MIND WITHIN MATTER: SCIENCE, THE OCCULT, AND THE (META)PHYSICS OF ETHER AND AKASHA

by Anna Pokazanyeva

Abstract. The intersection between quantum theory, metaphysical spirituality, and Indian-inspired philosophy has an established place in speculative scientific and alternative religious communities alike. There is one term that has historically bridged these two worlds: "Akasha," often translated as "ether." Akasha appears both in metaphysical spiritual contexts, most often in ones influenced by Theosophy, and in the speculative scientific discourse that has historically demonstrated a strong affinity for the brand of monistic metaphysics that Indian-derived spiritualities tend to foster. This article traces the relationship between these groups with special attention to the role of Indian concepts and terminology. More specifically, it argues that Akasha-as-ether comes to operate in a manner that bridges gross matter (of which the individual mind is part and parcel) with the notion of a subtle material and transpersonal mind—a version of panpsychism allowing for a coherent quantum monism.

Keywords: Akasha; ether; Indian philosophy; metaphysics; mind; monism; New Age; occult; quantum mysticism; Theosophy

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> The zero-point field of the quantum vacuum is not only a superdense energy field; it is also a super-rich information field—the holographic memory of the universe. . . . It makes sense to name this newly (re)discovered information field after ancient tradition's Akashic Field. The A-Field takes its place among the fundamental fields of the universe, joining science's G-field (the gravitational field), EM-field (the electromagnetic field), and the various nuclear and quantum fields. (Laszlo 2004, 56)

If the preceding passage leaves the reader in a state of genre-confusion, it is with good reason. Ervin Laszlo—Hungarian philosopher of science, systems theorist, and incredibly prolific author—manages a nearly seamless transition from quantum physics into the occult and back again. Laszlo's

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theory of the Akashic Field (named after what he understands to be a corresponding Indian concept) relies on a fairly thorough, if open-ended, understanding of the science to speculatively posit an intelligent cosmic substratum that explains everything from the perfect calibration of cosmic creation as it resulted from the Big Bang, to human evolution, to parapsychology. Unsurprisingly, he is a favorite within the field of alternative spiritualities. His books boast endorsements from New Age guru Deepak Chopra, and he has been featured on popular Internet sources such as Reality Sandwich, a digital publication by the Evolver.net community that bills itself as "a magazine of ideas for the transformational community," and the *New Consciousness Review*.

Appropriation of quantum theory by what we will come to refer to as metaphysical religiosity is, of course, nothing new. The most high-profile example of such usage might be the 2004 film *What the Bleep Do We Know!?*, which was produced by adherents of the New Age channeling-centric organization, Ramtha's School of Enlightenment, and featured sound bites from numerous physicists on the metaphysical implications of quantum mechanics. It is worth noting that these same scientists have since reported that their interviews were edited in such a way as to produce meanings they never intended (Kelly 2007, 101–02). Nor is the presence of "ancient" and non-Western concepts in this synthesis of ideas anything out of the ordinary. The New Age movement and its predecessors have historically had a strong affinity for exotic Asian philosophies. To complete the circle, transnational Indian movements can frequently be seen seeking the legitimating authority of scientific discourse. For instance, Zeller (2010) and Lowe (2011) have recently examined the ways in which the International Society for Krishna Consciousness and the Transcendental Meditation Organization have worked to engage with and shift the paradigms of Western science toward those of "Vedic science." Meanwhile, the Indian expat Chopra has become a well-established proponent of "quantum healing."

Sanskrit terminology, while generally pervasive in everyday language through terms such as "karma," "guru," or "pundit," becomes even more ubiquitous when one enters the realm of alternative—or "metaphysical"—spiritualities. There, terms like "yoga," "chakra," and "prana" abound. There is one term, however, that has historically bridged two rather unlikely worlds: "Akasha," often translated for reasons that will occupy this article at length as "ether." While far less widely recognized than the above examples, Akasha generally crops up in metaphysical spiritual contexts, most often in ones influenced by Theosophy, and the speculative scientific discourse that has historically demonstrated a strong affinity for the brand of monistic metaphysics that Indian-derived spiritualities tend to foster. The present article traces the relationship between these two communities with special attention to the role of Indian concepts and

terminology. More specifically, it argues that Akasha-as-ether comes to operate in a manner that bridges gross matter (of which the individual mind is part and parcel) with the notion of a subtle material and transpersonal mind—a version of panpsychism allowing for a coherent quantum monism.

Akasha—or *ākāśa*, as it is properly rendered in the original Sanskrit transliteration—is a slippery term at best. For the purposes of this study, I will adopt the usage of the sources in question, referring to "*ākāśa*" when operating in the Sanskrit-Indian context and "Akasha" when treating its appearances in the Western context. *Ākāśa* and ether first come together in the translations of early Indologists. As we will shortly see, there are undeniable analogies between the two terms that justify this move. However, translation is always situated in and therefore inseparable from the historical and ideological context of the translator and can thus have a way of investing terms with baggage that is not historically their own. In the case of *ākāśa*, this baggage comes not only in the form of Western esotericism but also contemporary scientific associations. Consequently, even as the Theosophists adopted and popularized the term as an exotic Oriental form of an occult subtle materiality, they cleared the space for this Indian metaphysical concept to become an elaboration of the theorized scientific entity that the occult mirrors. Indian teachers such as Swami Vivekananda (1863–1902) and Paramahansa Yogananda (1893–1952) relied extensively on these linkages in their work when presenting their teachings to a Western audience. Thus, by the time that the terminology is adopted by Laszlo in a primarily scientific—if speculatively so—context, it is invested with over a century of occultized usage. Indeed, Theosophy becomes the phantom linchpin that connects the term's Indian origins, its occult significations, and its scientific implications.

The careful reader will have noticed that when I first introduced Laszlo's use of the Akashic Field, I specified its name as originating from what Laszlo *believes* to be a corresponding Indian concept. Herein lies the rub. If one were to examine the original Sanskrit sources referring to the metaphysical role of *ākāśa*, one would be hard pressed to find any direct correspondence to Laszlo's understanding of its Anglicized counterpart. It is only by tracing the history of the term—its introduction as an exotic equivalent of ether by Theosophy and the reinforcement of this association by prominent Indian teachers— that one can understand Laszlo's usage.

Significance in Relation to Science and Religion

Laszlo is not the first scientifically minded individual to employ the terminology of Akasha. Nikola Tesla (1856–1943), Serbian-American engineer and inventor, once wrote an entire speculative treatise on the powers that human beings might acquire once they inevitably learned to control the

underlying universal principles of "Prana" and "Akasha" (Tesla 1930). Moreover, much has been made of the quantum mysticism—a marriage between quantum theory and "Eastern mysticism"—that fascinated early quantum physicists like Erwin Schrödinger (1887–1961), Wolfgang Pauli (1900–1958) and Werner Heisenberg (1901–1976). As Robert P. Crease and Charles C. Mann claim, quantum mysticism "had its origins in some statements by certain of the pioneers of quantum mechanics, blossomed in the 1970s and 1980s, and today appears to be on the verge of becoming as firmly entrenched in popular culture as astrology" (Crease and Mann 1990, 303). Yet, the metaphysical leanings of these early quantum theorists did not, so to say, simply materialize out of the ether. Such speculation has a history.

Juan Miguel Marin has conducted a study of the early controversies over quantum mysticism that arose between the originators of the theory. He most notably summarizes a statement made by Max Planck (1858–1947) to suggest that the controversy can be explained "as science, Christianity and Kant against the mysticism of a younger generation who preferred the more popular philosophy of Schopenhauer and his popularization of Buddhism and Hinduism" (Marin 2009, 816). The naturalistic arguments of seventeenth-century philosopher Baruch Spinoza likewise feature quite prominently in the thought of this mystically inclined cohort. However, although Spinoza's thought can account for the basic rejection of Cartesian dualism, it is ultimately the appeals to Indian categories that provide a fleshed out model of consciousness and the material basis of a nonindividuated mind that are necessary for quantum mysticism. It is also this Eastern turn that forms the counterpoint to the frustration of the dissenting Albert Einstein (1879–1955), who, as his biographer recalled, once "turned to me and asked whether I really believed that the moon exists only when I look at it" (Marin 2009, 817). Such philosophical debates were ultimately quelled by the uncompromising pragmatism of the war years and did not re-emerge, as David Kaiser informs us, until the latter half of the twentieth century when the speculative philosophical inquiries and counter-cultural lifestyles of a Berkeley-centered group of physicists calling themselves the Fundamental Fysiks Group would usher in a renaissance of interest in quantum research (Kaiser 2011).

