

Sources of Quantum Voodooism

Quantum physics has been trivialized, distorted, abused, and exploited by New Age spiritual leaders for decades. What is their infatuation with it? What singles it out?

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In a series of episodes aired on her show in 2007, Oprah Winfrey talked about the then-new sensational New Age phenomenon known as *The Secret*, a movie by Australian film producer Rhonda Byrne, who later wrote a book of the same title that, due to Winfrey's enthusiastic endorsement, became an international bestseller. *The Secret* maintains that by merely *thinking* about losing weight, making more money, and falling in love, you can become thin, wealthy, and happily married. In one episode, Rhonda Byrne is joined by four "teachers"—well known self-help gurus who had chosen to disseminate the idea, much like the disciples of a prophet—in a speciously scientific discussion of the law of attraction, magnetic power, energy, frequency of mind vibration, and the vibration of the universe. All these buzzwords are the overture to the selling point of the conversation in which the author of *Chicken Soup for the Soul* proclaims, "If you go to quantum physics, we realize everything is energy" (see video at <https://www.youtube.com/watch?v=9qwZMVe2WVY>).

Marianne Williamson, former Democratic presidential candidate, designates "quantum realm of possibilities" as the source of "the good, the true, and the beautiful" and a solution to slavery, disenfranchisement of women, and segregation (Williamson 2019). She resorts to quantum physics to assert that "as our perception of an object changes, the object itself literally changes" (Williamson 1996) and that to change the world all we have to do is change our mind about the world. With this premise, would-be president Williamson's solution to all world problems is only a meditation away, and she has quantum physics to back her up! This is not a far-fetched, farcically concocted claim. When Hurricane Dorian was dashing toward Florida, Williamson advised her followers to stop it with their minds (Levin 2019).

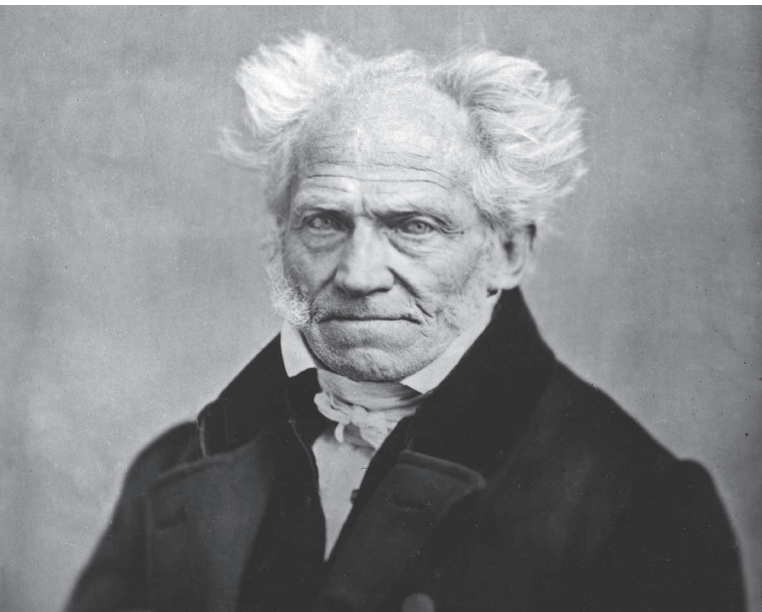
The Indian guru Maharishi Mahesh Yogi instructs Deepak Chopra to "explain, clearly and scientifically, how [certain meditation techniques] work." The result is a sophomoric concoction, which Chopra calls *Quantum Healing*, to explain its connection with Ayurveda (Hassani 2016). The publication of *Quantum Healing* was a milestone in the rampant trivialization of quantum physics by self-help gurus. Searching for the oxymoron "quantum spirituality" on Amazon.com yields several hundred titles. All have the word *quantum* in their titles or subtitles or on various pages inside. In these



Marianne Williamson

titles, one finds statements such as, "Quantum Angel Healing uses techniques rooted in the science of quantum physics, which proves that the thoughts and belief system of the observer influences the outcome of a situation" (Mora 2011); "[Quantum] physics suggested that the consciousness of the observer brought the observed object into being" (McTaggart 2002); and if that's too murky, "Quantum mechanics reveals that ... your perception determines the shape of your reality" (Peirce 2009).

