Donald S. Lopez Jr.'s Buddhism and Science: A Guide for the Perplexed

with Peter Harrison, "A Scientific Buddhism?"; Thupten Jinpa, "Buddhism and Science: How Far Can the Dialogue Proceed?"; Donald S. Lopez Jr., "The Future of the Buddhist Past: A Response to the Readers"

THE FUTURE OF THE BUDDHIST PAST: A RESPONSE TO THE READERS

by Donald S. Lopez Jr.

Abstract. I respond to comments offered by Peter Harrison and Thupten Jinpa on my book Buddhism and Science: A Guide for the Perplexed (2008). I report briefly on the reception of the book thus far and provide a summary of its contents before responding individually to the essays of Harrison and Jinpa.

Keywords: Buddhism; Peter Harrison; Thupten Jinpa; Donald Lopez Jr.; religion; science

In the months immediately preceding and following the publication of *Buddhism and Science:* A *Guide for the Perplexed* in the autumn of 2008, I gave a number of lectures on the topic of the book at universities in the United States. The lectures in most cases were an expanded version of the introduction to the book, briefly tracing the history of the conjunction of Buddhism and science and demonstrating, or attempting to demonstrate, that claims for the compatibility of Buddhism and science derive from the colonial encounter, and specifically from polemics between Buddhist elites and critics of Buddhism, whether they were Christian missionaries or Asian modernists. I would observe that such claims have required a serious delimiting, and at times even distortion, of what "Buddhism," whether understood doctrinally or historically, might mean. The lecture would conclude

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with the question of why such claims for the compatibility of Buddhism and science have continued to persist after the colonial period.

Following one such lecture at a university in California, the first person to raise his hand asked, "Could you comment on the relationship between quantum mechanics and the Buddhist doctrine of emptiness?" It seemed that this person had not heard what I had said over the previous fifty minutes, or, more likely, found what I had said to be irrelevant to the interests that had motivated him to attend a lecture on Buddhism and science. I had failed to make my most basic point clear to at least one member of the audience, and he seemed puzzled when I failed to answer his question directly. The second question came from a prominent scholar of Buddhism, who asked, "Can you name a single scholar of Buddhism who takes the claims about Buddhism and science seriously?" This question also was telling. Unlike the first questioner, the second had understood everything that I had said all too well; what I had said was so obvious that it need not be discussed. His question implied a second question, directed specifically to me, which he was too polite to state directly: "Why would you, a scholar of Buddhism, waste your time writing a book about Buddhism and science when all scholars of Buddhism know that all claims for the compatibility of Buddhism and science are nonsense?" In other words, both of my interlocutors were perplexed.

When I first submitted the manuscript to the University of Chicago Press, the book was titled *Buddhism and Science: A Historical Critique*. The subtitle seemed to me a clear description of what the book sought to be, and it distinguished it clearly from several other books titled *Buddhism and Science*. However, the press felt that the subtitle was somewhat boring and asked me to suggest something else. I eventually settled on "A Guide for the Perplexed." This subtitle was not randomly chosen and was not intended merely as a brazen evocation of the great Maimonides.

At the University of Michigan, I currently serve as chair of the Michigan Society of Fellows, and in that capacity it is my good fortune to speak with faculty from the natural sciences more often than would normally be the case for a scholar from the humanities. In the inevitable September small talk that academics exchange after the summer, one is always asked, "What were you working on this summer?" The past few years I have answered, "I am writing a book on Buddhism and science." And each time I have spoken that simple sentence to a scientist, he or she has looked perplexed. When one has written a book on a particular topic, one hopes that its title will spark a hint of recognition in most scholars and that those who are oblivious to the topic will at least be able to employ the academic's well-developed ability to mask confusion with the knowing nod of the head. But in the case of a book on Buddhism and science, the confusion was clearly evident.

This perplexity has been instructive. Buddhism and science has been something of a hot topic in large circles of Western Buddhism for more than a decade, and interest in it has only increased in recent years. Thus, it has been humbling to utter those three words in conversations with scientists and be met with unabashed expressions of bafflement. This, then, is one level of perplexity referenced by the subtitle: a general perplexity at the conjunction of the terms *Buddhism* and *science*—hearing the words but not knowing what they mean.