However, though his examination of the documentary evidence is otherwise thorough, Marin refers only vaguely to "Eastern mysticism" to represent the views of proponents like Schrödinger. He is not alone in such an omission. Condemnations of such speculations rarely exhibit a complex understanding of what is entailed by the "mysticism" they are condemning and often boil it down, as Einstein does in the above statement, to a simplistic idealism. However, it is worth examining what this mysticism—though I would prefer here "metaphysics"—would have entailed and continues to entail for the individuals who choose to engage with it. In one of the

lectures that would come to be published as a volume titled *Mind and Matter*, Schrödinger states his belief that

> It is the same elements that go to compose my mind and the world. Subject and object are only one. The barrier between them cannot be said to have broken down as a result of recent experience in the physical sciences, for this barrier does not exist. . . . Still, it must be said that to Western thought this doctrine has little appeal, it is unpalatable, it is dubbed fantastic, unscientific. Well, so it is because our science—Greek science—is based on objectivation, whereby it has cut itself off from an adequate understanding of the Subject of Cognizance, of the mind (Schrödinger 2012, 128–30).

A close reading of the text makes it plain that what he is advocating amounts to much more than a shallow denial of the material world. The assertion rather advances an ontologically monistic perspective: one that erases the distinction between mind and matter without necessarily denying the reality of either.

Likewise, the controversy in which Marin finds Schrödinger and his colleagues embroiled can be seen as arising not out of a scuffle over philosophical idealism, but out of a much more complex disagreement over the (meta)physical relationship between mind and matter. The assumption that underlies Marin's accounts of the disagreements is that of "a mysticism that views the objective material world as dependent on the mind" (Marin 2009, 811). In the context of the "Eastern" ideologies in question, however, it would be more accurate to say that the objective material world and the mind (broadly conceived) are consubstantial and therefore fundamentally entangled. It is precisely the origins of this idea the history of ether-cum-Akasha comes to substantiate.

Significance in Relation to Metaphysical Religion

Many of the same individuals who were involved in developing theories of ether(s) as "scientific" concepts were also deeply invested in theorizing the possible functions of these substances as spiritual media. Such inquiries have trodden the hazy line of demarcation—that is, what distinguishes "real" science from pseudoscience and speculation—since even before scientists and philosophers occupied distinctly separate professions.

Quantum mysticism, if its current enthusiasts are any indication, is firmly situated in a strand of ideology called "metaphysical religion." This terminology is primarily adapted from the work of Catherine L. Albanese, who has given us the most thorough historical account and theoretical understanding of the purview of metaphysical traditions to date (Albanese 2007). In short, it is a strand of religiosity that, rather than being bound together by canonical texts or institutions, finds its common ground in an ideology that relies on a supremacy of mind, broadly conceived, and a fundamental logic of "as above, so below." While Albanese's definition

is framed against the backdrop of American religious history it relies on the same notion of cosmological "correspondences" as models developed and implemented by other scholars such as David J. Hess (1993), Antoine Faivre (1994), Wouter Hanegraaff (1996), and Olav Hammer (2003). These authors refer variously to "esotericism" and "occultism," sometimes positioning the latter as a subset of the former (Faivre) or additionally drawing a temporal distinction between pre- and post-Enlightenment traditions (Hanegraaff).[1]

I largely dispense with these terms in favor of "metaphysical" for two reasons. The first is that this latter term lacks the semantic baggage of its two counterparts, both with regard to the fact that the ideas in question are not necessarily "hidden" knowledge and also in avoiding the theologically and rationalistically pejorative connotations that may cluster around such heterodox ideas. The second is that my aim in this piece is to take the etymology of the term "metaphysical" quite literally. That is, "meta-physics," in addition to the various social and spiritual dimensions explored by Albanese as well as its traditional connotations within the field of philosophy, refers to a Western spiritual ideology that increasingly comes to identify itself in relation to the emerging scientific field of physics. It is a study of the study of nature, which abstracts but does not ultimately transcend its subject matter.

For Albanese, the least common denominator of metaphysical discourse is best articulated through the language of "energy" and "flow." She briefly notes that this energetic model generally conforms to scientific theories of ether in the nineteenth century before adopting the paradigms of quantum physics in the twentieth (Albanese 1999, 310–11; 2007, 505–08). On the other hand, Hammer examines the "atomic metaphysics" of later Theosophists such as Alice Bailey, observing with regard to her synthesis of ether as a fundamental form of matter that constitutes the energetic substratum of grosser atom forms, that "[i]t is as if a linguistic revision of the term 'matter' would exorcise materialism" (Hammer 2003, 269). Egil Asprem, who has argued for the need of accounting for the history of science when examining such co-optations (2011; 2014, 100–03), qualifies Hammer's interpretation and places Bailey within a larger historical context of "ether metaphysics." He further states that "[t]owards the end of the nineteenth century and well into the twentieth various attempts were made by continental physicists to get rid of the primacy not only of matter but also mechanics, by developing a worldview in which matter was reducible to purely electromagnetic phenomena" (Asprem 2011, 132). What Asprem's deft analysis ignores, however, are the Indian influences that are latent in Theosophical metaphysics. What differentiates Bailey and her ilk from other ether metaphysicians of the time is a persistent use of Sanskrit terminology—a use that we should take seriously as indicative of syncretized metaphysical commitments.

The energetic models of metaphysical traditions like Mesmerism, Spiritualism, Theosophy, and to a lesser extent Christian Science and New Thought, do not simply resemble scientific theories of ether; they frequently rely on and directly coopt these theories. Tracing ether/Akasha with such a trajectory in mind will thus help clarify two points: what is meant by the ubiquitous references to Eastern mysticism and why these ideas have proven to be so popular in the metaphysical spiritual community. In both cases, ether/Akasha allows us to fill in a missing link between the materialistic understanding of the cosmos and one that incorporates consciousness. The term's sudden appearance in metaphysical texts during the period that marks the introduction of Indian thought into Western metaphysical spirituality remains as a smoking gun that testifies to the importance of the concept that it represents. In other words, we cannot understand the full metaphysical significance of the more pervasively used "ether" until we examine the moment at which it became "Akasha." The shift towards an energetic monism is owed not only to the contributions of ether-based physics as Asprem has argued but also to the powerful fusion of these scientific theories with Indian metaphysical categories effected by early Theosophists and promulgated by Indian teachers in the West.

A Note on Consciousness

The richness of Indian theories dealing with subtle materiality and embodiment is rivaled only by the sectarian and historical diversity of explanations of the relationship between this materiality and consciousness. Due to the scope of this material and the relative brevity of the present piece, I will leave aside this larger context and focus instead on the specific signifier of Akasha, which comes to largely represent these various modalities as they make their way into the West. Much of the pre–World War II material with which this study is concerned would have been distributed by, or at least filtered through the syncretistic lens of, the Theosophical Society. More indigenously Indian variants would have come largely from Vivekananda's Vedanta Society, which, even when divested of its significant Theosophical influences, can be cautiously associated with a very specific brand of traditional Vedāntic nondualism (*advaita*). Later proponents of quantum mysticism, such as Indian-born theoretical physicist Amit Goswami, likewise refer to Vedānta as a grounding point for their theories.

In such a philosophical context, consciousness would occupy the highest rung on the metaphysical ladder. Consciousness—though not necessarily mind, which in this system has material properties—is the universal, eternal, and all-pervasive highest reality. It is the "Brahman" (the expansion, if translated quite literally) to which Schrödinger referred in his more speculative writings (Schrödinger 2012, 87), and in its nontheistic variants is considered to be without any quality or differentiation (*nirguṇa*). At this

point, Vedāntic systems generally present a modified version of the hierarchically based metaphysics of the Sāṃkhya system. The most subtle form of matter evolves out of this undifferentiated consciousness in the form of a cosmic intellect (*buddhi* or *mahat*), which is followed by an individuating ego-principle (*ahaṃkāra*), which then takes the form of either a sentient mind-body complex or an insentient material form.

