

Addressing Einstein's Question

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Abstract

In the author's work "A Mathematical Theory of Consciousness" it was shown that spiritual knowledge of an individual is multiplied with the perceived change in time to give a constant [1]. In the present note, the author utilizes this expression to mathematize a passage from Sri Aurobindo's Life Divine [2] and thereby possibly resolve EPR's enquiry in their paper on the description of physical reality provided by quantum physics.

Consider the following passage from Sri Aurobindo's Life Divine,

These are the Vedic clues. And we may accept from this ancient experience the subsidiary term "truth-consciousness" to delimit the connotation of the more elastic phrase, Supermind.

We see at once that such a consciousness, described by such characteristics, must be an intermediate formulation which refers back to a term above it and forward to another below it; we see at the same time that it is evidently the link and means by which the inferior develops out of the superior and should equally be the link and means by which it may develop back again towards its source. The term above is the unitarian or indivisible consciousness of pure Sachchidananda in which there are no separating distinctions; the term below is the analytic or dividing consciousness of Mind which can only know by separation and distinction and has at the most a vague and secondary apprehension of unity and infinity, -for, though it can synthetise its divisions, it cannot arrive at a true totality.

In light of this passage, we note that as spiritual knowledge increases, i.e. K increases from the dividing consciousness towards pure Sachchidananda, the perceived change in time decreases to zero. Next we note the key *ansatz* from the mathematical theory,

$$(\Delta x, \Delta t) = f(\Delta I). \quad (1)$$

Since

$$\Delta t \rightarrow 0 \quad (2)$$

therefore

$$f(\Delta I) \rightarrow 0. \quad (3)$$

Next, recall that the common f used in the mathematical theory was inverting. This implies

$$\Delta I \rightarrow \infty. \quad (4)$$

This key result can be interpreted as follows. We sample and get a certain entropy value from the sampling. We sample again and get another entropy value. These two values differ infinitely. Thus, if Sachchidananda samples, it gains infinite knowledge of the physical environment. On the other hand, had we started with a decreasing K , we would have reached the opposite extreme. In other words, when the dividing (ordinary) consciousness samples, it gains miniscule knowledge of the physical environment. This is a clear motivator towards abiding as Sachchidananda.

Furthermore, note that a quantum wavefunction is a real valued function over the reals [3]. Hence it potentially contains or represents infinite knowledge. Thus, to “know” the wavefunction fully, at minimum one must abide as Sachchidananda. Since no physical measuring device can ever do so, this explains why quantum mechanics yields only probabilities. Reality is complete, but our knowledge of it via physical devices must necessarily fall short of completeness - a clear separation between ontology and epistemology. Consider the famous paper on the completeness of the quantum mechanical description of physical reality [4]. The present work might bolster the stance of those esteemed authors.

References

- [1] Aman Chawla. A mathematical theory of consciousness. May 2025.
- [2] Sri Aurobindo. *Sri Aurobindo: The Life Divine*. Sri Aurobindo Ashram, 1970.
- [3] David J Griffiths and Darrell F Schroeter. *Introduction to quantum mechanics*. Cambridge university press, 2018.
- [4] Albert Einstein, Boris Podolsky, and Nathan Rosen. Can quantum-mechanical description of physical reality be considered complete? *Physical review*, 47(10):777, 1935.