

# PUTTING THE BUDDHISM/SCIENCE DIALOGUE ON A NEW FOOTING

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## WHAT WOULD A BUDDHIST SCIENCE LOOK LIKE?



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## What Would a Buddhist Science Look Like?

*Francisca Cho, PhD*

Cho introduced herself as a historian of religion focusing on East Asian Buddhism and its cultural expressions in literature and film, and in particular how Buddhist philosophy has been used to validate the East Asian literary imagination as something akin to Buddhist practice. This leads to the parallel question of what a Buddhist science would look like, given the impact of Buddhist philosophy on science and the way science is conducted.

She noted that the term *bhavana*, generally translated as “meditation,” carries the connotation of cultivation typical of the constructive approach of East Asian Buddhism, which emphasizes an intentional process of developing experience and becoming a new kind of person. This corresponds to the understanding of karma as intentional action.

She imagined a Buddhist science not so much as introducing new methodologies but as redefining the existing conduct of science within an explicitly Buddhism philosophical and epistemological framework. A first step would highlight the default Western philosophical framing of the nature and purpose of scientific knowledge as veridical access to the physical world and increasingly also to the subjective world. Cho envisioned a Buddhist science as methodologically empirical while at the same time avoiding substance ontology. It would also dissolve the mind/body problem by framing it in a way that accords with ordinary experience instead of as an elite intellectual concern. It would recognize that cosmology is constructed mentally as well as physically, and that construction carries ethical implications. Finally, she envisioned a Buddhist science that would value the imagination as scientists recognized its role in their own process rather than contrasting scientific “truth” to religious “fantasy.”

Cho proposed a narrative pluralism that would allow for multiple forms of valid knowledge or “access to the real,” not necessarily conforming to a single unified narrative. She acknowledged that this was a radical position that would be seen as irrational by the likes of Dawkins, but consistent with aspects of Buddhism that may be useful to a new science. These include the way Buddhist hermeneutics rely on no single definitive text, with the Buddha’s “word” adhering to the spirit of a teaching rather than the letter, and with a distinction between definitive and provisional teachings where the latter are more highly valued as expressing the Buddha’s intentionality and skillfulness in adapting to circumstances.

Buddhist epistemology may be useful insofar as the Yogacara mind-only philosophy understands that all experience—including distinctions between mental and physical experience—is mentally constructed, and thus scientific and religious narratives possess the same validity. Cho emphasized that Yogacara was not a substance ontology but a phenomenological analysis, though Western philosophy is so “axiomatically honed to substance ontology” that it misreads Yogacara. She pointed instead to the metaphor of two mutually supporting sheaves of reeds as the Yogacara interpretation of the relationship between mind and body, observing mutual reliance and dependent arising. Cho claimed that this shift in the metaphysical framework dissolves the otherwise insoluble mind/body problem.

She then turned to the similarities between Buddhist philosophy and modern science, including empiricism, which values direct perception and confirmation and is anti-dogmatic. She identified another point of similarity that she called Theory Agnosticism, which science holds as an ideal, if not in practice—that beyond observation, measurement, and correlation, there is only hypothesis and no access to truth. In Buddhism, liberation is associated with going beyond all views and claims that “only this is the truth.”

Cho then briefly reviewed Aristotelian natural philosophy as the default framing of modern science, with its privileging of eternal truths over the changing world, with mathematics as paradigmatic, and the substance ontology that sees the world as composed of fundamental substances that are ontologically prior.

Breaking for discussion, Sean Smith raised a concern that Cho was conflating substance ontology with the mind/body problem. While Buddhism has its own mind/body dualism, she clarified, it is fundamentally different from the expression of the problem in Western philosophy. Buddhism’s phenomenological approach “saves the appearances” that mind and body obviously interact, while Western philosophers render that interaction as an “incredible mind-blowing fact,” an everyday occurrence presented as a logical impossibility. Bill Waldron noted that the purpose of Buddhist philosophy was not a correct ontology of the world but pragmatic “handles” to work with our experience, and that interaction between mind and body was the very starting point of the endeavor.

Giovanna Colombetti questioned how the Yogacara claim that the mind arises independent of material forces outside of itself did not imply an ontological claim about a material world existing independent of the mind. Cho responded that this was an example of a clash of philosophical cultures, where we assume that “outside of the mind” must refer to the existence of an objective reality. Waldron offered that matter or *rupa* in Yogacara is a phenomenological category characterized by resistance, and thus a relational concept rather than a concept of substance. Jack Petranker doubted whether the scientists present would see themselves as complicit in the apparent slide from methodological materialism to ontological materialism that Cho identified as a given in Western culture, but David Presti spoke up that even with his long engagement with Buddhist philosophy as an empirical scientist he still felt that “there is an implicit assumption of this substance ontology whether folks admit to it or not.” Cho pointed out that the Buddha’s original message was that all human beings, as a result of having a mind, elide to a substance ontology and hence the need for the therapeutic teaching of anatman.