For our purposes, it is not worth dwelling on the particulars of this system, which in any case may be articulated differently depending on context, but to recognize the multi-layered yet totally continuous system that connects material reality and consciousness in Indian thought. Thus, when we speak of "mind" we must be careful to specify which mind—or which level of mind—we are referring to. In a most basic sense, the vast majority of Indian systems are not troubled by a mind-body dualism, for both the individual and cosmic mind are ultimately material in nature. If anything, they posit a mind/body-consciousness dualism wherein the material psychosomatic cosmos is distinguished from—though often derivative of—the unchanging, immaterial, animating principle of pure being, which is finally collapsed in the most fundamentally monistic systems. My argument is ultimately targeted at establishing the emergence of a syncretized material cosmic mind, largely leaving aside immaterial consciousness itself.

Ākāśa in Pre-Modern India

Traditionally, the principle of *ākāśa* occupies a rather low level on this cosmic ladder. In its generic sense, *ākāśa* can be translated as "space," "atmosphere," or "sky." Of course, it can acquire a range of more specialized meanings depending on context. Of these, perhaps the most useful for our purposes is its role as cosmological element, an insentient material evolute. In the context of Indian philosophical discourse, *ākāśa* appears in the treatises of Sāṃkhya and Nyāya-Vaiśeṣika as well as in Jain and Buddhist metaphysics. In Sāṃkhya and Nyāya-Vaiśeṣika, *ākāśa* is commonly established as the substratum for sound, though the particularities of its nature vary. Because Vedāntic metaphysics—on which Vivekananda and other modern exponents of Indian thought overwhelmingly draw—chiefly coopt the framework of the classical Sāṃkhyan system, I will not go into the details of Nyāya-Vaiśeṣika's conception of *ākāśa*, other than to note that it differs chiefly in that it presents *ākāśa*, unlike the other four elements (*vāyu* or air, *tejas* or fire, *ap* or water, and *pṛthivī* or earth) as nonatomic and eternal (*nitya*).[2] In the Sāṃkhyan schema, all five gross elements (*mahābhūtas*) are considered to be evolutes of the five subtle elements (*tanmātras*), which are in turn evolutes of the hierarchical sequence of principles stemming from the unmanifest substratum of material nature (*mūlaprakṛti*). Here *ākāśa* is notable for two reasons: it is the most subtle

of the five *mahābhūta*s and consequently it is commonly seen as giving rise to the other four, thereby possessing a creative quality.

Later commentators wrestle with these particularities. For instance, in the eighth century the monistically inclined philosopher Śaṃkara catalogues several different philosophical arguments concerning the cosmic nature and all-pervasiveness of *ākāśa* before asserting that it must nevertheless be created and fundamentally different from the ultimate monistic reality of Brahman, constituting instead the first material evolute (Duquette and Ramasubramanian 2010, 521–24). Alternatively, in a sixteenth-century commentary on Sāṃkhya (*Sāṃkhyapravacanabhāṣya*), Vijñānabhikṣu asserts that there exist two kinds of *ākāśa*: the elemental *kāryākāśa*, which is atomic and noneternal, and the causal *kāraṇākāśa*, which is nonatomic and gives rise to the all-pervasive categories of space (*diś*) and time (*kāla*) that characterize *prakṛti*'s potential changeability (Duquette and Ramasubramanian 2010, 520). However, this distinction does not appear in classical Sāṃkhya, nor is it particularly representative of the commentarial tradition at large.

Thus, while *ākāśa* is certainly pervasive as both a term and general concept in Indian understandings of subtle embodiment and metaphysics, it constitutes only a minor component of these schemas. It is generally understood as only a single element of a larger framework and is only rarely envisioned as being anywhere near the originating basis of material reality at large. When it is used in a more generic sense, it can become descriptive of or even synonymous with aspects of absolute reality, but in these cases it loses its material quality, coming instead to represent the uniquely nonmaterial character of the absolute.

Though Indian notions of subtle materiality come to be assimilated into Western conceptions of the same, when we encounter the adapted variant of *ākāśa* it tends to assume something other than its original role. In responding to the Western framework of mind-body dualism, which associates mind with spirit and body with matter, both the Theosophists' and Vivekananda's schemas yield conflicting visions of what constitutes materiality. Following Sāṃkhyan and Vedāntic conceptions of *ākāśa* as the source of the other gross elements, both tend to equate the term with the source of materiality writ large. The position of the mind and its constituent *tattvas* thus becomes ambiguous, since such principles are considered to be aspects of materiality in the original Indian framework but not in the Western context into which they are introduced. It should be noted that although Western esotericism—on which the Theosophists and, through them, Vivekananda do heavily draw—can also tend towards a monistic metaphysics, as for instance in its Neo-Platonic and Hermetic variants, it does not generally ascribe a specifically material quality to mind. Consequently, the Anglicized Akasha, conforming to its analogous ethereal counterpart, at times comes to signify the bridge between

materiality and the mind, which is not quite spirit but is no longer matter as such.

Western Theories of Ether

The Western half of this early history begins, as things usually do in mainstream narratives of Western civilization and as Schrödinger lamented above, with the ancient Greeks. Concepts of *aer* (atmospheric misty air) and *aither* (a shining, blazing, fiery upper air) were employed in the metaphysics of sixth-century BCE Ionian philosophers in ways that indicate an already well-established common cosmological understanding. These two entities could be interpreted in variable ways along with a third, *pneuma* (the air of breath), to yield something like an ethereal cosmogony (Cantor and Hodge 1981, 4). However, it is not until the work of Aristotle that we see a full theory of ether. For Aristotle, the fifth element of the celestial *aither*—the other four being air, fire, water, and earth—has an earthly analog in the circulation of the animating force of *pneuma*, or life breath. The Stoics go on to equate the two, further associating them with the embodiment of the active principle of *logos*, which penetrates and acts upon matter to effect creation. The mechanics of this embodiment and action are, however, never fully elaborated (Cantor and Hodge 1981, 6).

Interestingly, ether plays no major role in the Hermetic textual corpus—a synthesis of Stoic, Platonic, Judaic, and Christian strains of thought most likely arising in Alexandria during the first three centuries of the Common Era—which is universally acknowledged as a major originating current of modern metaphysical traditions. An honorable mention goes to the Latin *Asclepius* text, where *aether* is cited as generating the form of intellect unique to man (Cantor and Hodge 1981, 9).[3] Otherwise, the semi-material substance would continue to appear in Christian theological writings whenever an ideological bridge between the realms of matter and spirit was deemed necessary, but its nature generally remained unelaborated.

No significant developments in the metaphysical status of ether occur until the concept reappears in the work of René Descartes (1596–1650), who proposed the existence of three elements, generally identified with fire, air, and earth, though not to be equated with their conventionally acknowledged physical manifestations. Movements of particles of the first element constitute heat. When these additionally exert pressure on and effect movement in the particles of the second element, the pressure transmitted by this interaction results in light. For Descartes, subtle matter, which serves as the medium for light and is identified with ether, comprises the second element permeated by the first. In turn, any changes observed in gross material bodies composed of the third element can be traced back to interactions with this subtle materiality (Cantor and Hodge 1981, 12). G. N. Cantor and M. J. S. Hodge, in tracing the history of theories of

ether, argue that although it is generally maintained that Descartes's ethereal hypotheses were "highly speculative" and that their "main influence was in convincing people of the coherence of mechanical explanation in general," many of the subsequent breakthroughs that inaugurate the emergence of modern scientific theories can be linked to acceptance, rejection, or modification of his proposals (Cantor and Hodge 1981, 14). Even the work of Isaac Newton (1642–1727), who largely distanced himself from both mechanical philosophy in general and Descartes in particular, cannot be interpreted without reference to the latter.

Newton was also largely responsible for the theory of the luminiferous, or "light-bearing," ether that would remain generally accepted in scientific circles well into the late nineteenth century. Keeping in mind that physics and metaphysics have not always shared the strictly delineated border they do today, it might be safely said that in the eighteenth and nineteenth centuries ether was primarily a scientific concept. In fact, Newton theorized several different ethers, which were not always altogether consistent with each other. Chief among these were theories of ether as a medium for the propagation of electromagnetic and gravitational forces. Newton was not always clear on the nature of this proposed ether, and in his second published paper on optics actually suggested that rather than constituting "one uniform matter" it was in fact a combination of "the main phlegmatic body of aether," which was inactive, with active and more subtle "aetherial spirits." He further suggested that this mixture could be condensed to produce diverse forms of matter. Newton even went so far as to suggest in an unpublished version of the manuscript of his third volume of *Opticks* that electricity could be equated with the subtle spirit that produced all natural phenomena (Cantor and Hodge 1981, 22–23).