How did quantum physics become such a ludicrous gewgaw among modern gurus? The influence of *Quantum Healing* cannot be underestimated, but Chopra was a medical doctor with no background in physics. Why did he choose quantum physics to advance his absurd "scientific" theory of Ayurveda? One clue may be found in the 1960s, when the unpopularity of the Vietnam War opened the floodgates of the Western peace movement to the mystical beliefs of the Far East, where the atrocities of war were on display. To dissociate physics from the "military-industrial complex," books such as *The Tao of Physics* and *The Dancing Wu Li Masters* drew



Arthur Schopenhauer

on quantum physics to paint physics as the embodiment of the “peaceful” Eastern mysticism. But why quantum physics? It turns out that the quantum physics–mysticism association goes back to the founders of quantum physics themselves, and the convergence of three factors facilitated that association: the infiltration of Eastern thought in Western philosophy, the rise of mysticism in the West, and the unique character of quantum physics.

Eastern Theosophy in Western Philosophy

As he was putting the finishing touches on his PhD thesis in 1813, Arthur Schopenhauer was introduced to a Latin translation of the *Upanishads*, ancient Sanskrit texts



Deepak Chopra

that contain some of the central philosophical concepts of Hinduism. To Schopenhauer, the *Upanishads* were the most elevating reading in the world, and he prophetically predicted that their philosophy would become the cherished faith of the West. He was so intrigued by the texts that he read passages of the book before going to sleep every night.

Schopenhauer’s intellectual path to Eastern theosophy begins with his critique of Kant’s *thing-in-itself*, a mind-independent entity that is beyond all human experience yet serves as the primary cause of our sensory perception. Schopenhauer maintains that our sensations cannot have an external cause, and that if we are to refer to the *thing-in-itself*, then we must come to an awareness of it, not by invoking the relationship of causality but by accepting that the world has a double-aspect, namely a “will” (a mindless, aimless, nonrational impulse at the foundational being of everything) and a “representation” (what we perceive around us). Will and representation are one and the same reality, regarded from different perspectives, like two sides of a coin, neither of which causes the other. The Hindu dualism of Brahman and Atman, with Brahman being “unlimited, unborn, not to be reasoned about, not to be conceived” (Müller 1884) and Atman being the true self, has a striking resemblance to Schopenhauer’s will and representation. This should come as no surprise, because by the time his major work, *The World as Will and Representation*, came out in 1818, Schopenhauer had been perusing the *Upanishads* for five years.

According to Schopenhauer’s philosophy, the great chain of being—the rocks, trees, animals, and human beings—is a complicated multitiered objectification of the meaningless will. The will’s final tier of objectification appears when our minds introduce the forms of time, space, and causality, not to mention logic, mathematics, geometry, and moral reasoning. When the will is objectified at this level, the world of everyday life emerges. Thus, the laws of nature, along with the objects that we experience, *are our own creation* (Wicks [2003] 2017).

Rise of Mysticism in the West

One of the unintended consequences of the physics that began with Galileo and Newton was the eventual decline in the traditional western religions. Laplace’s response, “Sire, I had no need of that hypothesis,” to Napoleon’s remark that there was no mention of God in Laplace’s *Celestial Mechanics*, and Nietzsche’s declaration—through Zarathustra’s mouth—that “God is dead,” created a moral vacuum by the end of the nineteenth century that could be filled only by a belief system that worshipped no supreme being. The filler turned out to be a salmagundi of spiritualism, esoteric Western philosophies, and Eastern thought.

Spiritualism was a movement rooted in the belief that the spirits of the dead existed and continued to evolve. Mediums were individuals gifted with the ability to communicate—in sessions known as séances—with the spirits and learn about the knowledge they had gained about God in the afterlife. Spiritualism gained enormous popularity among European intellectuals of that period. A prominent supporter of spiritu-



Arthur Eddington

alism was Sir Arthur Conan Doyle, the creator of the famous detective Sherlock Holmes. To assess the degree to which séances mesmerized the intellectuals of this period, suffice it to say that on one occasion, Harry Houdini, the American magician who became a leading opponent of the spiritualist movement, performed an impressive trick in the presence of Doyle. Houdini assured Doyle that the trick was pure illusion and that he was attempting to persuade Doyle not to endorse phenomena simply because he had no explanation for them. Doyle, nevertheless, refused to believe it was a trick and insisted that Houdini himself possessed supernatural powers (“Arthur Conan Doyle” 2019)!

