

Buddhism and Science: A Guide for the Perplexed

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Introduction

After one of his recent lectures at Yale, a questioner almost pleaded with Donald Lopez: 'Surely Buddhism is the most rational of religions'. Lopez retorted, somewhat icily: 'That is a Victorian conceit!'^[1] In this book, Lopez warms up considerably as he tries to defend Buddhism from the embrace of science and rationality.

The title is misleading. *Buddhism and Science* simply aims 'to document some of the ways that Buddhism has been represented as compatible with science over the past 150 years.' (p216). Lopez himself, a very fine Buddhist scholar and linguist, is unqualified to discuss scientific issues, as he freely admits (p4).^[2] So he tries to avoid the temptation to assess the *validity* of compatibility claims.

After a long chapter on traditional Buddhism's Mount Meru cosmology, perhaps the most obvious material to be dispensed with in the light of western geography, Lopez turns to the issue of social class and caste. This issue is even less relevant to Buddhism and science than Mount Meru. There may have sometimes been a racist, or at least nationalist, tinge to the Buddhist use of traditional terms like 'aryan' in the early 20th-century, and Lopez links this with the notorious racist 'science' of the same period.

Dalai Lama and another Tibetan monk, Gendun Chopel. The latter encountered modern technology during his travels in the 1930s, and enthusiastically explained it to his compatriots. is the highlight of the book, covering the early decades of the investigation of Buddhism by European scholars, who constructed an image of a rational, even scientific, Buddha, which was then re-exported back to Asia. The final chapter looks at laboratory studies of Buddhist meditation.

How do we compare Buddhism and science? Perhaps the two simply rule over separate domains: the internal and external world respectively. This was the Dalai Lama's position in his early writings. More true to Tibetan Buddhism is the distinction between the ultimate truth of liberation, and conventional truths concerning the mundane world. But the line between Buddhism and science is not so easy to draw: Buddhism is itself concerned with conventional truths, and science regards itself as seeking Truth itself.

Some 20 years ago, the Dalai Lama's youthful fascination with technology and astronomy firmed into what has become a very fruitful ongoing dialogue with many Western scientists. He inaugurated - and is the focus of - a continuing series of biennial 'Mind-life Conferences',^[3] where Buddhists and scientists seem to have genuinely learned from each other in a number of fields. In fact, Lopez fears that the contact has infected the Dalai Lama with modernist tendencies, so that he is open to Buddhist ideas being corrected by science, and even prioritises experience over scripture (p139), a stance which Lopez regards as disturbingly innovative.

Nevertheless, the Dalai Lama seems to feel that certain Buddhist teachings need defending against scientific scepticism or materialism: karma and rebirth, yes, and most importantly, the

need for compassion. For example, in a recent book on his response to science, *The Universe in a Single Atom* - examined in some detail by Lopez, the Dalai Lama's enthusiasm for science stops short of fully endorsing evolution by natural selection. From early on, the evolutionary nature of Buddhist thought has been recognised in the West,^[4] but the Dalai Lama's problem is with the mind appearing out of non-mind, and with randomness. Since, in his view, mind and matter are quite distinct, how could a stream of mind appear in an evolving being, where no mind has existed before? The Buddhist explanation has to involve karma, rebirth, and a beginningless mind-stream. The Dalai Lama concedes that karma is an assumption, but no more than 'that all of life is material and originated out of pure chance... karma can have a central role in understanding the origination of what Buddhism calls 'sentience', through the media of energy and consciousness.'^[5] The Dalai Lama understands Darwinism to claim that humans are 'the products of pure chance in the random combination of genes, with no purpose other than the biological imperative of reproduction',^[6] leaving no room for true altruism. Lopez ascribes to the Dalai Lama, probably mistakenly, the very odd logic that if there were no karma and rebirth, there would be no Samsara, and so no place for the bodhisattva's compassionate vow to liberate all from Samsara. Surely the Bodhisattva's compassion would not be stifled by a change in his or her conception of the scope of Samsara?

Are the realisations of mystics and meditators legitimate? Yes, but the accounts the meditators give of their experiences, their interpretations, can surely be clarified –and even corrected - in the light of other, scientific sources of knowledge. Suffering, impermanence and insubstantiality are still there, both subjectively and objectively. They are amenable to discovery through contemplation, and through reflection on one's experience of life. They are also accessible to empirical investigation. For Buddhists, the most significant arena of investigation is human experience, and thus the human mind.