Newton's theory of the ether in relation to light, which he understood as made of corpuscular particles rather than a wave akin to heat radiation, was actually substantially divergent from later understandings. Nevertheless, by suggesting that the refraction of light particles occurred due to interference of an ethereal medium, he established the basis for his successors to hypothesize that it was exactly this medium through which the newly established transverse wave of light must travel. This remained the reigning theory among physicists—even as several sets of experiments conducted in the late nineteenth century proved it untenable by failing to discover any such substance—until the need for it was gradually eliminated by the advent and acceptance of quantum mechanics.[4] However, ether had by this time gained a prominent position in metaphysical circles. Indeed, Newton introduced a variety of functions for his ether(s) that prefigure the various universal magnetic fluids that would later be used to explain the phenomena of the pseudo-medical tradition of Mesmerism and its more popular offspring, Spiritualism.

These connections are not at all coincidental, as Franz Anton Mesmer (1734–1815) was decidedly a student of Newton's work. Mesmer, borrowing heavily from Newton's more metaphysically inclined theories, set out to instrumentalize them in the sphere of medicine. Mesmer's dissertation, *Dissertatio Physico-medica de Planetarum Influxu* (1766), built on—or possibly plagiarized from—the ideas of Richard Mead (1673–1754), a prominent English physician, and adapted Newton's hypotheses to argue that bodies were universally subject to an all-pervading gravitation emanating from the stars. Mesmer subsequently expanded this idea to a general theory of a magnetic force that emanated not only from celestial objects but indeed from every physical body, resulting in his concept of "animal magnetism." Though Mesmer did not generally employ the language of ether in his work, he nevertheless spoke of a "fluid which is universally widespread and pervasive in a manner which allows for no void, subtly permits no comparison, and is of a nature which is susceptible to receive, propagate, and communicate all impressions of movement" (quoted in Fuller 1982, 5). He analogized the operation of this force to the manipulation of both magnetism and electricity and insisted that the latter were only naturally differentiated manifestations of a universal force that lay at the root of all phenomena.

Mesmer's magnetically based healing technique failed to win the approval of the medical community and after a special Royal Commission charged with investigating his work in 1784 failed to find any merit in his endeavors, his personal popularity declined and he spent the remainder of his days in relative obscurity. However, the larger tradition of Mesmerism was far from dead. After Mesmer's retreat from the public arena, the term "Mesmerism" took on a somewhat different connotation, chiefly propagated by his most notable disciple, the Marquis de Puységur, Amand Marie Jacques de Chastenet (1751–1825). In Puységur's work, Mesmerism was dissociated from all use of external props and physical magnets and became tied primarily to a somnambulistic altered state, often accompanied by clairvoyance. In this form Mesmerism would persist in three essential variants: the medical, the psychological, and the parapsychological (Crabtree 1988). All of these mesmeric strains signal a move away from a notion of a physical magnetic "fluid" and towards a mentally based model.

Popular Spiritualism, though heavily invested in paranormal phenomena, nevertheless appealed to a naturalistic cosmology as it called upon the inherent qualities of the human body. Spiritualist manuals co-opted the language of electromagnetic charges, specifying that "The medium may be a man or woman—woman or man—but in either case, the characteristics will be *feminine*—negative and passive" and instructing that these "positive" and "negative" individuals were to be arranged in an alternating fashion, turning the séance circle into an electric circuit (Braude 1989, 23–24). Consequently, though mediumship was generally considered to be a

very specific kind of talent, of which a particular—often gender-specific—temperament was an accepted indicator, the practice of Spiritualism was not limited to professional mediums. Parlor séances relied on the assumption that every human being possessed the energetic capacity for some mediumistic activity.

Popular practices such as table tipping and various simplified forms of automatic writing did not necessarily rely on the talent of a single medium but rather on the metaphysical principle of a universal substratum of magnetic energy that the participants could tap into in order to either contact the spirit world or even manipulate the energies to directly effect the desired phenomena. Indeed, scientists who exhibited an interest in mediumistic phenomena were far more likely to attribute their mechanics to the power of a living medium than to the spirits of the deceased (Raia 2007, 38; Brain 2013, 120). Whether it was the supranormal biology of ectoplasm, which yielded theories of "a vibratory organism that paralleled the ethereal undulations of the universe" (Brain 2013, 116) or the Spiritualistic uses of electrical discharge (Noakes 2007), such explanations tended to closely follow theories of ether. Thus, the popularity of Spiritualism largely relied on the assumption that every human being possessed the natural ability to interact with cosmic forces. While this ability manifested with greater strength in certain personalities, it was grounded in the inherent energetic potential of every human mind-body complex. The mind, both in its nature and its power, was thus understood as being metaphysically continuous with the material and spiritual cosmos that it inhabited.

The discrediting of paranormal phenomena grew into something of a cottage industry towards the end of the nineteenth century. However, for every scientifically minded detractor who decried the nonsense of parlor séances, there was an equally committed scientist who sought to demonstrate that such phenomena were not only real but thoroughly supported by the laws of physics (Raia 2007; Noakes 2008).

The Theosophical Synthesis

It is against this background that Theosophy emerged as both an organization and a body of thought. Inaugurated in a small New York City apartment on September 18, 1875, the Theosophical Society was co-founded by Henry Steel Olcott (1832–1907), an eclectic member of the New York urban gentry, and Helena Petrovna Blavatsky (1831–1891), a Bohemian expatriate of the Russian aristocracy. Both had had extensive ties with the Spiritualist movement.

The Theosophical Society would emerge as the single most significant early force in synthesizing and disseminating Indian ideas in a Western occult context. Blavatsky especially, though finding her initial grounding primarily in Western esotericism, would increasingly call upon her contact

with Oriental masters as a source of authenticity and authority. Blavatsky does appear to have travelled extensively between leaving her newly acquired husband, the vice-governor Nikifor Vladimirovich Blavatsky, in 1849 and turning up in New York in 1873. However, her exact itinerary during this lengthy period is largely uncorroborated and, while not strictly impossible, it is highly unlikely that a single white woman did in fact hike through the mountains of Tibet for several years in the mid-nineteenth century. Regardless of whether she had ever set foot on South Asian soil, however, Blavatsky was singlehandedly responsible for opening the floodgates of Indian categories that would over the next century so thoroughly suffuse Western metaphysical spirituality. Reciprocally, these same categories would return to the source in the writings of Indian Theosophists—or even more numerous Theosophical sympathizers—laden with new Western valences. Such was the story of *ākāśa*.

Blavatsky's command of Oriental wisdom was famously credited to a brotherhood of Masters—or Mahatmas, as they would later come to be called—whose presence spanned all the nations and ages of human civilization. When Blavatsky was not communing with the Masters through automatic writing, to which she attributes much of her literary corpus, they would communicate through letters "precipitated" from the ceiling as they materialized out of the subtle etheric realms. This was quite possibly the origin of one of Theosophy's most widely diffused syncretistic innovations and a concept that is especially relevant to the present study: the Akashic Record.

Blavatsky herself never uses the term "Akashic Record," but speaks of an etheric, astral, or Akashic (all of which she uses synonymously) level of reality, which exists just beyond the ordinary gross sphere of material nature. Her contemporary Alfred P. Sinnett (1840–1921) references the idea of "permanent records in the Akasa" in his *Esoteric Buddhism* (1883) when discussing the spiritual progression of the Buddha's many births. The concept has obvious parallels within Indian thought, specifically where dealing with the metaphysics of *karma*, the transmigrating self, and the subtle mind-body complex discussed above. No such function, however, is ascribed to *ākāśa* by any known Indian source prior to the nineteenth century. One might conjecture that later Theosophists drew primarily on these ideas when they eventually introduced the term into their discussion of subtle materiality.

