

A consciousness-based model of physics

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Abstract: Following the dominant Indian philosophical tradition, an ultimate and intrinsically indefinable reality (UR) is postulated. This relates to the world as a substance that constitutes it, a consciousness that contains it, and an infinite quality/delight that experiences and expresses itself in it. By tracing a descending series of poises between the infinite and the finite, this article shows in outline how space emerges, how UR acquires the aspect of a multitude of localized selves, how quality manifests itself through quantity, how consciousness becomes distinct from substance, how the original creative consciousness gets "involved" in mind, how mind gets "involved" in life, and how life gets "involved" in matter—in short, how the stage for the adventure of evolution is set. Light is thereby thrown on the nature of life and evolution. While the laws of physics turn out to be instrumental in setting this stage, they contribute next to nothing to explaining the drama played on it.

In keeping with the dominant Indian philosophical tradition, I posit an Ultimate Reality (UR). The intrinsic nature of this UR is (subjectively speaking) infinite bliss or delight and (objectively speaking) infinite quality or value. UR has the power to manifest itself, i.e., to give finite expression to infinite quality and to experience infinite bliss in finite forms. There are many possible poises of relation between the infinite and the finite and, corresponding to them, many possible worlds. Alternatively, different such poises may successively become operative in a single world, as they appear to do in the evolving manifestation in which we participate.

The primary poise between the infinite and the finite antecedes the familiar dichotomy of consciousness and substance. That by which the world exists (UR qua all-constituting substance) is still identical with that for which the world exists (UR qua all-containing consciousness), and it is coextensive with the world.

In a secondary poise, UR, adopting a plurality of viewpoints, acquires the aspect of a multitude of localized selves. Because they are localized, they see things perspectively, from a distance and from

outside. The familiar dimensions of space thus have come into being: viewer-centered depth and lateral extent. Concomitantly, the dichotomy of consciousness and substance has become a reality. For "content of consciousness" can be synonymous with "determinations of substance" if and only if there is but one consciousness and one substance. The content of a localized individual consciousness cannot be isomorphic (and therefore cannot be identical) with the determinations of a localized individual substance.

UR manifests itself by presenting itself to itself. Insofar as it manifests itself, it acts as a creative force. Insofar as it manifests itself *to itself*, it acts as a creative consciousness. It acquires the aspect of a multitude of localized selves by means of a multiple concentration of this consciousness–force. A further departure from the primary poise of this consciousness–force ensues when the multiple concentration becomes exclusive. We all know the phenomenon of exclusive concentration, when consciousness is focused on a single object or task, while other goings-on are registered subconsciously, if at all. A similar phenomenon transforms individuals that are conscious of their mutual identity into individuals that have lost sight of it.

This further departure is the first stage of what, following Sri Aurobindo (2005), we may call "involution." The stages of involution follow the stages of the process of creation—the transition from infinite quality to finite form":

infinite quality → expressive idea → executive force → finite form.

Four ontological principles correspond to these states:

supermind → mind → life → matter.

The supramental dynamism encompasses the entire creative chain from infinite quality to finite form. Since it proceeds from a single self transcendent of individuality, it is all-powerful.

Individuals who have lost sight of their mutual identity also have lost sight of their essential identity with the qualitative aspect of UR. As a result, their consciousness is situated at the level of mind, whose characteristic occupation is the formation of expressive ideas. To the extent that mind serves to express quality, it receives the qualities it serves to express from a subliminal source. While its expressive ideas retain the power to realize themselves spontaneously in finite forms (and in their movements and actions), this power is curtailed by the multiplicity of minds, whose expressive ideas may be at odds with each other and thus mutually impede their realization.

Carried a step further, involution reduces consciousness to one identified with the principle of life. To the extent that this serves to execute expressive ideas, it receives the ideas it serves to execute from a source subliminal to it.

Carried further still, involution reduces consciousness to one identified with a finite form and its movements.

Finally, when involution is carried to its ultimate extreme, all *individual* operations of consciousness-force cease. And since these are directly responsible for the existence of finite forms, the result is a multitude of formless individuals, the so-called fundamental particles.