David McMahan questioned the purpose of proposing a Buddhist science—What did it add that was not covered by phenomenology, post-modernism, or empiricism? And, given the desire to keep religion and science separate and the marginal nature of Buddhism in the West, what traction could this gain? Cho responded that post-modernism was seen as threatening chaos and nihilism, and that phenomenology was very obscure. Buddhism was already attracting the interest of scientists who saw it more as a philosophy than a religious phenomenon. David Germano commented that science was profoundly hermeneutical in character, and thus shaped by scientists’ cultural backgrounds so that “if we had different assumptions, we’d be making different conclusions.” He also warned that Yogacara was extremely diverse and contested within Buddhism, and that it was not a phenomenology of the same order as Husserl’s.

Kalina Christoff turned the discussion to the stated purpose of the institute, saying that part of the new footing for the dialogue could address the taboo of the mind, which scientists avoided because “only one person can observe it and as you observe it you change it.” She suggested that Buddhism, which had not shied away from the mind, could thus serve as a midwife for the birth of a new science.

The second half of Cho’s presentation examined the Abhidharma (drawing primarily on the Theravada tradition) as a manifestation of Buddhist “materialism” and a systematic reductive analysis that is sometimes seen as comparable to science. This reductive analysis rejects as illusory the reality of evident things such as persons and objects, in keeping with the Buddha’s teaching of *anatman*—that there are no core realities but just processes. It reduces objects to aggregates of “atoms” (*paramanus*) which are irreducible and without spatial extension, suggesting analogies with physics. It deconstructs wholes into psycho-physical events called “dharmas.”

Dharmas are mental events—qualities, rather than substances that bear qualities. For example, of the physical dharmas, or primary elements (earth, water, fire, wind) the earth element represents the quality of solidity and the function of being a foundation. Other functions are cohesion (water or fluidity), maintenance (fire or heat), and distension (wind or mobility). All four of these physical dharmas are present and mutually dependent in every physical event, in varying intensities.

Objects of sensory perception are seen in Abhidharma philosophy as substantively real in contrast to mental universals due to their causal efficacy and the irreducible nature of their atoms, which suggests a creeping ontological realism. The later tradition of Mahayana Buddhism resists this tendency to substantialism, as Nagarjuna refutes any self-existent *svabhava* on the basis of logic alone, and holds that dharmas and their properties are mutually dependent. Likewise, if atoms have no extension in space, they cannot aggregate into objects; if they have spatial extension then they are further reducible into parts. Later, Dharmakirti offers an analysis that varies hierarchically with scale, from the atomic—where he accepts Abhidharmic external realism as conventional truth—to the higher level of epistemic idealism as the ultimate truth. Cho observed that this was an example of Buddhist facility with narrative pluralism, which is usually hierarchical.

She concluded with the example of Tiantai Buddhism, which adds a third truth beyond Nagarjuna’s conventional truth (locally coherent concepts or systems) and absolute truth of emptiness, which is the truth of “centrality” or the non-dualism of conventional and absolute truth. In other words, Tiantai emphasizes the absence of hierarchy in the teachings and sees all systems as equally conducive to liberation.

In the discussion that followed, Cortland Dahl remarked on the fundamentally different purposes of science, which aims to understand how nature operates, and Buddhism, which aims to alleviate suffering, while Clifford Saron pondered how the efficacy of science to relieve suffering might be defeated by the narrative pluralism of a Jehovah’s Witness refusing treatment for a child. Cho countered that the Jehovah’s Witness also needs to learn the ideal of narrative pluralism, and in fact many people do operate within multiple narratives but we find it difficult to afford them credence or intellectual respectability. Sean Smith questioned whether we needed to establish criteria about which narratives count as valid, and David Germano added that this problem existed not just in terms of science versus religion but in many other domains of

culturally and socio-politically situated knowledge, with higher education practices as a clear example. He continued with the observation that not all cosmologies are equal, some being complicit in horrible social abuses. Michael Sheehy added that when the Dalai Lama conceded the cosmology centered on Mt. Meru in his discussions with scientists, the effect was not merely to remove an outdated vision of the universe that conflicted with the Copernican view, but to invalidate the conceptual framework for many Tibetan Buddhist practices that use that cosmology symbolically.

Amir Raz argued that science is not in fact a set of established truths but rather a set of institutional structures that offer methods to improve our knowledge, but Cho pointed out that that message does not stick, and even the most sophisticated of scientists will generally revert to an ideological faith in scientific access to reality. Germano offered that the beauty of science was the tension between the constraints of the method and the fact that scientists operated as highly interpretive and creative agents in that process.