

1990 Conference: *Buddhism and Modern World*

Buddhism and Science: Some Limits of the Comparison

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This is the continuation of a series of articles which begins in Vajra Bodhi Sea, issue number 243, August 1990. The following paper was presented on the opening evening of the conference, Friday, July 13, by Harry Wells, a professor at Humboldt State University. Dr. Wells was also a speaker at Dharma Realm Buddhist University's 1989 conference on ethics.

There are some people, including Asian and Western Buddhists, who try to make Buddhism "scientific." There are other people, including Asian and Western Buddhists, who say the intent and perspective of the Buddha is quite different from science, and to seek one within the other fails to take seriously the difference in scope and focus of each. I would agree with the latter group. The key words here are intent and perspective, which shape the approach of any discipline. The Buddha's approach and the empiricism of science have very different intentions and they deal with very different dimensions of life. That is not to say that one is more important than the other, nor that they are incompatible. It does mean that they cannot be collapsed one into the other.

Let me explain how I am defining "empiricism" in terms of this paper on Buddhism and science. I am using "empiricism" in the manner in which science itself has defined its methodology, meaning the examination of phenomena through constructs of quantifiable terms based mainly on the language of mathematics which allows for consensus in the examination of reality. It confines its examination of data based upon this template of quantity. According to science, only knowledge measured with numbers and worked out with mathematical equations are legitimate. Its field of knowledge and intent of investigation necessarily reflects the boundaries of its template as does any knowledge reflect its method's boundaries and intent.

Buddha's intent, indeed his whole life and ministry, is clearly summarized in the Paraniibbana Sutta:

Monks, the principles which I have discovered and taught should be well learned by you, and practiced, developed, and cultivated, so that this benefit and happiness of many people, for compassion for the world, for the welfare, benefit, and happiness of men and gods...

The Buddha's focus is always soteriological, that is, salvific, meaning the cultivation of the best life, the most awake life, the most human life. That focus is *inherently* a question of human meaning, a question which cannot be empirically measured or tested by the

parameters of the physical sciences or the social sciences. I am not pointing here to some metaphysical absolute which somehow transcends the test tube or the analytical data bank, although that may be true. Rather, I am simply saying that science cannot, by its own defined boundaries, address the central issue which Buddhism, and all religions, seek to describe— what is the best life for us? What is *human* being? Such evaluation simply lies outside scientific domain, but it is the central basis and methodological context of the Buddha's teachings. It is the primary concern of the Dharma; it was the driving force behind the Buddha's quest for Enlightenment.

To advocate what is the *best* human life is immediately to enter the realm of human experience of meaning, which is an experiential *a priori*. Said more plainly, humans exude meaning. When we experience, we experience in terms of meaning; even when we experience "meaningless," it is a measurement in terms of meaning. We have no choice. That is the structure of our human awareness and thus the structure of our experience of reality. Therefore, to talk in terms of quality, such as the *best* human life, is to address the most basic human experience of meaning, with its consequential assumptions.

Moral consequence is inherent in our human experience of meaning, and one way we express that is through our conceptual, religious frameworks. Buddhism assumes moral consequences, scientific empiricism does not. Scientific empiricism does not assume moral consequences because it is an examination of the material world from a standard point of analytical quantitative abstractions. And the difference in that basic assumption between Buddhism and science, with their differing intent, is enormous.

The Question of Paticca-samuppada

Some will claim that the teaching of *paticca-samup-pada* is empirical, that it simply observes causal relations and thus is repeatable and confirmable. As you know, *paticca-samuppada* says in English translation:

*When this is, that comes to be,
With the arising of this, that arises,
When this is not, that does not come to be,
With the cessation of this, that ceases.*

True, as a formula, it is applicable to any phenomena. But the application of the Buddha is specifically to moral consequences; that immediately enters a realm of human experience of meaning which is non-empirical. Saying "non-empirical" says nothing about the truthfulness of the teaching; it simply says the narrow focus of science cannot address the questions, " What is the meaning of life? What is human being?"