The Dalai Lama has encouraged neuroscientists to investigate brain changes during meditation, and thus they have found willing volunteers amongst Tibetan monastics. Wider studies have looked at the psychological effectiveness of meditation, though these have generally used simple meditation techniques that are not specifically Buddhist. In a bizarre narrative, which is also something of a tour de force, Lopez opens the fifth chapter with a ten page imaginary account of a Tibetan performing the elaborate ritual visualisation of the deity Vajrayogini, only to be interrupted by the discomfort of his rectal thermometer and scalp electrodes! It's a striking juxtaposition of two apparently unrelated worlds. How can you investigate scientifically whether Buddhist meditations work? Can you even tie down what it would mean for them to 'work' in a truly Buddhist sense? Indeed, that rectal thermometer may have registered a rise in body temperature. So what?

Rather than meditation and other practices that constitute the Dharma, Lopez' primary focus is on the image of the Buddha. He contrasts the larger-than-life Buddha of the canonical texts, even the less baroque Pali ones, with the reasonable humanistic educator Buddha of the Western scholars. Yet a number of those same texts represent the Buddha as asking his followers to honour the Dharma rather than his person, and to put his teachings into practice. Arguably, his central teaching was of conditioned arising (*pratītya samutpāda*). Specifics of the causes of suffering in craving, aversion and ignorance, and of cultivating a path to awakening, are instances of conditioned arising. Conditioned arising asserts that there are regularities in human life, as well as in the world, that ensure that one set of circumstances surely evolve into particular new circumstances, a process that can be discovered. It is here that the strongest parallel with

science lies. Science too is trying to trace the lines of causality that explain observed situations, and predict how they will evolve. Science is on its surest ground when it explores the regularities of matter and energy, untouched by the human will. But there is no need to debar science from the phenomena of the psyche, and even the suggestion of karmic links between one's willed actions and later events should be, to some extent, testable scientifically.

Whatever the Buddha did or didn't know, surely we are aided in comparing Buddhism and science by comparing their respective sources of knowledge. Here, Lopez is interesting on sources of knowledge in Buddhism, especially when he considers the Dalai Lama's views, but his ignorance of science makes it difficult for him to assess the comparison effectively. Perhaps it is deliberate that there is no definition of science in this book. This certainly helps Lopez avoid directly confronting the issue of compatibility from scratch; he prefers simply to analyse the succession of claims made by other writers. In any case, he questions the much-vaunted 'empiricism' of Buddhism, claiming that experiences, including deep meditation experiences, are recounted in the light of, and validated from, scriptural authority (p210). (Science, also, is much less empirical than is often maintained, observations often being strongly influenced by theoretical assumptions.)

Conclusion:-

This is a valuable and fascinating survey of encounters between Buddhism and science. I'm left with a sense of regret, however, that Lopez did not seek out as co-author an academic as literate in science as he is in historical scholarship, so that the two great disciplines could be brought at least to a point of mutual comprehension. From that point of comprehension, the compassionate project of Buddhism can be enhanced by the insights of science, and by applying science to beneficial technologies. And science can perhaps learn a non-supernatural ethics from a friendly Buddhism, as well as finding a guide into the subtleties of human consciousness.

References:-

1. *The Evolving Mind, Buddhism Biology and Consciousness* (Windhorse, 1996).
2. 'The Problem with Karma', the third Terry Lecture at Yale University, 6 October 2008, video stream available online at <http://www.yale.edu/terrylecture/> [accessed: 08.03.2009]
3. This is not just modesty; for example, when Lopez humorously attempts to imagine a Buddhist response to cloning, he seems unfamiliar with what cloning actually involves (p150).
4. Dalai Lama, *The Universe in a Single Atom* (Little Brown, London, 2005), 38f.
5. Robin Cooper, *The Evolving Mind* (Windhorse Publications, 1996).
6. *Mahayana Buddhism* (1908).
7. Dharmacari Naagapriya, 'Was the Buddha Omniscient?' (*Western Buddhist Review*, volume 4).