There is a second type of perplexity, a more skeptical one: a puzzlement as to why the two words would be conjoined. This type of perplexity I myself once suffered. For many years I imagined that claims for the compatibility of Buddhism and science derived—like so many other popular conceptions, and misconceptions, about Buddhism—from the 60s and had come to their first popular expression in Fritjof Capra's *The Tao of Physics*, published by Shambhala in 1975. I was both right and wrong. The claims did derive from the 60s, but I was off by a century. The claims are made as early as the 1870s.

Identifying the historical origins of a claim is the first step toward understanding that claim. *Buddhism and Science: A Guide for the Perplexed* was an effort to remove my own perplexity by seeking to identify the historical origins of claims for the compatibility of Buddhism and science. As I hope the book establishes, these claims began in the nineteenth century, in conjunction with several factors crucial to their appearance. First, it was during the nineteenth century that Buddhism became fashionable in Europe. Second, it was also during the nineteenth century that Buddhist leaders in a number of Asian cultures sought to defend themselves against the attacks of Christian missionaries.

I began these comments with the observation that, at least in my public presentations of the general outlines of the book, it has not immediately succeeded in finding its audience. For those who have a personal or professional investment in the idea that Buddhism and science are somehow compatible, my historical critique has been unconvincing. For many professional scholars of Buddhism, who know Buddhist doctrine and history well, the idea that Buddhism and science (whatever one means by those terms) are compatible is so preposterous as to be unworthy of sustained analysis, and certainly unworthy to be the topic of an entire monograph.

Thus, I am grateful to *Zygon* for undertaking the difficult task of finding readers who fall into neither of these two categories—the unconvinced enthusiast and the uninterested Buddhologist—readers who would take the time to seriously engage with the content of my book, and I am grateful that they succeeded so admirably in their task. The original plan was to have responses from three scholars. The first response would be from a historian of religion-and-science who does not focus specifically on Buddhism in his or her work. The second would be from a scholar of Buddhism

who is currently involved in conversations on Buddhism and neuroscience. The third would be from a scholar of Buddhism who would bring a broad comparative perspective from outside the traditions of Indian Buddhism and Tibetan Buddhism, with which I am most familiar. However, only the first two responses appear here. The third was to be provided by William LaFleur, who died unexpectedly on February 26, 2010. Professor LaFleur was an eminent scholar of Japanese Buddhism who, in the last stage of his career, examined a meeting ground of Buddhism and science that few others have explored: Buddhism and medical science, especially around questions of brain death and organ transplant. I am honored that Professor LaFleur consented to offer a response and, together with all scholars in the field of Buddhist Studies, deeply regret his passing.

Zygon was able to persuade two distinguished scholars to fill the other two roles: historian of religion-and-science Peter Harrison and scholar of Buddhist philosophy Thupten Jinpa. I comment on each of their responses below. However, it is presumptuous to assume that all readers of this issue of Zygon have read Buddhism and Science: A Guide for the Perplexed, so I begin with a brief summary in order to provide some context for the comments that follow.

OVERVIEW AND SUMMARY OF THE BOOK

The longish introduction presents an overview of the history of the claim that Buddhism and science are compatible, beginning in the nineteenth century with lectures by Ernst Johann Eitel of the London Missionary Society, delivered in Hong Kong in 1870–71, and the Panadure Debate between a Buddhist monk and a Methodist minister that took place in Sri Lanka in 1873. This survey continues through the nineteenth century, as Chinese monks responded to condemnations of Buddhism as superstition by Chinese modernists, and as Japanese priests responded to restrictions on Buddhism by the new Meiji government. One of the Japanese representatives to the World's Parliament of Religions in Chicago in 1893, a Zen priest, delivered a lecture not on *koans* or *zazen* but on the compatibility of Buddhism and science. In the twentieth century, the chief Buddhist interlocutor of science shifted from the Theravada Buddhism of Sri Lanka and Southeast Asia, to the Zen of D. T. Suzuki, to Tibetan Buddhism and its spokesperson, the Fourteenth Dalai Lama, who remains the leading Buddhist voice in the conversation.

