Towards understanding anomalous correlations

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Open Review Commentaries

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If when thou sittest alone, still & voiceless on the mountaintop, thou canst perceive the revolutions thou art conducting, then hast thou the divine vision and art freed from appearances. (Sri Aurobindo, 1997, p. 437)

Not long after launching the PEAR Odyssey, Jahn and Dunne (2011) realized

that far more fundamental epistemological issues were at stake, and far stranger phenomenological creatures were on the prowl than we had originally envisaged, and that a substantially broader range of intellectual and cultural perspectives would be required to pursue that trek productively.

They came to believe

that the sundry anomalous physical phenomena that originally attracted our attention are deeply rooted in, and therefore significantly indicative of, a much more fundamental, profound, and ubiquitous metaphysical dynamic whose ultimate comprehension holds far richer potential for human benefit than the more explicit phenomenal curiosities with which we began.

By allowing "epistemological penetration beyond the superficial 'margins' of reality into the depths of its essential 'Source'," the tantalizing research reported by Jahn and Dunne provides "a glimmer of a vast, poorly charted domain for future human exploration, comprehension, and utilization." This domain is not as poorly charted as the authors believe. Its "fundamental, profound, and ubiquitous metaphysical dynamic" has been deeply and systematically explored by Sri Aurobindo, who outlined its geography in language that both integrates and transcends the dominant intellectual and cultural perspectives of the West and of the East.

While Nobel Laureate Romain Rolland looked upon Sri Aurobindo as "the foremost of Indian thinkers, who has realized the most complete synthesis between the genius of the

West and of the East," Sri Aurobindo never thought of himself as a philosopher or a thinker. "I had only to write down in the terms of the intellect all that I had observed and come to know in practising Yoga daily," he explained in a letter (2011, p. 70), "and the philosophy was there, automatically."

Forget about yoga studios. When Vivekananda introduced "yoga" into the national conversation, during his electrifying appearance at the opening of the august Parliament of Religions in Chicago on September 11, 1893, the last thing he had in mind was an exercise cult with expensive accessories. (Precious few of the estimated 16 million supple, spandex-clad yoginis in the United States, who sustain an annual \$6 billion industry, know that they owe their yoga mats to the Indian monk.) To Vivekananda, who had no interest in physical exertions, "yoga" meant just one thing: realizing God. Sri Aurobindo (2005, p.4) went further: after the subjective, individual realization, the objective, universal manifestation. What Sri Aurobindo means by "yoga" is the effort towards this realization and this manifestation — Nature's seemingly unconscious effort at first, but more specifically the individual's conscious participation. The metaphysical framework for this effort is laid out in his magnum opus, *The Life Divine* (2005, henceforth cited as LD), which first appeared serially in the monthly review *Arya* between August 1914 and January 1919.

For Sri Aurobindo, the Source of reality is (objectively speaking) an infinite Quality and (subjectively speaking) an infinite Delight or Bliss. This has the power to manifest itself in finite forms, and the closest description of this manifestation is that of a consciousness creating its own content. In the original poise of this consciousness, the self is coextensive with its content and identical with the substance that constitutes the content. A first self-modification of this consciousness leads to a poise in which the self adopts a multitude of standpoints, localizing itself multiply within the content of its consciousness. It is in this secondary poise, that the dichotomy between subject and object, or self and substance, becomes a reality.

The means by which the self assumes a multitude of standpoints consists in a multiple concentration of consciousness. A further self-modification of the original consciousness occurs when this 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 who are conscious of their mutual identity into individuals who have lost sight of this identity and, as a consequence, have lost access to the supramental "view from everywhere." Their consciousness is mental, which in Sri Aurobindo's terminology means, among other things, that it is concerned with the formation of expressive ideas. Although it receives the quality or qualities it serve to express from a source of which it is no longer aware, it nevertheless commands a wholly effective executive force. This consciousness is

closer to the one we are familiar with, but it does not suffer from the compromising consequences of an evolutionary past.

A further self-modification of the original consciousness produces individuals who are concerned with execution rather than idea-formation, individuals who receive even the ideas they serve to execute from a subliminal source. When carried to its extreme conclusion, the multiple exclusive concentration of consciousness results in individuals lacking even the power of executing ideas. And since this power is responsible for the existence of individual forms, the result is a multitude of formless individuals. We call them elementary particles and tend to think of them as the fundamental constituents of matter.

While the general theoretical framework of physics (i.e., quantum mechanics) tells us how the probabilities of the possible outcomes of measurements are correlated, it offers no clue to the mechanism or process by which measurement outcomes determine the probabilities of measurement outcomes. What is more, such explanations are ruled out by a growing number of "no-go theorems" (Bell, 1964, 1966; Kochen and Specker, 1967; Greenberger et al, 1989; Mermin, 1985, 1990, 1993; Klyachko et al, 2008). If the force at work in the world is an infinite conscious force, this should be no cause for concern, for it would be self-contradictory to explain the working of such a force in terms of physical mechanisms or natural processes. If this force works under self-imposed constraints, all we need to know is why it does so, and why under one particular set of constraints rather than another.