The mediums’ trickery was so impressive that even some well-known scientists ended up advocating spiritualism. In 1905, the well-known medium Eusapia Palladino came to Paris, where Nobel-laureate physicists Pierre and Marie Curie and some of their fellow scientists periodically investigated her. In 1906, five days before his accidental death, Pierre Curie wrote about his last séance with Palladino: “There is here, in my opinion, a whole domain of entirely new facts and physical states in space of which we have no conception” (Quinn 1995).

Another movement filling the moral void was theosophy, a potpourri of Western philosophies and Asian thought such as Hinduism and Buddhism. Because science had undermined the essence of traditional Western religions, theosophy proclaimed itself as an advocate of science. By 1902, Rudolf Steiner had transformed the teachings of the theosophy movement into anthroposophy, which he advertised was the science of an objective, intellectually comprehensible spiritual world accessible to human experience.

The flood of mysticism ravaging through Europe in the first decade of the last century eventually got a foothold in the mainstream science. In 1920, Arthur Eddington, the famous British astronomer, published a popular book in which he

introduced the special and general theories of relativity to a nontechnical audience. But Eddington went beyond a mere exposition of the science. He arbitrarily subjected some of the mathematical symbols in the theory of relativity to his own philosophical interpretation and concluded, “All through the physical world runs that unknown content, which must surely be the stuff of our consciousness. . . . we have found that where science has progressed the farthest, the mind has but regained from nature that which the mind has put into nature” (Eddington 1920). Eddington’s attribution of mysticism to relativity was too artificial to catch the attention of the public significantly, despite the public’s appetite for the unification of science and the supernatural. For a “natural” unification, the public had to await the discovery of quantum physics.

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Eastern Theosophy in Quantum Physics

Quantum physics is a highly mathematical theory that predicts probabilities of physical phenomena involving subatomic particles, and *probability defies explanation*. But the founders of quantum physics, unaccustomed to the new notion, could not swallow this fact. They looked for terrains of knowledge beyond mathematics and physics that could “make sense” of the strangeness of quantum physics, and philosophy was the only secular branch of knowledge that



Werner Heisenberg



Wolfgang Pauli

contained a huge repository of possible explanations.

As the probabilistic nature of quantum physics assented to the absence of causality, the founders' philosopher of choice became Arthur Schopenhauer, whose emphasis on the mindless, aimless, irrational will "made sense" of the randomness of quantum physics. Either through Schopenhauer or directly, the founders of quantum physics—Niels Bohr, Werner Heisenberg, Wolfgang Pauli, and Erwin Schrödinger—all developed a strong affinity for Eastern theosophy and, regrettably, *tied their science to that mystical viewpoint*. Here is Bohr talking about the parallel between Buddhism/Taoism and quantum physics:

For a parallel to the lesson of atomic theory ... we must in fact turn to quite other branches of science, such as psychology, or even to that kind of epistemological problems with which already thinkers like Buddha and Lao Tse have been confronted, when trying to harmonize our position as spectators and actors in the great drama of existence. (Bohr 2010)

Heisenberg was most influential in injecting Eastern thought in quantum physics. In his 1929 journey to the Far East, he had a long conversation with the Indian poet Rabindranath Tagore, subsequent to which he claimed to have realized that all fundamental aspects of physical reality, which had been so difficult for him and his fellow physicists to "make sense" of, "was the very basis of the Indian spiritual traditions. 'After these conversations with Tagore,' [Heisenberg] said, 'some of the ideas that had seemed so crazy suddenly made much more sense'" (Capra 1989).

Heisenberg recalls that during the famous 1927 Solvay Conference, some of the younger attendants gathered in the lounge of their hotel to converse about religion and science and the contrast between the religious beliefs of Planck and Einstein. While Planck firmly believed in a Christian personal god that was outside the realm of science, Einstein's god was the immutable laws of nature. To Pauli, who was present at the gathering, Einstein's perspective allowed the unity of object and subject (Einstein himself detested such unification and vehemently opposed any attribution of subjectivity to science). Pauli saw Planck's separation of object and subject as a threat to the ethics and values of society and found the solution in a spiritual framework where faith and knowledge, science and religion, object and subject are unified. He expressed hope in Bohr's complementarity because it implied that "the idea of material objects that are completely independent of the manner in which we observe them proved to be nothing but an abstract extrapolation. ... In Asiatic philosophy and Eastern religions we find the complementary idea of a pure subject of knowledge, one that confronts no object" (Heisenberg 1971).