The first chapter deals with what, strangely, is one of the most persistent questions in the discourse of Buddhism and science: the status of Mount Meru, the *axis mundi* that stands at the center of the traditional (and flat) Buddhist world. With the great advances made in cartography in the nineteenth century, Mount Meru, and particularly the failure of any European geographer to find it, became a common element of Christian missionar-

ies' denunciations of Buddhism as a form of superstition. If the reputedly omniscient Buddha was wrong about Mount Meru, as he surely was, he could be wrong about everything. Various Buddhist responses have been offered by Buddhist figures over the past century and a half. Some have continued to argue that Mount Meru, said to be located to the north of our continent of Jambudvipa, in fact exists; otherwise, why do compasses always point north? Others have relegated it to the Buddha's provisional teachings, made in accordance with the intellectual capacity of his audience. The current Dalai Lama has said that the entire traditional cosmology (which he ascribes to the fourth-century scholar Vasubandhu rather than to the Buddha himself) is simply wrong and may safely be abandoned by Buddhists.

Whether or not Mount Meru exists is at first sight a quaint question, similar to the question of the status of Mount Olympus. But the religion of the ancient Greeks is something that we consign today to the category of mythology, while Buddhism remains, for want of a better term, a "living religion." Various gods are said to live on the slopes and summit of Mount Meru, and their existence has thus far not been explicitly rejected. In addition, the Buddha is said to have delivered some of his most significant philosophical teachings, the *abhidharma*, to an audience of gods on Mount Meru. Thus, its existence, an important component of the Buddhist worldview that is clearly denied by modern science, is not inconsequential, in part because it raises the question of where to place the dividing line that some Buddhist thinkers draw between what is "cultural," that is, historically contingent and thus able to be jettisoned without doing damage to Buddhism, and what is "essential," that is, of eternal and universal significance and hence crucial to the identity of Buddhism, however defined.

The second chapter deals with Buddhism and the science of race. In the nineteenth century, and continuing to the present day, the Buddha often has been portrayed as a social reformer, welcoming members of all castes, and outcastes, into his order of monks, declaring that all are equally capable of achieving enlightenment. In such descriptions, the stance of the Buddha with regard to caste is contrasted with that of the Brahmins, the priests who jealously guarded their knowledge and banned the lower strata of Indian society from access to it. Although the Buddha did admit members of the lower castes into the order, he was a critic not of the caste system per se but rather of the claims to superiority of the Brahmins, who, it is important to note, were his chief competitors for alms and patronage. In fact, the European portrayal of the Buddha as a lay egalitarian in conflict with a corrupt priesthood served as a surrogate form of the anti–Roman Catholicism that ran strongly through much of the intellectual discourse of the day; some called the Buddha the "Luther of Asia."

It was during this period in the late nineteenth century that race science came to the fore. The Buddha was Aryan, noble both in blood and in spirit,

qualities that made him all the more appealing to a Europe struggling with the implications of the fact that Jesus was a Semite. Certain Buddhist elites in Asia, most notably the Sinhalese activist Anagarika Dharmapala (1864–1933), used the language of race science to proclaim the superiority of the Aryan Buddha over the Semite Jesus in statements that are profoundly disquieting with the knowledge of the consequences of race science in the decade after Dharmapala's death. Some readers of my book have questioned the suitability of including a chapter on Buddhism's implication in the race science of the late nineteenth and early twentieth centuries, since race science is not real science. But elevating racism to the status of science had clear, and devastating, consequences for millions around the world, and Buddhism, so often seen as unsullied by such things, was not immune to its taint. The story also serves as a cautionary tale of how things that fairly recently had the imprimatur of "science" eventually can be shown to be yet another, and in this case deadly, manifestation of ignorance.

Because Tibet remained largely free of direct European influence, including the presence of long-standing Christian missions, the discourse of Buddhism and science so prominent in Sri Lanka, China, and Japan did not play a significant role in Tibet during the nineteenth century. It is only in the twentieth century—and especially after Tibet came under Chinese control and the Dalai Lama went into exile in 1959—that the discourse of Buddhism and science emerged in Tibetan Buddhism. The third chapter deals with the two most important Tibetan participants in that discourse, the renegade scholar Gendun Chophel (190–1951), who spent 1934–46 in South Asia, and the current Dalai Lama, Tenzin Gyatso (1935–). Particular attention is devoted to the Dalai Lama, the most prominent Buddhist figure to become deeply engaged in the topic of Buddhism and science; his views are set forth most extensively in his 2005 book, *The Universe in a Single Atom*.