Still, it seems even more likely that this idea of a subtle universal record emerged not out of ancient Indian arcana but out of the speculations of contemporary physicists. Scottish physicists Balfour Stewart and Peter Guthrie Tate propose in their anonymously published *The Unseen Universe* (1875) that "what we generally call ether may be not a mere medium, but a medium *plus* the invisible order of things, so that when the motions of the visible universe are transferred into the ether, part of them are conveyed as

a bridge into the invisible universe, and are there made use of and stored up" (Stewart and Tait 1875, 147). They assert that ether is thus a carrier of dissipating cosmic energies that results in "an arrangement in virtue of which our universe keeps up a memory of the past" such that "continual photographs of all occurrences are thus produced and retained" (Stewart and Tait 1875, 145) and indeed "produces a material organ of memory" (Stewart and Tait 1875, 148).

The particular Theosophical term for this concept is first used by Leadbeater in his *Theosophical Manual No. 6* (1886), derived from his earlier treatment of the "Records of the Astral Light," which he describes as a "photographic representation" of everything that has ever happened and may be accessed by an ascended being (the Mahatmas) or a clairvoyant (such as Blavatsky) for the purpose of gaining knowledge of lost histories and subtle truths.[5] Subsequent to their explication by Leadbeater, the Akashic Records are referenced by multiple Theosophist authors (Annie Besant, Bertram Keightley, Rudolf Steiner, and Bailey among others), who employ the term with various degrees of abstraction. At times the Akashic Records appear to be holographic imprints in an actual universal substrate of energy (i.e., the luminiferous ether) while, in other contexts, they are characterized as a sort of Neo-Platonic ideal realm. The term appears in derivative movements such as Steiner's Anthroposophy and Bailey's Arcane School, but also in the wider context of metaphysical spirituality.

At this point the reader might be prompted to recall the epigraph of this article—Laszlo's use of Akasha is fundamentally Theosophic (rather than "ancient Indian") in nature. This conflation should likely be forgiven on account of the fact that even Indian teachers, such as Paramahansa Yogananda, readily employ the term in its Theosophic sense. It does, however, demonstrate that appeals to Eastern mysticism by no means reference a timeless commodity and are themselves subject to historical innovation.

Blavatsky and her organization, which in its early days came under scrutiny and ultimate dismissal by the newly founded British watchdog of occultism, the Society for Psychical Research (SPR), are also notable in their careful insistence that they were interested in propagating a universal truth rather than a sectarian religion. The mission statement of the Theosophical Society, as articulated by Olcott, was to offer an alternative to both "theological superstition" and "tame subservience to the arrogance of science" (Campbell 1980, 29). Blavatsky herself was occasionally quite hostile to contemporary science, though this was due less to a fundamental disagreement with its claims than to her rejection of the materialistic reductionism that often accompanied them.

For Blavatsky, as for many metaphysical thinkers of her time, science was only beginning to glean the universal truths that esoteric philosophies

had uncovered long ago. On this account, her reasoning appealed in no small part to scientific thought, as she wrote:

> Until gravitation is understood to be simply magnetic attraction and repulsion, and the part played by magnetism itself in the endless correlations of forces in the ether of space—that "hypothetical medium," as Webster terms it, I maintain that it is neither fair nor wise to deny the levitation of either fakir or table. Bodies oppositely electrified attract each other; similarly electrified, repulse each other. Admit, therefore, that anybody having weight, whether man or inanimate object, can by any cause whatever, external or internal, be given the same polarity as the spot on which it stands, and what is to prevent its rising? (Blavatsky 1966, 244)

This passage represents perhaps the most particular rationalization of supranormal phenomena that we find in Blavatsky's writings. This is not to say that Blavatsky was unconcerned with metaphysics but only that rationalizing those metaphysics on the level of gross materiality was near the bottom rung of her priorities. She took for granted the notion of electromagnetism and its ethereal substratum and went the extra step—which was not an unreasonable one, given that the unity of all forces had been proposed by minds far more scientifically inclined than her own—of declaring them identical to the operations of gravitation. Thus she considered the levitating fakirs of India to be just as scientifically feasible as the tipping tables of Victorian parlors, both being accounted for by the magnetic manipulation of a universal force flowing through the ether that modern scientific experimentation was only just beginning to uncover.

Theosophical metaphysics largely follow an Indian Vedāntic framework, which in turn is an adaptation of the earlier Sāṃkhyan schema (see Figure 1). While Sāṃkhya simply features a tree of material categories that eventually branch off into subjective and objective dimensions, Vedāntic systems largely disregard purely objective concerns and instead group the Sāṃkhyan evolutes into three distinct and hierarchically arranged "bodies": the *kāraṇa*, *sukṣma*, and *sthūla śarīra*, or the causal, subtle, and gross bodies. The subtle body also comes to incorporate five vital breaths (*prāṇa*s), as well as three additional categories—*kāma* (desire), *karma* (seeds of action), and *avidyā* (ignorance)—which are specifically binding aspects of the subject, that is subjective qualities that prevent the state of enlightenment and cosmic oneness. Theosophical authors, beginning with Blavatsky herself, retain this basic division but expand on it—resulting in as many as five different categories of embodiment, as in Leadbeater's writings—and, even more importantly, shift the Vedāntic subtle mental aspects of intellect and ego to the level of the causal body, which they sometimes term together the "Higher Manas" (higher mind).

This displacement of the mental aspects results in a simplified subtle body, which is associated with the lower or desire-driven mind (Kama-Manas). The Theosophical subtle body comprises a triangulation of the

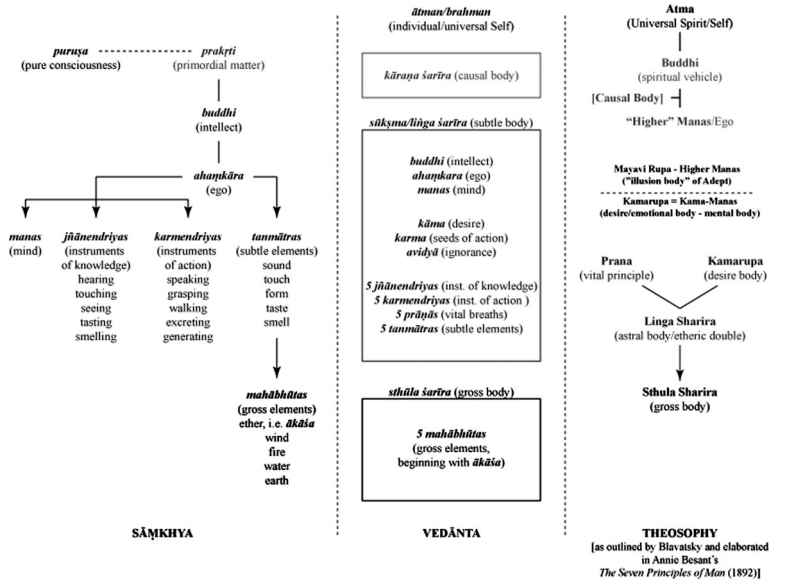

Figure 1. Comparative hierarchy of embodiment across Sāṃkhyan, Vedāntic, and Theosophical systems

Kamarupa (desire body), Prana (vital principle) and what Blavatsky originally termed the Linga Sharira, a Vedāntic term originally signifying the subtle body as a whole that she alternatingly identifies as the "astral body" or the "etheric double." Blavatsky and her successors never reach a systematic consensus on this framework and Blavatsky especially was prone to transposing Sanskrit terminology with little regard for its originating Indian systems and metaphysical hierarchies. Interestingly, though she applies both "astral" and "etheric" as terms that describe the Linga Sharira, she generally reserves the adjective "Akashic" for the plane of reality corresponding the Higher Manas principle. While making little sense from the viewpoint of translation, this distinction explains the later development of the Akashic Records—which this schema would seem to place on the causal level—as reflecting a much higher, almost universal, material reality.

Furthermore, the division between the etheric body and the Akashic plane appears contradictory only if one views the hierarchically arranged levels as somehow separate. It is more productive, however, to view these categories not as steps on a ladder but as the branches of a tree that, despite their differentiation, can nevertheless be understood as only extensions of a single trunk. Thus, while the "body" composed of ether is not quite identical to the "mind" composed of Akasha, the Theosophical framework effectively renders body and mind as comprising the same spectrum of increasingly subtle materiality.