Paticca-samuppada arose out of the Buddha's quest for full human being. It can never be separated from its soteriological context within Buddhism. If one removes it out of its soteriological context, it ceases to be the teaching of the Buddha and ceases to be Buddhism. Those who seek to somehow claim Buddhism is scientific must face the reality that Buddhism is a religion, not a science. And that Buddhism *is* religion is its

strength, not its weakness. The strength of the Dharma lies directly in the power it carries in addressing human meaning.

Why seek to somehow validate the Dharma by appealing to a context which cannot even ask the same question? What assumptions are revealed in the attempt to do so? To seek such validation seemingly says that scientific empiricism is accepted as the definitive standard of all reality. Yet, to live and breathe humanly is inherently to experience the dilemma of meaning, and science cannot address that. The Dharma, and all great religious and mythic systems, can and do address meaning.

The Three "Sciences" of the Buddha

Some persons will claim that the Buddha, in acquiring the three sciences in the night of his enlightenment, confirmed the empirical reality of karmic transmigration. Two points need to be made concerning this point. First, context gives meaning, and karmic transmigration is discussed in terms of human meaning, which the empiricism of science does not address. Antony Fernando shows how karmic transmigration has meaning only in response to certain questions, and those questions are not the questions of science.

Many today make a great mistake when they assume "rebirth" to be a word that has, like ordinary words, a self-contained sense. This is not so. "Rebirth" is not a word, for instance, like "pen," "pencil," or "paper." Such words can be understood in themselves, without reference to anything else. Rebirth, on the contrary, is an answer, and like the answer-words "yes" or "no," for example, it cannot be understood except in connection with the question to which it is related. (Antony Fernando with Leonard Swidler, *Buddhism Made Plain: An Introduction for Christians and Jews*, p. 41)

The question here being asked concerns human meaning and the answer given is within the cultural milieu initially of Indian Buddhism and then later Asian Buddhism. Karmic causal relations are no more empirically proven than is the existence of God; both are real referentially, and neither concept is literally one-to-one correspondence to what we know in experience.

This brings us to the second point to be considered within this context. We can only think, and talk, indirectly. Yet, we structure our lives by this indirection and live intentionally through these expressive structures to facilitate wholeness, to communicate our experience of meaning. We may experience directly, apprehend fully, but to describe, we must use abstractions. The Buddha recognized that the Dharma was a tool of indirection made up of concepts pointing to experience of being. That is why he says that the Dharma is like a raft one uses to move over the sea of *samsara*, but then it is cast away once one reaches the shore of nirvana. That is also why the great Buddhist thinker, Nagarjuna, showed that all conceptual systems eventually self-contradict, and even used this conceptual deadlock as a tool, a raft, to move awareness into direct experience of being, of awareness.

Therefore, it is an error to think "karma" or "God" or any other abstraction is one-to-one correspondence with our experience of being, with reality. This is equally true for science, which is also simply a construct to help us engage our lives intentionally in a specific manner—measuring experience in terms of quantifiable factors using the language of mathematics. Amazingly, this may be the biggest blindness of most people, for many take science as literally reflective of a physical reality. But it is a template placed on experience as is all human thought. Think about it—have you ever seen a perfect square or circle in reality except those which were made by human minds and hands? Yet math and physical sciences build their whole systems on such abstractions.

To think that the Dharma, or any description, *including science*, is one-to-one correspondence with reality is to fail to realize that all human expression, including the teachings of the Buddha or the Christ or Einstein, is indirect.

Now to my main point of this section. When persons seek to validate Buddhism by scientific empiricism, or claim they share this in common, what often is occurring is the above mistaken assumption that science gives one-to-one correspondence to reality. If Buddhism can thus be shown to be scientific, it can gain credibility in the eyes of "modern" persons. Another common error is the dogmatic assumption that Buddhism is directly reflective of reality, as is science assumed to be, so they somehow have to be reconciled. Either way, it is one mistaken assumption built upon another, failing to recognize the inherent indirect nature of human expression. Even more importantly, they have failed to recognize the totally different intent and context of Buddhism and science.

The Emergence of "New" Science?