Welcome to the physical world!

The metaphysical structure just outlined obviously does a lot more than support a consciousness-based model of physics.

- By explaining how consciousness comes to be "involved" in a multitude of formless particles, it lays the foundation for understanding how consciousness evolves, for in a sense evolution is the reverse of involution.
- It imbues the terms "mind" and "life" with deeper meanings, characterizing them as intermediate stages (expressive ideation and executive force) of the process of creation or manifestation.
- It explains why we tend to construct our models of reality from the bottom up and why, as a result, we find it so hard to make sense of quantum mechanics (Mohrhoff, 2012).
- By equating the intrinsic identity of each fundamental particle to the substance aspect of UR, it bridges the skeptical divide between the real and phenomenal worlds.
- Whereas, in a materialistically conceived world, what ultimately exists is a multitude of intrinsically valueless particles or spacetime points (which some traditions fittingly refer to as "dust"), the ontology just outlined situates quality and value at the very heart of reality.
- It inverts the dated reduction of quality to quantity—color is nothing but a wavelength or reflectance—by making it safe to say that quantity is nothing but a means to manifest quality.
- It supports the view that

the physical sense-organs are not the creators of sense-perceptions, but themselves the creation, the instruments and here a necessary convenience of the cosmic sense; the nervous system and vital organs are not the creators of life's action and reaction, but themselves the creation, the instruments and here a necessary convenience of the cosmic Life-force; the brain is not the creator of thought, but itself the creation, the instrument and here a necessary convenience of the cosmic Mind. (Sri Aurobindo, 2005, p. 270)

- By identifying the source of reason "with the Knowledge that acts as Law in the world" (ibid., p. 129), it explains "the unreasonable effectiveness of mathematics in the natural sciences" pointed out by Wigner (1960) (as far as that goes) as well as the circular dependence of matter, mind, and mathematics pointed out by Penrose (Hut et al, 2006).
- It predicts the evolution of a species that will embody supermind as the human species embodies mind.
- Last but not least, it offers sweeping prospects of self-realization.

The consciousness-force at work in the world being infinite, there is no need to invoke a physical mechanisms or natural process to explain its workings. (Incidentally, this relieves us of the headaches caused by an ever-growing number of "no-go theorems," which appear to preclude naturalistic

explanations of the quantum-mechanical correlations laws.) What needs explaining is why this force works under self-imposed constraints, and why under the particular constraints we call the "laws of physics."

The intrinsic nature of UR being infinite delight, the ultimate purpose of a world is to experience and express this delight in finite forms. What if UR wants to experience the joys and excitements of discovery, surprise, conquest, and victory—experiences that we all value? It must get rid of its omniscience and omnipotence. What if it wants to carry this sacrifice to its logical extreme, to play Cosmic Houdini? It must manifest an effectively unconscious material world, governed by seemingly inflexible laws, and it must make it as hard for itself as possible to recover its knowledge and to regain its powers.

Setting the stage for the drama of evolution requires, at a minimum, the existence of sufficiently stable objects that "occupy space." Because the stage has been set by carrying the process of involution to its ultimate extreme, such objects will be "made of" finite numbers of objects that, being formless, do not "occupy space." The existence of such objects requires quantum mechanics, which in turn requires for its consistency virtually all of the features of the well-established laws of contemporary physics—the so-called standard model of fundamental particles and forces plus the general theory of relativity (Mohrhoff, 2002, 2009, 2011). In other words, the laws of physics are preconditions of the possibility of an evolving manifestation of UR. While instrumental in setting the stage for the drama of evolution, they contribute next to nothing to explaining the drama played on this stage. (They do of course contribute to explaining organisms in physicalistic/mechanistic terms to the extent that the predictions of such models are in reasonable agreement with the experimental data, but philosophically this is as useless as explaining the quantum world in terms of classical physics. As Richard Feynman said in the first section of his great Caltech lectures, "*philosophically we are completely wrong with the approximate law.*" The emphasis is Feynman's.)

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