The Unlikely Metaphysical Duo: Vivekananda and Tesla

The Theosophical framework, Akashic Records and all, would survive the effects of the SPR report discrediting Blavatsky's phenomena and would be elaborated on and propagated by Theosophists and Theosophical sympathizers of both Western and Indian backgrounds. The Society's membership figures, even if they could be effectively documented, reflect rather little of its actual influence, which is far more diffuse in nature.

Though the influence of Theosophy on modern Indian metaphysical thought can hardly be understated, it was certainly not the only wellspring of Western esotericism to make its contribution to the Bengali Renaissance (De Michelis 2004). This confluence of factors would yield the universalistic "scientific religion" that Swami Vivekananda's work purported to bring to the West following his initial debut at the 1893 World Parliament of Religions in Chicago. Due to a potent mix of nationalistic sentiment and no small amount of bad blood stemming from the cold treatment he had received from Theosophy's representatives at the Parliament when he refused to join their Society, Vivekananda was famously unaffectionate toward Theosophy. Nevertheless, affirming the spiritual power and scientific nature of the Indian system of yoga was essential to his argument as to the universal significance of its philosophy and it was Theosophy that had already laid the groundwork for such pursuits.

Establishing yoga as a science is fundamental to the overall thrust of Vivekananda's work—as indeed it would become for many of his successors (Alter 2004)—and it is precisely here that the elements that Elizabeth De Michelis has identified with his esoteric *Naturphilosophie*—namely what she calls the "Prāṇa Model"—come into play. As De Michelis has observed, Vivekananda's cosmology represents an odd departure from traditional Sāṃkhyan and even Vedāntic notions of cosmogonic emanationalism. Rather than relying on the commonly accepted cosmic substratum of *prakṛti* (material nature) and its composite *guṇas* (subtle qualities), Vivekananda identifies two primary universal principles: Prana and Akasha. In his most famous work, *Raja Yoga* (1896), he proceeds to describe their relationship as follows: "By what power is this Akasha manufactured into this universe? By the power of Prana. Just as Akasha is the infinite, omnipresent material of this universe, so is this Prana the infinite, omnipresent manifesting power of this universe. At the beginning and at the end of a cycle everything becomes Akasha, and all the forces that are in the universe resolve back into the Prana; in the next cycle, out of this Prana is evolved everything that we call energy, everything that we call force" (Vivekananda 1915, 167). As others have noted, Vivekananda was not a remarkably systematic writer. Even more significantly, he was not a metaphysician in the primary sense. Nevertheless, this schema is carried through the entirety of his collected works and therefore clearly constitutes a coherent

metaphysical vision. Moreover, other sections of the same text indicate that Vivekananda is undoubtedly aware of traditional Sāṃkhyan metaphysics. While it is true that *ākāśa* might have been seen as the origin of the material cosmos insofar as it gives rise to the four subsequent forms of gross matter in traditional systems, Vivekananda claims much more than this. In his conception, Akasha becomes identical to *mūlaprakṛti*, the primordial materiality to which all creation reverts at the time of cosmic dissolution. Occasionally, Akasha even becomes identified with Brahman, universal consciousness itself. Neither of these moves is generally substantiated by the Indian sources.

Whence, then, this preoccupation with "Akasha"? It should be noted that, in Vivekananda's understanding, Akasha is directly equivalent to the Western notion of ether, both in its classical and modern scientific form. This is not in itself surprising or overly interesting in that "ether" had previously been established as a common translation for "*ākāśa*" by contemporary Indologists and the two terms had also been identified in a multitude of Theosophical writings. However, it is only in the Theosophical material that this identification is understood to imply a particular cosmogonic role. Indeed, Vivekananda's otherwise odd conception of Akasha's role as primordial matter becomes much clearer when one considers the following passage from Blavatsky's *Isis Unveiled* (1877):

> The modern Ether; not such as is recognized by our scientists, but such as it was known to the ancient philosophers, long before the time of Moses; Ether, with all its mysterious and occult properties, containing in itself the germs of universal creation. . . . Electricity, magnetism, heat, light, and chemical action are so little understood even now that fresh acts are constantly widening the range of our knowledge. Who knows where ends the power of this protean giant—Ether; or whence its mysterious origin?—Who, we mean, that denies the spirit that works in it and evolves out of it all visible forms? (Blavatsky 1877, 134)

Despite Vivekananda's general lack of respect for Theosophy, he persists in this vein—presumably because of its intellectual currency both in the metaphysical West and among Indian intellectual elites—even when it raises schematic incongruities with more traditional Indian models. For instance, Vivekananda's description of the cosmologically linked mental states of yogic meditation directly conflicts with his references to the Akasha/Prana model of materiality,[6] which he nevertheless persists in advancing throughout the greater part of his literary corpus. Though the primordial and creative aspect of Vivekananda's Akasha is only tenuously substantiated by Indian metaphysics, it is heavily implied by the Theosophical model outlined above.

In this way, Vivekananda becomes, perhaps in spite of himself, an influential proponent of Indian-inspired Theosophical metaphysics. In addition to having had a notable influence on William James (1842–1910), one of

the foundational figures of humanistic psychology, toward the end of his sojourn in the United States, Vivekananda was in contact with Nikola Tesla, indicating in a personal letter that "Mr. Tesla thinks he can demonstrate mathematically that force and matter are reducible to potential energy. I am to go and see him next week, to get this new mathematical demonstration" (Vivekananda 1989, 78). Unfortunately, the demonstration never materialized, though there is evidence that the meeting did in fact occur. Moreover, Tesla's own writings indicate that he was quite in agreement with the spirit of Vivekananda's metaphysics and went as far as to adopt the language of Prana and Akasha to describe his theories, ultimately proposing that "to create and annihilate material substance, cause it to aggregate in forms according to his desire, would be the supreme manifestation of Man's mind" (Tesla 1930).

Tesla's legacy, which is now enjoying somewhat of a renaissance in popular culture, was largely forgotten following his death despite the fact that he left behind nearly 300 patents. For instance, though he made many crucial advances in the field of electrical engineering, it is Edison who is remembered as the father of the electric age because, as Tesla's modern editor Samantha Hunt put it, "he gave people something to dance to [with his marketing of the phonograph] while Tesla, with talk of death rays, lightning bolts, and extraterrestrials, gave a war-weary nation the creeps" (Tesla 2011, xvi). His reputation as a fanciful futurist whose aspirations included free energy and the aforementioned death ray (which was a "teleforce" weapon that Tesla hoped would bring about world peace) notwithstanding, Tesla was generally far less interested in psychic phenomena than some of his contemporaries. In fact, he recounts that he was once approached by "a body of engineers from the Ford Motor Company" who, rather than being interested in his turbines, informed him much to his dismay: "We have formed a psychological society for the investigation of psychic phenomena and we want you to join us in this undertaking" (Tesla 2011, 80). Tesla declined. Nevertheless, his general worldview may have put him more in line with such pursuits than even he himself knew, as he stated:

> The Buddhist expresses it one way, the Christian in another, but both say the same: We are all one. Metaphysical proofs are not the only ones which we are able to bring forth in support of this idea. Science, too, recognizes this connectedness of separate individuals, though not quite in the same sense as it admits that the suns, planets, and moons of a constellation are one body, and there can be no doubt that it will be experimentally confirmed in times to come, when our means and methods for investigating psychical and other states and phenomena shall have been brought to great perfection. (Tesla 2011, 105)

Tesla's most metaphysically inclined claims, however, originate from his "Man's Greatest Achievement," a short essay first delivered as an address in

1908 and subsequently reprinted in several newspapers across the nation in 1930. In this piece, Tesla adopts Vivekananda's cosmogonic model, stating:

> Long ago he [man] recognized that all perceptible matter comes from a primary substance, or a tenuity beyond conception, filling all space, the Akasha or luminiferous ether, which is acted upon by the life-giving Prana or Creative Force, calling into existence, in never ending cycles, all things and phenomena.
>
> The primary substance, thrown into infinitesimal whirls of prodigious velocity, becomes gross matter; the force subsiding, the motion ceases and matter disappears, reverting to the primary substance. (Tesla 1930)

For Vivekananda and consequently for Tesla, Akasha and Prana have their direct analogs in scientific language as matter and energy. Vivekananda relies on a somewhat imprecise language of electricity (the most concrete manifestation of energy available to him) to explain the mind's ability to act on object at a distance and finally to find itself in control of the basic fabric of the universe. Prana, defined as force in its most fundamental sense, is represented as responsible for the manifestation of electricity, magnetism, and the nerve force that catalyzes all forms of movement of the body and mind. It thus yields a broadly conceived notion of mind that can bridge the gap between subjective brain and objective material reality. Indeed Tesla's promise was significant to Vivekananda specifically because it provided him with a scientific explanation for resolving his material dualism (of matter and energy) back into the monism that his Vedāntic worldview required.