The reason why the spatial relations between the so-called fundamental constituents of matter are effectively governed by general relativity and the theories included in the Standard Model, is that these theories formulate necessary preconditions for an evolutionary manifestation of the infinite Quality/Delight that is the Source of reality (Mohrhoff, 2002, 2009, 2011). The physical forces are but the most limited and constrained operations of its power of self-expression; they are the residual interactions that are necessary for an evolutionary manifestation.

In important respects, evolution reverses the exclusive concentration of consciousness that culminated in the creation of matter. But evolution does not simply retrace the steps that led to the formation of a multitude of formless particles, for if it had done so, particles would have acquired forms. What happened instead is that spatial relations between formless particles came to manifest forms. When life appears, what is essentially added to material forms is the power to execute ideas, and when mind appears, what is essentially added to living organisms is the power of idea formation. The appearance of the human mind marks a turning-point in the evolution of consciousness and its inherent powers, for it makes it possible for the individual to consciously participate in the adventure of evolution.

The key to this participation consists in reversing the exclusive concentration of our consciousness in our surface waking self. By "pushing psychological experiment and observation beyond their normal bounds, we find... what a small and fragmentary portion of our being is covered by our waking self-awareness" (LD 576).

What we discover within this secret part of ourselves is an inner being, a soul, an inner mind, an inner life, an inner subtle-physical entity which is much larger in its potentialities, more plastic, more powerful, more capable of a manifold knowledge and dynamism than our surface mind, life or body; especially, it is capable of a direct communication with the universal forces, movements, objects of the cosmos, a direct feeling and opening to them, a direct action on them and even a widening of itself beyond the limits of the personal mind, the personal life, the body, so that it feels itself more and more a universal being no longer limited by the existing walls of our too narrow mental, vital, physical existence. (LD 290)

While our subliminal self contains "heights and profundities which no man has yet measured or fathomed" (LD 92), it is safe to say that no one has mapped its humanly accessible heights and profundities more meticulously than Sri Aurobindo.

The anomalies studied by Jahn and Dunne and the wider range of well-documented anomalous correlations between the physical and the mental are but residues or precipitates of the normal faculties and activities of our subliminal selves. What makes it possible to "take cognition of... appearances and images of things other than those which belong to the organisation of our material environment" is a "utilisation of the inner senses,—that is to say, of the sense-powers, in themselves, in their purely mental or subtle activity as distinguished from the physical which is only a selection for the purposes of outward life from their total and general action" (LD 70).

It is the subliminal in reality and not the outer mind that possesses the powers of telepathy, clairvoyance, second sight and other supernormal faculties whose occurrence in the surface consciousness is due to openings or rifts in the wall erected by the outer personality's unseeing labour of individualisation and interposed between itself and the inner domain of our being. (LD 555)

The subliminal origination of these anomalous capacities implies a caveat. Owing to its complexity, "the action of the subliminal sense can be confusing or misleading, especially if it is interpreted by the outer mind to which the secret of its operations is unknown and its principles of sign construction and symbolic figure-languages foreign; a greater inner power of intuition, tact, discrimination is needed to judge and interpret rightly its images and experiences" (LD 556). The results obtained by investigations that remain confined to what Jahn and Dunne called "the superficial 'margins' of reality"

cannot be conclusive or sufficiently ample because they are sought for by methods of inquiry and experiment and standards of proof proper to the surface mind and its system of knowledge by indirect contact. Under these conditions they can be investigated only in so far as they are able to manifest in that mind to which they are exceptional, abnormal or supernormal, and therefore comparatively rare, difficult, incomplete in their occurrence. It is only if we can open up the wall between the outer mind and the inner consciousness to which such phenomena are normal, or if we can enter freely within or dwell there, that this realm of knowledge can be truly explained and annexed to our total consciousness and included in the field of operation of our awakened force of nature. (LD 557)

In order that "a scientific investigation of the still hidden secrets and powers of mind and a close study of psychic and abnormal or supernormal psychological phenomena" fulfill itself,

the true foundation, the true aim and direction, the necessary restrictions and precautions of this line of inquiry have to be rediscovered; its most important aim must be the discovery of the hidden truths and powers of the mind-force and the life-power and the greater forces of the concealed spirit. Occult science is, essentially, the science of the subliminal, the subliminal in ourselves and the subliminal in world-nature, and of all that is in connection with the subliminal, including the subconscient and the superconscient, and the use of it as part of self-knowledge and world-knowledge and for the right dynamisation of that knowledge. (LD 910)

As the drama of evolution cannot be understood in terms of the stage on which it is played, so the "greater forces of the concealed spirit" cannot be understood in terms of the residual operations of force by which they are concealed. Matter — the stage — is itself the creation of a supramental consciousness, brought into being by carrying a multiple exclusive concentration of consciousness to its logical conclusion. The dependence of surface minds on the physical operations of brains can be explained by the Houdiniesque nature of this evolving manifestation, but the significant if unrecognized dependence of surface minds and of their supporting physical operations on subliminal processes eludes mathematical modelling. Far more so do the anomalies that bypass the brain-dependent operations of our minds.