The fourth chapter looks at the development of the "scientific" study of Buddhism in the West, that is, the rise of the field of Buddhist Studies in Europe, largely from roots in what once was called Oriental philology. I focus particularly on the importance of Eugène Burnouf's *Introduction à l'histoire du Buddhisme indien*, published in Paris in 1844, the founding text for the academic study of Buddhism in the West. Of specific importance for the history of Buddhism and science is that this work portrays what Burnouf calls the "human character of Buddhism," one in which the Buddha is a man who perfects himself through his own efforts and who sets forth an ethical philosophy that is free of both metaphysics and ritual. It was this demythologized Buddha, created by Burnouf, who could then be portrayed as a kind of protorationalist, whose clear-eyed vision somehow foresaw the discoveries of European science. My claim is that the discourse of Buddhism and science could not have occurred if European scholars had not painted their own portrait of the Buddha.

The final chapter deals, rather briefly, with the newest phase in the history of Buddhism and science, the recent research by neuroscientists on the effects of meditation on the brain. Research in this area is in its early stages, conducted in many cases by neuroscientists who themselves are practicing Buddhists, and what the fMRI results mean remains to be determined. This research offers something of a different turn in the discourse of Buddhism and science because it rests not simply on similarities, often vaguely perceived, between a specific scientific theory and a particular Buddhist doctrine, but rather on an empirical investigation into a central Buddhist practice. But the topic of Buddhist meditation is vast and complex, difficult to understand without some knowledge of both the history and the doctrine that underlie any particular form of it. Thus, in this chapter I urge caution about some of the larger issues at stake.

Above all, my book is intended as a history of the idea that Buddhism and science are compatible. As such, it does not have an explicit argumentative thesis. It does have an implied one. It shows that claims for the compatibility of Buddhism and science have been made in surprisingly consistent rhetorical forms over the course of more than a century and a half, years in which huge advances have occurred in the natural sciences. What is understood by "Buddhism" also has changed considerably over the period. That the claim has remained the same while the meaning of the two nouns—*Buddhism*, *science*—has changed so greatly raises a simple question that should give us pause: If Buddhism (however this abstract noun is understood) was compatible with the science of the nineteenth century, how can it also be compatible with the science of the twenty-first? Perhaps it never was, and perhaps it is not now. The more interesting question is why the claim continues to be made.

RESPONSE TO PETER HARRISON

Harrison is one of the foremost historians of religion-and-science. His books, which include "Religion" and the Religions in the English Enlightenment (1990), The Bible, Protestantism, and the Rise of Natural Science (2001), and his recent The Fall of Man and the Foundations of Science (2009), together demonstrate, with rich historical detail and incisive reading of sources, that the eternal battle between science and religion, at least in those terms, is of very recent vintage, beginning, like so many other things, in the nine-teenth century. This insight is essential for understanding the topic of Buddhism and science for at least two reasons.

First, when one reads missionary attacks on Buddhism, from Francis Xavier in Japan in the sixteenth century to Spence Hardy in Sri Lanka in the nineteenth century, Christianity is proclaimed as superior to Buddhism in part because it possesses the scientific knowledge to accurately describe

the world. Thus, for the missionaries, science was not an opponent of religion, or at least of the true religion, but its ally. The efforts by Buddhist elites to counter this claim and to argue that, on the contrary, Buddhism is the truly scientific religion (an argument that they seem to have eventually won) was directly precipitated by the Christian attacks. In a sense, the Buddhists wrested the weapon of science from the hands of the Christians and turned it against them.

Second, Harrison's demonstration that science and religion began to be portrayed as opponents only in the late nineteenth century suggests that the elevation of Buddhism as the religion (if it is a religion) most compatible with science during that same period is not coincidental. As he notes, Buddhism came to be portrayed as a kind of negative image of Christianity. Thus, Christianity has a creator God, Buddhism has no God; Christianity has faith, Buddhism has reason; Christianity has dogma, Buddhism has philosophy; Christianity (at least certain kinds) has public ritual, Buddhism has private reflection; Christianity has sin, Buddhism has karma; Christianity has prayer, Buddhism has meditation; Christ is divine, the Buddha is human. One could extend the list almost indefinitely.

Some have even gone so far as to declare that Buddhism is not a religion at all; it is a science. As Harrison explains, the implications of such a statement become evident in light of Victorian theories of social evolution (a historicism that continues to live on in some quarters, as he notes), which saw the human race progressing from the state of primitive superstition, to religion, and then to science. As a science, Buddhism, condemned as a primitive superstition by both European missionaries and Asian modernists, can leap from the bottom of the evolutionary scale to the top, bypassing the troublesome category of religion altogether.