The Western precedents of such formulations demonstrate that the framework proposed by Vivekananda and Tesla was not exactly novel but that the introduction of Indian monism provided a new language for the relationship between mind and matter and, for those who were willing to take the metaphysical leap, resulted in the collapse of the distinction altogether. Though the practical implications may look similar to other ether metaphysics, such as the model proposed by Lodge, the underpinning logic of the present framework is fundamentally reversed. Rather than maintaining that ether theory could justify an existence for the mind as separate from the body—and therefore substantiate the notion of a soul—this alternative model suggested that the mind was not only not separate from the body but was in fact on a fundamental level identical to and cosubstantial with it, just as it was with the entirety of material reality.

It should be noted that this notion of Akasha as the originating aspect of material reality is significantly more basic than the Theosophical notion of the Akashic Records used by Laszlo. This being despite the fact that Laszlo explicitly refers to Tesla's use of Akasha but makes no mention of Theosophy.

Ether in the Quantum Age

Vivekananda and Tesla's assertions are all the more interesting because they were being written in a time of crisis within the scientific study of ether. By the time that both men made their claims about the unity of all material manifestation, the Michelson-Morley experiments of 1887 had already cast severe doubt upon the accepted notion of the luminiferous ether. The concept had certainly not been abandoned, especially given that no other scientific explanation for the propagation of light existed, but it was clear that a new theory was needed.

Tesla wrote "Man's Greatest Achievement" only three years after Einstein first proposed his special theory of relativity in 1905. In doing so, Einstein accomplished a version of what Tesla had promised Vivekananda a decade prior, proving the equivalence of mass and energy ($E = mc^2$) and eliminating the need for the ether as a universal frame of reference to explain electrodynamics. Einstein also belonged to the cohort of physicists who observed that light can in fact be understood as particles that exhibit a wave-like nature—the beginning of modern quantum mechanics—thereby effectively eliminating the requirement of a medium for the propagation of electromagnetic waves. This only meant, however, that the cypher of subtle materiality represented by ether moved yet another step farther from material reality as we see it. As late as 1920 Einstein himself insisted in his famous Leyden address that "there is a weighty argument to be adduced in favour of the Aether hypothesis" since "to deny the Aether is ultimately to assume that empty space has no physical qualities whatever," and finally concluded that "according to the General Theory of Relativity, space without Aether is unthinkable" (Einstein 1920). Of course, this new ether had few of the same characteristics as its predecessor, yet the general concept persisted. Eventually, however, theories of electromagnetism relying on the dual nature of light radiation and the role of its speed as a universal constant ushered in a new era of metaphysical theorizing that would attempt to establish light, rather than its now defunct medium, as the raw material of all creation.

In this new age of electromagnetic theory, the spiritual telegraph of the medium became the mental radio of the channel. The language of energy and light as representative of the spiritual is overwhelmingly characteristic of New Age metaphysics (Albanese 1999). Here we begin to see a transition in registers. Though the first wireless radio transmissions were achieved in the late 1890s, it was not until the early 1920s that radio broadcasting truly entered the public sphere. With the advent of technology capable of carrying the human voice over long distances by invisible but incontestably real and scientific means, energetic transmission finds a new foothold in metaphysical thought. The concurrent advent of motion picture technology added yet another layer. Though the old material aspects of ether were

slowly fading from metaphysical discourse, they were only making room for a new more dynamic form of subtle materiality—a materiality that was hardly material at all but, like light, largely energetic.

Ether metaphysics, even more so than purely scientific ether theories, did not so much fade as transform. Proponents of ether metaphysics—or, as Courtenay Grean Raia (2007) has termed it, "ether theologies"—such as physicist and psychical research enthusiast Oliver Lodge (1851–1940) engaged in an ongoing exchange with Spiritualist, Theosophical, and other occult circles (Noakes 2008; Asprem 2014, 208–25). To clarify the relation between matter, ether, and mind, Lodge gradually developed what Raia refers to as "a new language blending moral, spiritual, and material progress into a vaguely Christian meta-material evolutionism, strongly dosed with contemporary discourses coming out of experimental psychology" that focused on "a kind of tandem evolution, matter and mind (form and content), advancing together in reciprocal complexity, two parts of a unified whole" (2007, 39). However, while Lodge viewed the mind's interaction with matter as a necessary aspect of its fundamental nature, his system nevertheless preserved an essential dualism between a transcendent mind that could permeate and interact with matter through the medium of the ether.

This model underwent a fundamental shift with the advent of proto-quantum mysticism in the speculations of quantum theory's early founders. Marin has argued that the introduction of consciousness into quantum physics, the first instance of which he attributes to Niels Bohr (1885–1962), rests at the very root of the field. Bohr, however, remained skeptical of the ability of quantum mechanics alone to account for the role of consciousness, admitting that such matters require a 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" (quoted in Marin 2009, 809).

The fact that Bohr—who is, after all, famous for incorporating the yin-yang symbol into his coat of arms when he was knighted in 1947—invokes the Buddha and the Taoist philosopher Lao Tse (Laozi) is not to be glossed over. The present study centers on Indian, and largely Vedāntic roots, but the relationship between nondualistic Vedānta and Buddhism is well documented (King 1995). Though Pauli described his outlook as "lucid Platonic mysticism" (Marin 2009, 810), his writings demonstrate that he was both familiar with Śaṃkara's Vedānta philosophy and used the language of Brahman (Pauli 2013, 139) to refer to the ultimate unity of the cosmos. Finally, we have Schrödinger's explicit statement that Western thinking on the distinction between mind and matter could stand to be "amended, perhaps by a bit of blood-transfusion from Eastern

thought" (Schrödinger 2012, 130). While it would be incorrect to assume that these physicists gleaned their theories from Vedāntic thought,[7] neither can their final views be entirely separated from the eventual influence of such connections. As Fritjof Capra, Austrian-born physicist, member of the Berkeley Fundamental Fysiks Group, and author of the quantum mysticism classic *The Tao of Physics* (1975) once said in an interview:

> I had several discussions with Heisenberg. I lived in England then [circa 1972], and I visited him several times in Munich and showed him the whole manuscript chapter by chapter. He was very interested and very open, and he told me something that I think is not known publicly because he never published it. He said that he was well aware of these parallels. While he was working on quantum theory he went to India to lecture and was a guest of [Rabindranath] Tagore. He talked a lot with Tagore about Indian philosophy. Heisenberg told me that these talks had helped him a lot with his work in physics, because they showed him that all these new ideas in quantum physics were in fact not all that crazy. He realized there was, in fact, a whole culture that subscribed to very similar ideas. Heisenberg said that this was a great help for him. Niels Bohr had a similar experience when he went to China. (Quoted in Wilber 1982, 217–18)

As Asprem has argued, ether metaphysics and quantum mysticism can be construed as entirely separate streams of a larger body of natural theologies (Asprem 2014). In the case of the thinkers just mentioned, this is certainly true. However, this distinction becomes blurry when one examines other metaphysical writings of the period and disappears entirely if we recognize the history of Laszlo's use of Akasha. As the quantum physicists of the pre-War era were speculating on the role that consciousness had to play in matter by appealing to Eastern mysticism, Indian spiritual teachers on American soil were appealing to emerging scientific understandings to explain the role of matter with regards to consciousness. For Paramahansa Yogananda—most famous for his spiritual classic *Autobiography of a Yogi* (1946) which is perhaps the among the first pieces of purely spiritual writing to incorporate quantum theory—the notion of light as a unique universal constant becomes the ground of subtle materiality. Due to its dual nature as both a particle (gross matter) and a wave (energy), light takes the place traditionally held by ether as the bridge between materiality and spirit. Interestingly, though Yogananda's ideas ultimately hew closer to those of the proponents of proto-quantum mysticism mentioned above, he chooses to instead cite Einstein, a vehement opponent of the primacy of consciousness in quantum theory. This is most likely due entirely to the popularity of Einstein's articulation of light with regards to relativity.

