work seems to be very informative of various contemporary analytical trends related to its field of study. Secondly, it delves into the radically cosmological, epistemological, and ontological questions typical of the interface of scientific and philosophical discourse.

Against the Kantian epistemological approach, Raphael attempts to philosophically overcome the phenomena-noumena divide by an ontological approach to the cosmological category of Reality-in-total, which is the uniquely continuous substance that includes all possible (actual) worlds. To procure validity to this concept of substance, he moves to an analysis of the deep-seated scientific-instrumentalistic difficulties in Quantum Mechanics' manner of cutting up its object into a mere statistical phenomenon, which is conceived to be a wave at one moment and a particle at another, without any ontological commitment. He shows how this dichotomy may be overcome scientifically and how Reality may be conceived as thoroughly continuous – a curious nicety, indeed. Soon he moves to the foundations of the Special Theory of Relativity to fill up all possible values of energies and velocities in Reality-in-total as conceivable at the broadest possible realm of “all possible worlds,” by a succinct argument in favour of the actuality of all possible velocities. In fact, he is by now on his way to derive the concept of Reality-in-total that is in all respects thoroughly continuous. This process allows him to ontologically bridge the phenomena-noumena divide in the concept of the maximal substance, Reality-in-total. Thus, he proposes Reality-in-total as the ontological-cosmological ideal of all discourses on the Worlds, with all its objectual-causal roots, which may possibly be in the Divine too. This allows him to claim that physics cannot be done without a scientific metaphysics: “genuine physics is impossible without Einaic Ontology / metaphysics!” (331).

He proceeds, then, to show that the category of Reality-in-total does not stay alone. It needs the support of its theoretical, conceptual, ideal category. He comes out with a well-knit justification of the need of universals in epistemological, cosmological, and ontological discourses. He derives his justifications in a face to face encounter with twentieth century analytical thinkers, who do not – or, partially and particularistically do – favour the use of universals in discourse. He makes also a contribution to the philosophy of universals by bringing clarity to the concept of the universal, i.e., by differentiating connotative-conscious (epistemological) universals from ontological universals that are

objectually and probabilistically present (“over there,” by an ontological commitment) in processes in their relational realm. This allows him to conceive of the connotative, inductively most generalized, the universal of all universals – Reality-in-general – as the epistemological ideal category of all ontological endeavours. He favours treating connotative universals and Reality-in-general as probabilistic because, ever after the Incompleteness Theorem of Gödel, we are not justified in fixing meanings of definitions and terms or validity of truth-statements as absolute. Instead, we must go on pushing axioms and the definitions of primitive and derivative notions, backwards into more general and succinct ones, in systems of any ontological order. So, connotative universals, which are presupposed in concepts, and hence, truth statements too, are ever-widening and probabilistic.

Finally, Raphael moves to the purely ontological Transcendental that makes both Reality-in-total and Reality-in-general possible. He presents a concept of the Transcendental To Be, the supra-categorical category beyond the ways of being (*qualia*) and the to be of entities / processes – which seems to be an improvement beyond the traditions of the concept of Being. This is the maximization of all ontological universals by inductive generalization, which, in turn, is based on inductive totalization. But, this goes counter to ontological particularism, which, in all its forms, does not go beyond tokens and their immediately wider universals! Confident of the suitability of the new trans-classificational category of the To Be proper to Reality-in-total for ontological consumption, he proposes that we can no more do scientific ontology merely by classificational categories, for they are particularistic. The author is aware of the fact that it is a handicap for science and philosophy at once to do science and regional ontologies without the most generally probabilistic and self-transforming scientific ontology. Particularism is the backbone of science without ontology. He highlights the problems of particularistic ontologies by making an in-depth study of the particularistic, linguistic, and ontological presuppositions in Quine, Strawson, etc. Without conceding the adequacy of any ontological thinking or scientific categories to the thinking of To Be, Raphael contends that we cannot at all justify any ontology, particularly scientific ontology! Moreover, scientific ontology possibilizes science and, hence, without Einaic thinking, science too is not what it can and ought to be. In short, only maximal categories can possibilize reality-in-particular and the discourse on actual entities / processes in the sciences! Moreover, by

reason of the partiality of particularistic ontological universals with respect to the processes involved, each such universal refers to other universals and, hence, ontological universals too are probabilistic.