Harrison has astutely demonstrated in his work that the category of religion has, since the nineteenth century, been increasingly defined by its relationship to science, suggesting that as religions have sought some measure of validation by science, they also have opened themselves to invalidation by scientific critique. He further argues that in defining themselves in this way religions have delimited the set of terms by which they may be understood. This is a point, although stated less clearly than by Harrison, that I try to make in the case of Buddhism. He, however, suggests that it also has been the case for other religions, each with its specific history. This is a larger project that historians of science and religion and historians of specific religious traditions might fruitfully pursue together.

The flaws of a book often are least visible to the author, and I have no doubt that *Buddhism and Science: A Guide for the Perplexed* has many flaws. Harrison, in the most polite terms, pinpoints one of which I am aware at the beginning and at the end of his response. This is my failure to address in any substantial way the issue of the historical versus the normative. The book is largely historical, but my own view of the question of the compat-

ibility of Buddhism and science is not difficult to discern. Direct statements of that view are relatively rare in the book. Yet the significant space afforded to descriptions of key Buddhist doctrines that do not easily conform to science, however understood, makes it clear that I perceive profound problems with the claims for compatibility. The most significant of those problems is that in order for Buddhism to be somehow compatible with science, much of Buddhism must be sacrificed.

The problem is that in order for me to make, or even imply, such a claim, I must know what "Buddhism" is. But in recent decades, scholars of Buddhism have been reluctant even to render that noun in the singular, speaking instead of "Buddhisms" in an effort to reflect the wide range of doctrine and practice across time and space. Thus no scholar of Buddhism would dare attempt to identify some essence or even defining characteristic of Buddhism, instead offering, when asked, a rather dry historical narrative: "Buddhism is a religious tradition that began in India around the fifth century B.C.E., founded by a figure known as the Buddha. . . . " No one, in other words, would dare to venture "what counts as genuine Buddhism," as Harrison puts it. I also do not dare to do so, but I do raise the question. It is perhaps a normative question, but it has a historical answer. For, although no scholar of Buddhism can say what Buddhism should be, a scholar can say, or at least speculate on the basis of historical evidence, what Buddhism has been for Buddhists across Asia, extending back over more than two millennia. And a scholar can say, or at least speculate on the basis of anthropological evidence, what Buddhism is for Buddhists, across Asia and elsewhere, during the present generation. It is clear that the Buddhism that is compatible with science must jettison much of what Buddhism has been in order to claim that compatibility.

That loss evokes for me the classical Buddhist doctrine of the degeneration of the dharma, the idea that as more and more time passes since the time that Buddha entered nirvana, the more difficult it becomes to follow the path that he set forth. This is a conservative vision, one that remains ever skeptical of the present moment. But predictions of when that degenerate age began vary greatly in Buddhist texts. Some are as short as five hundred years, meaning that we have been living in the degenerate age for some time now. As I suggest in the book, the claim that Buddhism is compatible with science may be seen as further evidence of that.

There is another way to look at it, however. Some scholars have begun to refer to a form of Buddhism called "modern Buddhism." Its origins are hazy, but most would agree that it has existed since at least the first half of the nineteenth century. Despite its having endured for some two centuries, not an insubstantial fraction of the entire history of Buddhism, scholars have tended to see modern Buddhism as something of a monolith, with its own defining doctrines, one of which is the compatibility of Buddhism and science. In my book I call this compatibility into question by

noting that different, and often mutually contradictory, scientific theories are called upon to be compatible with Buddhism. But it may be that modern Buddhism has existed long enough to require its own periodization, in which each period of modern Buddhism has its own favored "science." Such an approach would transform what I perceived as a problem into a key element of the modern history of Buddhism, or at least of the history of modern Buddhism. This suggestion derives not from me but from Harrison's response, and I am most grateful to him for it.