The primary tenet of Yogananda's metaphysics rests in the claim that "the essence of all objects is light" (Yogananda 1951, 242) and the visible

material cosmos therefore operates as a tangible holographic image. This results in a fairly thorough reinterpretation of traditional Sāṃkhyan metaphysics brought into agreement with the popular scientific understandings of Yogananda's time. "Popular" is a crucial term here because, despite his preoccupation with light, Yogananda appears to have been unaware of the existence of photons, the quanta of light and all other forms of electromagnetic radiation that had been acknowledged by the scientific community some twenty years prior to the publication of the *Autobiography*. Consequently, for Yogananda, there are protons, there are electrons, and then there are "lifetrons." More specifically, all sensory stimuli result from the vibrations of protons and electrons, which are in turn regulated by lifetrons or "subtle life forces or finer-than-atomic energies intelligently charged with the five distinctive sensory idea substances" (Yogananda 1951, 42).

Lifetrons are essentially Prana. Indeed, Yogananda explicitly equates the two terms but almost uniformly chooses to employ his translation in place of the original Sanskrit, giving his metaphysical speculations a purposefully scientific tone. Yogananda's use of ether, which he dutifully identifies with Akasha, is more ambiguous, as he oscillates between more traditional Indian notions of *ākāśa* as space, outdated understandings of the luminiferous ether, and a new notion of a more subtle ether than appears to be equivalent with the lifetronic substrate. This inconsistent usage indicates, more than anything else, a genuine paradigm shift in the metaphysical conceptions of ether. If ether was not to become simply a vague metaphysical abstraction based on an outdated scientific concept, it would have to be adapted to represent some still more subtle level of reality, just as advocated by Einstein in the Leyden address. Moreover, though Yogananda appears for the most part unaware of quantum mechanics, he manages to bridge the gap between ether metaphysics and quantum mysticism through something like a "quantum monism."

Yogananda's lifetrons become both matter and energy, insofar as matter in Yogananda's view is simply "congealed" energy. Lifetrons are the underlying unified substance (field seems a more attractive term, but Yogananda does not employ it) underpinning all matter, of which the energy of light is the most typically visible manifestation. Yogananda is furthermore insistent that lifetrons, unlike the grosser "atoms and electrons," are inherently intelligent (Yogananda 1951, 417n). These subtle quanta, which are conceived as both particles (matter) and waves (energies) are the first emanation of pure undifferentiated consciousness and thus form an effective bridge between immaterial consciousness and the material cosmos. It is not surprising then that Yogananda describes the Akashic Records, which he understands after the Theosophic fashion to represent the memory of the universe, as literally written into the etheric lifetronic substratum (Yogananda 1999, 921).

Conclusion

It is worth remembering that Yogananda's *Autobiography* frequently occupies shelf-space next to more widely acknowledged works of quantum mysticism like *The Tao of Physics*. Theories such as Laszlo's, which make explicit use of but offer little explanation of Indian concepts, and speculations such as Capra's or Schrödinger's, which appeal to broad ideas but muddle the particular terminology of Indian traditions, gain much more nuance when read against a history that is attentive to the changing relationship between ideas and the words we use to define them. Furthermore, Indian teachers like Vivekananda and Yogananda, who are highly regarded in metaphysical communities and serve as popular sources of authority on Indian philosophy for both spiritually and scientifically inclined insiders, are themselves carriers of historically charged syncretism. This syncretism draws its form not only from metaphysical speculation but also from the accepted scientific body of knowledge that has historically influenced and was influenced by these same metaphysical ideas. In light of this, dismissing the role of metaphysical speculation in interpreting and perhaps even guiding scientific exploration does an injustice to the history of both communities.

With popularization of quantum mechanics, the old metaphysical conviction that mind can affect reality gains a whole new dimension. Those aspects of the Copenhagen interpretation of quantum mechanics—namely indeterminacy, entanglement, and the observer effect—that are most appealing to spiritual insiders and therefore most frustrating to skeptics become such specifically because they plug so conveniently into a preexisting history of ideas regarding the metaphysics of the mind-body complex. The infusion on Indian categories of subtle materiality such as *ākāśa* and the associated Vedāntic emanational view of matter from consciousness fundamentally transforms the possible ways of thinking of the relationship between mind and matter. While ether theories had historically been helpful in explaining how an immaterial mind could nevertheless act upon matter, the syncretization of ether with *ākāśa* effected by Theosophists and Indian gurus like Vivekananda and Yogananda bridged the gap entirely. Mind and matter could interact because mind *was* matter.

This materialization of mind therefore established a continuity between matter and consciousness even in those cases where consciousness itself—an absolute reality as separate from even a cosmic mind—was established as transcendent and immaterial. Laszlo's use of Akasha should therefore be understood in its Theosophic context as the memory of the cosmos but also with an account of the term's Indian roots that render such an aspect of mind essentially material—rather than transcendent—in nature.

Notes

1. The "New Age movement" is a similarly fraught concept that all of these authors struggle to define.

2. This might seem like a tempting premise for the models of *ākāśa* as the all-pervading and eternal ground of materiality developed by the Theosophists and Vivekananda, except that in Nyāya-Vaiśeṣika *ākāśa* possesses no creative faculty. Indeed, unlike the other *mahābhūtas*, it can be considered eternal specifically because it does not consist of parts and cannot form aggregates. The eternality of *ākāśa* in Nyāya-Vaiśeṣika is specifically owed to its status as the substratum of sound (*śabda*), the corresponding eternality of which holds theological significance due to the significance attributed by these schools to the language of the Vedas.

3. The text is not generally dated and thought to be the remnant of an earlier Greek version.

4. James Clerk Maxwell's famous set of equations, which form the basis of modern electrodynamics, demonstrated in 1862 that light was an electromagnetic wave identical to heat. An ethereal fluid thus became even further entrenched as the unique form of matter required for the propagation of these waves. Because light is capable of traveling even through a vacuum, it was hypothesized that even such spaces must be filled with a nonmoving ethereal substance. The first moment of crisis came in 1887 when the now famous Michelson-Morley experiment, conducted by Albert Michelson and Edward Morley, which attempted to measure the relative motion of matter through the stationary luminiferous ether, returned a null result. More specifically, the experiment was designed to measure the "ethereal wind" that would result from the Earth and ether being in relative motion. However, it failed to detect any significant change in the relative speed of light that would have indicated a change in the motion of the Earth in relation to the ether. Several subsequent experiments attempted to measure the effects of the ether's presence but returned no valid results, suggesting that a new theory was needed to account for the propagation of electromagnetic waves without the presence of a material medium. Ether's disappearance from mainstream scientific theory was, however, gradual and nationally variable. On this point see Asprem 2014, 109–10.

5. Leadbeater's use of the term "astral" here is also telling as it points to the association between the etheric and the astral that becomes an enduring staple of Theosophy's legacy in the language of modern metaphysical spirituality. Blavatsky's involvement with Indian thought grew through the course of her work, but her first Theosophical publication, *Isis Unveiled* (1877), relied much more heavily on Western esotericism and the work of such contemporary mystics as the French occultist Eliphas Levi (1810–1875), incorporating only fragments of Indian borrowings. Levi's influence on the Theosophists is particularly visible in their adoption of his Neo-Platonic notion of the astral light. Yogananda often prefers "astral" rather than "etheric" in his work, most likely specifically because of this light-based association. Indeed he goes so far as to distinguish between the "astral ether" and the "grosser earthly ether" (Yogananda 1951, 264).

6. Ultimately he is forced to admit that "both Akasha and Prana again are produced from the cosmic Mahat, the Universal Mind, the Brahmâ or Ishvara" (Vivekananda 1989, 5: 78). Of course, this is hardly any less problematic since it essentially takes *mahat* (or *buddhi*) out of its proper place in the schema of subtle materiality while simultaneously misidentifying it with the universal Brahman.

7. Interestingly, this is precisely what Rajnath Singh, India's Home minister and member of Narendra Modi's BJP administration, did in November 2014 when he attributed Heisenberg's uncertainty principle to the Vedas at a public government event.

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