This probabilistic-universalistic inclination in thought allows this research to transform ontology, particularly scientific ontology, into Einaic Ontology, which is a pragmatic amalgamation of (1) Einaiology, which studies To Be in terms of Reality-in-total and Reality-in-general, and (2) General Ontology, which treats of Reality-in-total in terms of To Be and Reality-in-general. Due to the collusive nature of the three categories, one can never do any one of these two sciences in isolation from the other. This makes Einaic Ontology not only viable, but also ideal and inevitable, universalistic and probabilistically flexible, thus, frameworking the foundations of ontologies beyond metaphysical absolutism of ideal reifications and Postmodern, skeptic, or sophistic absolutism of relativisations.

In conversation with *Physics without Metaphysics?* I realize that this sort of ontology is also a scientific ontology, since the category of Reality-in-total is the maximized cosmological category of the sciences, which is potent enough to make physical reality, processes, and experiments possible. Although Raphael's work creates only the kernel for a new scientific ontology, it seems to hold the promise of further elaborations and the development of an entire system of philosophy in itself. Given the author's earnestness visible in this venture, especially in this text, I am hopeful that many of us would live to see more penetrating and extensive researches in the field of Einaic Philosophy, capable of shedding brighter light into the nature of reality, and to answer the perennial questions that keep us haunting in the realm of philosophical thinking.

I deem it important also to draw the attention of the reader to an Appendix that juxtaposes the concept of the verbal and aletheial Being, common to both earlier and later Heidegger, with the slightly different, but systemic, concept of the nominal-verbal To Be, co-extensive only with Reality-in-total, which Raphael proposes for collusive, probabilistic, and systemic reasons. He seems to hold that both the earlier and later Heideggerian concepts of Being are still anthropic and epistemic, because they do not give *a priori* objectual validity (i.e., based purely on the mind-independent and trans-phenomenal *fact* of Reality-in-total) beyond ordinary cognitive apriority, (1) to To Be as the Transcendental beyond *Dasein*'s appropriation of it in himself and beings, (2) to Being's giving

itself to *Dasein*, and (3) to Being's enowning of *Dasein* and Being's projecting open (*Entwurf des Seins*) of *Dasein* within and out of Being-thinking. Raphael argues that such a Being is comparable to the connotative-epistemological category, Reality-in-general, which is the giving itself of To Be in human consciousness' appropriation of it as the connotative universal of universals. I think, with this interesting suggestion, combined with his Einaic Ontological evaluation of earlier and later Heidegger and demonstration of the exact Einaic Ontological difference between earlier and later Heidegger, this Appendix would invite both appreciative and critical evaluations by those ready to attempt beyond Heidegger.

Although the subtlety of the analysis carried out in this research and the complicated and complicating terminological fiesta that abounds the work may create an impression of an 'arm-chaired' philosophical discourse, it is specifically oriented towards practical import as well. The changed scenario of philosophy – especially its need to speculate and rationalise in collaboration with scholars who are involved in research in many other fields, particularly in doing science – is well aware that many among the best of the minds are involved in and committed to scientific investigations. The new scientific theories that have come up in the last few decades have significantly altered human conception of the reality in general, though without an anchor to hold on to in the vicissitudes of constant flux and rational unrest. So, the practical intent of Raphael's project is to draw from these theoreticians, and in attempting to go beyond them, he envisions the possibility of pioneering a novel way of doing ontology, not for its own sake, but for a genuine understanding of reality, which is the rationalised goal of all human searches. In this context he is categorical as far as his findings are concerned: "Einaic Ontology is a speculative, scientific ontology in the sense that it makes possible and transcends the categories of the sciences" (321). Moreover, he contends that the Einaic categories that he has justified in this work are applicable to their cosmological, epistemological, and ontological categorical concepts as well.

The novel perspective that has been unveiled in this work is a promise. If the theories available in the known history of philosophy could not settle the issues that intrigued humanity with any definitive answer, and if the continued search for answers is the duty of every human being endowed with rationality, *Physics without Metaphysics?* and its

path-breaking theory of Einaic Ontology are worth our serious consideration. They hold an impressive promise for doing philosophy that looks for ultimate answers, especially amidst the myriads of theories that prop up every other day. Indeed, even for Raphael, this shall not be the final word in a philosophical settlement on the nature of reality; it is an initial but courageous and firm step, a step that must be pursued further to unveil and traverse unforeseen horizons in encountering and understanding reality.

**Saju Chackalackal**