Most certainly, these are extraordinary claims. How should we respond to those who demand the extraordinary evidence for these claims? Since direct evidence is accessible only to extraordinarily gifted and dedicated individuals, the best response would be to demonstrate just how extraordinary the claims of the materialist mainstream are. Certain regularities in our experience of the world are held (i) to describe all there *really* is and (ii) to account for the very experience from which the regularities are abstracted.

How extraordinary that something can (i) exist *by itself*, out of relation to any consciousness or experience, and (ii) exist *for someone*! How can something that exists by itself be experienced? How can there be consciousness of what exists by itself? Even more extraordinary is the claim that what exists by itself is adequately described by mathematical symbols and equations. Isn't mathematics a creation of the human mind? And is not this mind a creation of matter and evolution? How extraordinary, then, that matter should be governed by mathematical laws! And how extraordinary that mathematical laws describing certain regularities in our experience should be the very laws governing all that *really* exists! Where is the extraordinary evidence for all that?

These extraordinary claims not only prevent us from understanding how consciousness is possible but also are the reason why we haven't been able yet to make sense of the general theoretical framework of physics (i.e., quantum mechanics). Since it is impossible to explain how something that exists by itself can also exist for someone, materialists end up by explaining consciousness away, either by reduction or by elimination. If there is a real world "out there," the reason why it can be experienced by us is that it is the creation and the content of a consciousness subliminal to our surface minds. As Sri Aurobindo explains,

In the surface consciousness knowledge represents itself as a truth seen from outside, thrown on us from the object, or as a response to its touch on the sense, a perceptive reproduction of its objective actuality. Our surface mind is obliged to give to itself this account of its knowledge, because the wall between itself and the outside world is pierced by the gates of sense and it can catch through these gates the surface of outward objects though not what is within them, but there is no such ready-made opening between itself and its own inner being: since it is unable to see what is within its deeper self or observe the process of the knowledge coming from within, it has no choice but to accept what it does see, the external object, as the cause of its knowledge.... In fact, it is a hidden deeper response to the contact, a response coming from within that throws up from there an inner knowledge of the object, the object being itself part of our larger self; but owing to the double veil, the veil between our inner self and our ignorant surface self and the veil between that surface self and the object contacted, it is only an imperfect figure or representation of the inner knowledge that is formed on the surface. (LD 560–561)

As to the interpretative challenge posed by quantum physics: in the good old days of classical physics we had a theory that allowed us to predict how the distribution and motion of charges will affect the motion of charges. In addition to that, we believed that the theory explains how — by what physical mechanism or natural process — the former affects the latter. Not anymore. As Mermin (2009) put it so engagingly: "That lovely vision of the reality of the classical electromagnetic field ended when I learned as a graduate

student that what Maxwell's equations actually describe are fields of operators on Hilbert space. Those operators are quantum fields, which most people agree are not real but merely spectacularly successful calculational devices." Now that quantum mechanics is the general theoretical framework of physics, the old conjuring trick — the transmogrification of mathematical symbols and equations into physical objects and processes — no longer works. The reification of quantum "states" results in a model of reality that fails to accommodate the very events whose correlations the theory encapsulates.

Many researchers of consciousness-correlated physical anomalies (PK) or matter-correlated mental anomalies (e.g., RV) hope to make theoretical headway by invoking quantum mechanics. This is odd, since quantum mechanics offers no explanation of the phenomena it predicts. How then can it help in understanding phenomena it does not predict? To accept the reification of probability algorithms (e.g., wave functions) and then try to solve the pseudo-problems thereby created (e.g., what causes wave function to collapse) by invoking a nonphysical agent (e.g., consciousness) is a step in the wrong direction. To invoke this nonexistent "observer effect" to explain real experimenter effects can only be a further step in the same wrong direction.

We need to stop buying the unwarranted claims made by materialists. If we hope that by extending physical laws we might be able to explain how mind acts on matter, whether "normally" or anomalously, we implicitly accept the claim that physics explains how matter acts on matter. If dualists are blamed for failing to explain how anything nonmaterial can act on matter, the correct response does not consist in designing a pseudo-physical theory that purports to explain just this; the correct response is to stress that materialists do not even know how matter can act on matter.

We need to eat some humble pie. Once we are clear how little we actually know, and how much is wrong with what we thought we knew, we stand a better chance of finding the right way to proceed.

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