Pauli's belief in Eastern theosophy was tied to his great admiration of Schopenhauer, of whom he said, "Schopenhauer has exercised a lasting and fascinating effect on me, and he seemed to me to anticipate a future turn in the natural sciences" (Enz 2002). In fact, his veneration of Schopenhauer was so great that he defended the pseudoscientific notion of extrasensory perception because "Even so thorough critical a philosopher as Schopenhauer has regarded parapsychological effects as not only possible, but as supporting his philosophy" (Pauli 1994).

Schrödinger recalls how, after accepting a post as a lecturer in theoretical physics in Czernowitz, he had planned to spend all his free time acquiring a deeper knowledge of philosophy, having just discovered Schopenhauer, who introduced him to the *Unified Theory of Upanishads*. Schopenhauer's objectification by will is the essence of this Schrödinger statement: "Mind has erected the objective outside world of the natural philosopher out of its own stuff" (Schrödinger 2012). Schrödinger recognizes the paradox of individuals having different minds while there is only one world: "There is obviously only one alternative, namely the unification of minds or consciousnesses. Their multiplicity is only apparent, in truth, there is only one mind. This is the doctrine of the *Upanishads*" (Schrödinger 2012, 129).

Today's physicists, for the most part, are interested mainly in the theoretical and experimental ramifications of quantum physics, and in that pursuit we have been blessed with inventions such as transistors, lasers, and microchips, as well as the theoretical understanding of the tiniest constituents of matter and the largest galaxies. The majority of physicists brush aside the philosophical implications of quantum physics, because they have come to realize that if they try to understand quantum physics in terms of philosophy, they "will get down the drain" (Feynman 1967).

The founders' object-subject unification, which modern

gurus have renamed “the experimenter effects,” has played a prominent role in the academization of pseudoscience. Larry Dossey is the executive editor of *Explore: The Journal of Science and Healing*, a journal that, despite the scientific reputation of its publisher Elsevier, is devoted to pseudoscience. Dossey offers a list of suggestions on the future research in his field, prayer healing. His third suggestion is: “In view of the evidence for experimenter effects, the preexisting beliefs of prayer experimenters should be ascertained and recorded as part of the study” (Dossey 2008). In other words, the results of studies that negate the efficacy of prayer in healing could be attributed to the disbelief of the experimenters!

Messenger versus Message

Given a *printed* copy—to eliminate identification from handwriting—of a newly discovered piece of music, a musician specializing in Beethoven can not only identify it as the work of the master but also determine the period of the composer’s creativity in which it belongs. That cannot happen in science! Einstein presented his general relativity field equation on November 25, 1915, to the Prussian Academy. Five days earlier, David Hilbert, the great German mathematician, had presented a talk containing the same equation to the Royal Academy of Sciences in Göttingen (Thorne 1995). A historian of physics, given the printed version of the two equations, could not tell which one is Einstein’s and which one is Hilbert’s. Such simultaneous creativity—so common in science that Nobel Prizes in a given field are often awarded to multiple scientists—is unheard of in other creative areas; the notion of two artists creating the same *Mona Lisa* is preposterous!

Such simultaneous creativity is unheard of in other creative areas; the notion of two artists creating the same *Mona Lisa* is preposterous!

Scientific geniuses share many of the same kinds of strength and weakness that we possess. Outside their areas of expertise, they are quite ordinary characters who can be poor judges of politics, religion, morality, and philosophical outlook. (See “The Nobel Disease,” SKEPTICAL INQUIRER, May/June 2020.) Einstein encouraged President Roosevelt to initiate the development of atomic weapons; Linus Pauling, winner of two Nobel Prizes (chemistry and peace), was the originator of orthomolecular therapy, a dangerous alternative medical procedure; and James Watson, the codiscoverer of the double helical nature of DNA, is an ardent racist. But these mistakes are not made right because of the science of their makers, just as the science is not made wrong because of the mistakes of its discoverers. However, the beneficiaries of the self-help industry proclaim that just as Eroica cannot be separated from Beethoven, the founders’ mystical object-sub-

ject unification cannot be separated from quantum physics. They contend that ancient scriptures of the Far East are based on quantum physics. Nothing is further from the truth! The mystical views of quantum physics’ founders were published in proceedings and trade books with no scientific editing or reviewing, because the publishers who printed their physics would have refused to publish their baseless viewpoints, and the founders themselves were fully aware of that. An important fact is buried under modern gurus’ intense—and unfortunately successful—campaign of marrying their nonsense with quantum physics: *The messenger is not the message.* ■

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