I would like to express a final warning to those who try so hard to link Buddhism and scientific empiricism. The narrow reductionism which "modern" science has advocated is being challenged on all sides, and from within science itself. Slowly, and begrudgingly, reductionistic assumptions of science are being questioned. In fact, many persons now speak of the present as a "postmodern" age, which accepts plurality of contexts held in creative tension as descriptive of experience. To try to tie Buddhism to a strictly empirical scientific view which is already seen as insufficient does the Dharma a great disservice.

So do Buddhism and science have any interface at all? I certainly hope so. But it will not be an interface seeking to reduce Buddhism to some sort of scientific empiricism. Rather, it will be an interface rooted within a framework of plurality, which is comfortable with multiplicity of contexts and the ambiguity of creative tension in the description of our experience of being.

One of the greatest contributions which contemplative aspects of religion, including Buddhism, brings to this interface is the necessary attention to moral consequences of our actions. Though not measurable by scientific methodology, moral consequences are inherent in our human experience of meaning. If we are going to live human lives, we must live moral lives and take into consideration the moral dimensions of our

technological and scientific advances, whose present methodology cannot even ask these questions. These questions come out of our experience of being, and will always be in some sense "numinous" because we are already always within our experience of being. These questions remain non-scientific. They can only be answered in existential terms of our experience of meaning.

Will there be a "new" science? Can it change to include the question of human meaning, becoming able to deal with the inherent questions of value, purpose, existential meaning, and quality? If science is to deal with these issues, it must relax its present demands to quantify all existence as the sole criteria of study. Yet, science has achieved the respect it now enjoys by virtue of the kind of knowledge it produces and the control to which that knowledge leads. Will it be willing to lessen the rigidity of perspective which gives so much power? Even to accept a new science would in itself be an acceptance of meaning and purpose which is outside its present methodology, and would call it to enter the qualitative and non-quantitative experience of human meaning. As Huston Smith points out, we are free to turn science in this new direction; but, I wonder, are we *willing* to do so? Smith also reminds us of a very important point:

What we must realize is that every step taken toward humanizing science in the sense of moving it into the four fields it has thus far ignored [i.e. intrinsic and normative values, purposes, global and existential meanings, quality] will be a step away from its effectiveness in the sense of its power-to-control. For it is precisely from the narrowness of its approach that the power of modern science derives. An effective and restricted science or one that is ample but does not enable us to control the course of events much more than do art, religion, or psychotherapy—we can of course define the word as we wish. What is not possible is to have it both ways, (from *Beyond the Post-modern Mind*, p. 70)

Highlights of Discussion Following Dr. Wells Presentation

Michael Bonneville (Ukiah ecologist): Science is barren. It has lead us to our present ecological crisis: rivers are dead, half the animal species are gone, the last virgin groves of trees are being cut down in a frenzy. A new view is being born: "deep ecology," which brings humility to the human view of Nature. It sees and respects the intricacy of a micro-organism, it respects the diverse and complex realms and kingdoms of life on earth, it does not need to reduce all things to quantities you can count, measure, buy and sell. In standing humbly and observing the bio-diversity of the planet, we increase our awareness of ourselves.

Tom MacMillan (educator, Mendocino College): The Buddhist perspective of "conditioned arising" *paticca-samuppada* is equally relevant in analyzing all phenomenal dharmas, not just in matters of moral relevance. It is an empirical tool.

Wells: Conditioned arising is a description of empirical reality, but it pertains in Buddhism more to Abhidharma analysis. The Buddha taught a higher truth than linear

causality when he taught the Great Vehicle *sunyata*, "emptiness." Schools arose over this argument in Buddhist history.

Dharma Master Heng Chi (Buddhist monk): I appreciate Dr. Wells thoughtful presentation and Dr. MacMillan's response. The teaching on *pratitya-samutpada*, a Theravadan teaching is contained in the larger Great Vehicle Dharma, and both are part of my Buddhism. I agree it is wrong to say Buddhism is scientific; it belittles Buddhism. But you can say that science also belongs to Buddhism, because it has a lot to say about the nature of reality. I loved science as a student, and I understand now that it completely fits within Buddhism. The Bodhisattva, after liberation studies the illusion of the world. Even as he understands it is an illusion, he studies phenomena anyway to master it, so he can rescue living beings. He does the same work scientists do because he needs to know what nature is about.