RESPONSE TO THUPTEN JINPA

The autobiographical sketch Jinpa provides is too modest. He was trained as a Buddhist monk in the Tibetan exile community in India, completing the monastic curriculum and achieving the highest academic degree in the Geluk sect of Tibetan Buddhism, the rank of geshe. He did this not on the fast track of the incarnate lama but as an ordinary monk. He went on to earn a Ph.D. in Philosophy from Cambridge. He has served as the Dalai Lama's translator for many years and is one of the most learned and skilled translators of Tibetan Buddhist texts, of all sects. He is an active participant in the most current conversations on Buddhism and neuroscience. He and I currently are working together on two large translation projects. The first is the so-called travel journals of Gendun Chopel, and the second is the extensive refutation of the doctrines of rebirth and emptiness composed in Tibetan by the early eighteenth-century Jesuit missionary to Tibet, Ippolito Desideri. Jinpa thus is eminently qualified to provide a highly informed Tibetan perspective on the question of the relation of Buddhism to science—as a Tibetan, as a Buddhist, as a scholar of Tibetan Buddhism, and as an active participant in the current dialogue.

Acknowledging the late arrival of Tibetans to the dialogue, his comments focus very much on the current scene. Indeed, I find that he provides here the single most insightful articulation of what is at stake for Tibetan Buddhism in the arena of Buddhism and science. These insights are several. Near the beginning of his essay he makes an important distinction concerning the backgrounds of the two kinds of Buddhists who participate in the dialogue: "traditional Buddhists," who bring an inherited Buddhist worldview, and Western Buddhists, who bring an inherited scientific worldview. By this latter group he means academic scientists who have become Buddhists at some point in their careers. A more detailed profile of each of these two types of Buddhists might be fruitfully compiled, determining which science and which Buddhism initially captured their imagination, and why.

I argue in my book that claims for the compatibility of Buddhism and science resulted from the colonial encounter. In the case of Tibet, that encounter was not with Europe or America but with China. Indeed, Tibet lost its independence just as the European colonies were gaining theirs. The Buddhisms of Sri Lanka, China, and Japan each had to defend themselves against the colonialist critique, even though China and Japan never became European colonies. The Buddhism of Tibet also has defended itself more recently in the voice of the Dalai Lama himself. Jinpa notes the Dalai Lama's strong interest in introducing Western science into the traditional monastic curriculum; the Dalai Lama also has expressed his hope that a Buddhist monk may one day become a famous scientist. His motivations for this hope are certainly many, but one of them is likely a wish to counter the Chinese claim that Tibetan Buddhism is a form of primitive superstition (exactly as Christian missionaries claimed about other forms of Buddhism in the nineteenth century) and to maintain the vitality and relevance of Buddhism for the modern world, a world that one day may include a free Tibet.

In describing the Mind and Life dialogues that the Dalai Lama has conducted with scientists since 1987, Jinpa explains that "the metaphysical dimension—the concepts of rebirth, karma, and the possibility of full enlightenment of Buddhism; and physicalism, reductionism, the causal closure principle on the part of the scientific worldview" are left bracketed (p. 876). Yet karma, rebirth, and the possibility of full enlightenment are among the most important foundations of Buddhist thought and practice. Physicalism, reductionism, and the causal closure principle also are highly important, especially in neuroscience. These are precisely the topics that must be unbracketed and confronted in any discussion of Buddhism and science. It is also among these topics that the most intractable disagreements likely lie. Buddhism is a dualistic system in which mind and matter are different in essential ways, with moments of mind able to be produced only from previous moments of mind; the Buddhist claim that a moment of consciousness can be produced only by a prior moment of consciousness is central to the Buddhist argument in support of rebirth. Such a position would seem entirely at odds with "the widely assumed regulative principle in cognitive science that mind equals brain and that all mental states are, in the final analysis, merely brain states" to which Jinpa refers (p. 878).

Jinpa notes that in some cases the Dalai Lama has been willing to abandon a particular Buddhist doctrine that has been shown to be empirically false, such as the existence of Mount Meru. He also suggests that on the question of the "origin of human life on earth . . . traditional sources [are] being replaced by the Darwinian theory of evolution" (pp. 877–78). This substitution seems a great deal more difficult, especially given the critique of Darwin offered by the Dalai Lama in *The Universe in a Single Atom*, one that I discuss in my book.

Jinpa notes the most important "challenges being posed by the scientific worldview to key Buddhist concepts" (p. 878), such as karma and rebirth,

and goes on to observe that historically many of the fundamental tenets of Buddhist thought developed from dialogue with non-Buddhist philosophers. Indeed, scholars have been able to identify a number of Buddhist doctrines and practices borrowed, sometimes with only the slightest revision, from Hinduism and Jainism. Such borrowings have not been acknowledged by the tradition but rather claimed as its own. Further, the biographies of the great Buddhist philosophers of India are filled with accounts of their debates with non-Buddhist, usually Hindu, philosophers. In these accounts, the Buddhists always eventually win. Yet, by the fourteenth century, Buddhism had disappeared from India.

There is only one historical point where I disagree with Jinpa. This is the statement that in Buddhism, "For once, science is encountering an intellectual tradition that traces its lineage back to more than two thousand years of inquiry yet has a history very different from the West" (p. 881). In fact, European scholars encountered the Hindu tradition first. At the beginning of the nineteenth century, there was an enthusiasm for what Europe might learn from Hindu culture not unlike the enthusiasm for Buddhism two centuries hence. That enthusiasm for Hinduism faded after India became a colony of the British, and Buddhism took its place as the most worthy of the non-Christian religions, a Buddhism largely created in Europe, as I demonstrate in my book. And two decades ago, at least in certain circles, there was enthusiasm for the scientific measure of meditation similar to that which exists today. However, it was not Buddhist meditation but Transcendental Meditation, a practice derived, regardless of its claims, from Hinduism. The research conducted on TM, typically by TM practitioners, has since been discredited. But does the fault lie with the methodology or the tradition of the practice?

As one of the central interlocutors in conversations on the emerging field of "contemplative science," Jinpa is to be applauded for his cautious tone as he notes that it is unclear in the current state of research "whether such a field will have any lasting impact on science as a whole" (pp. 879–80). He closes his response with the hope that the encounter between Buddhism and science will accomplish the two aims of helping Buddhists to update their understanding of the physical world and helping science become more human. This hope has a long history, having been stated by Buddhist figures from a number of nations, dating back to the nineteenth century. It often has been expressed with the claim that science is better able to describe the outer world and Buddhism is better able to describe the inner world, a claim that carries with it many assumptions about Buddhism and about science that deserve further reflection. But this old hope, expressed in the past, is one that we share for the future.

CONCLUSION

A recent research program of the Netherlands Organization for Scientific Research (NWO) has the elegant title "The Future of the Religious Past." I have baldly appropriated this phrase for the title of these brief comments, but with a somewhat different meaning. All religions obviously have a past that figures prominently in their representation, both for the present and the future. Two questions that I raise in *Buddhism and Science: A Guide for the Perplexed* are (1) how much of Buddhism, in a certain sense how much of the Buddhist past, must be sacrificed in order for it to be compatible with science, and (2) how much that sacrifice costs. Such questions, as Harrison observes, can and should be asked in the case of all religions.

However, the past also has a different meaning in Buddhism that is germane here. With its central doctrines of karma and rebirth, and with its doctrine of the bodhisattva—the being who perfects himself over billions of past lives in order to achieve buddhahood for the sake of future generations—the past shapes the future in specific, and consequential, ways in Buddhism. Yet, despite the apparently infallible mechanism of karma—a mechanism, it should be noted, that delighted certain Victorian enthusiasts—much of Buddhist practice over the course of more than two millennia has been directed at techniques for negating the past, for circumventing the law of karma. One thinks of the Chinese Buddhist practice of sending "spirit money" to the dead in order to bribe the judges of hell. With the rise of the Mahayana around the beginning of the Common Era, certain texts declared that all beings would become bodhisattvas, and hence buddhas; other texts proclaimed that all beings are already buddhas now. And nirvana itself, the storied goal of the tradition, is in one sense a negation of the past in order to prevent the future. The past is thus particularly powerful in Buddhism, and techniques for its subversion, or at least its radical revisioning, have a long and venerable history.

Buddhism and Science: A Guide for the Perplexed is a modest plea for this past. Or perhaps it is three pleas about what Buddhists call "the three times": the past, the present, and the future. The first asks us to recall that the claim that Buddhism and science are compatible is part of the past; it has already been made many times, for more than a century. The second asks—in the present rush to proclaim that Buddhism is compatible with science—that Buddhism's long past, and all that it connotes, not be forgotten. The third asks, in accordance with classical Buddhist doctrine, that we see the ever bright future of the meeting of Buddhism and science as determined in important ways by the history of Buddhism, both in Asia and the West—determined, in other words, by the past.

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