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Caveat Emptor: The Dalai Lama’s Proviso and the Burden of (Scientific) Proof¹

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Abstract: A more complete understanding of the Dalai Lama’s intellectual milieu and mental framework serves to contextualize and appraise his contributions to the discourse on Buddhism and Science in general, and the so-called Mind and Life Dialogues in particular. In addition to providing indispensable background information, a fuller expression of his foundational views and motives sheds light upon the idiosyncratic way the Dalai Lama engages new fields of knowledge. Thanks to the Dialogues’ format and the transparency of the Dalai Lama’s scholastic mentality, the way in which Mind and Life participants meet various challenges in practice offers enough traction to retrieve and critically appraise real-time patterns of engagement and innovation. This should prove to be instrumental in determining the Dialogues’ measure of success, at least by its own standards and stated purpose. Following this approach, the Dalai Lama’s long-time use of a proviso derived from Tsongkhapa’s reading of Middle Way philosophy as a methodological distinction that delineates the scope of Science warrants specific attention.

Keywords: Buddhism; Tibetan studies; Madhyamaka; science; scholasticism; philosophy; apologetics; mind; consciousness

1. Introduction: The Dalai Lama’s Pursuit of Scientific Knowledge

Even though the field of Tibetan Buddhist Studies has seen tremendous growth since the 1970s, few in-depth, academic works have examined the present Dalai Lama’s appropriation and expression of

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Tibetan Buddhist philosophical and religious thought. Images of the Dalai Lama's famed openness and tolerance often precede him, effectively blocking a view of the robust and resilient nature of some of his established ideas. His reading of Buddhist theory and practice remains largely uncontested, obscuring some of the tensions it entails. Public understanding of the nature and scope of the Dalai Lama's thought suffers from a definite lack of critical analysis. Consequently, little light has been shed on the vested religious, philosophical, and institutional interests that, at least partially, govern the Dalai Lama's pursuit of scientific knowledge.

A similar lack of context and depth would hamper any serious attempt at interpretation of the Dalai Lama's substantive contribution to the discourse of Buddhism and Science in general, and the so-called Mind and Life Dialogues in particular. For a well-rounded discussion of his interaction with Western scientists within Mind and Life must involve not merely what the Dalai Lama says or writes, but also how he thinks. Teasing out the Dalai Lama's catalogue of philosophical positions, religious beliefs, and epistemic resources opens a window on the way he relates to Science and scientists.

At this point, by way of introduction, a first-pass overview highlights the merits of developing a more grounded approach to the evaluation of the Dalai Lama's interactions with scientists. The Dalai Lama regularly exhorts the Tibetan monastic community to recognize that a working knowledge of fundamental scientific principles has added value in propounding Buddhist thought. At the same time, he champions Buddhists' right to a measured, critical reception of Science. On his view, Tibetan Buddhist thinkers ought to engage scientific thought on their own terms, breaking into their own traditional rhetorical and epistemological repertoire. Leading by confident example, the Dalai Lama himself occasionally deflects—and even reverses—the probative burden through the application of an age-old Tibetan Buddhist caveat.

Appreciating that a lack of scientific evidence for certain Buddhist beliefs does not preclude their validity *per se*—the said proviso—seems straightforward enough. The thrust of the Dalai Lama's argument, however, may go beyond hypothesizing what can or cannot be thought to be scientifically established. Scientific progress ought to be subservient to the well-being of sentient life, the Dalai Lama believes. Therefore, besides their scientific tenability, the new realities that scientific discoveries create—positive and negative—ought to be considered. Likewise, beside their cogency and merit, the soteriological efficacy of Buddhist doctrines such as rebirth ought to be factored into the appraisal of scientific findings. On his view, therefore, at any given moment of assessment, Buddhists' ontological, epistemological and moral commitments may pull in different directions.

A finegrained understanding of the Dalai Lama's mentality not only affords a close examination of the Dalai Lama's personal engagement of scientific ideas. In addition, it brings into focus the ways in which he reformats—wittingly and/or unwittingly—traditional Buddhist doctrines to incorporate modern scientific views and have scientists recognize their worth. Thus, seemingly obvious fits between Buddhist and scientific views serve as a marker for patterns of innovation, as well as attempts to nourish and sustain Buddhist thought in *terra incognita*.

Reinventing Buddhism, as it were, the Dalai Lama himself—a scholastic *pur sang*—must continuously strike a balance between the different inclinations and talents that his intellectual biography attests to. Taking these “balancing acts” into account, observing the Dalai Lama give shape to his personal take on what it means to be “modern”, provides ample room for nuanced interpretations

that do justice to his ulterior motives and personal agenda. This, in turn, helps demonstrate that, in his case, openness and defensiveness are not communicating vessels.

On this view, the reciprocal exchange of ideas between the Dalai Lama and scientists is governed as much by rhetoric, contestation and ethics as by empiricism and logic. Potentially, the archived videos of the Mind and Life Dialogues present a unique opportunity to witness one Buddhist thinker's epoch-making attempt to reinvent and reassert ancient doctrines to suit the perceived needs of our day and age. Evidently, a realistic assessment of the Dalai Lama's substantive contribution to Mind and Life requires an adequate contextualization of his views and motives, be it in real-time through his translators' and interlocutors' effort or retroactively through non-participating observers' own. Meanwhile, disinterested onlookers do best to forestall prejudgements that are based on little more than the Dalai Lama's continuous presence in the public eye.

2. The Mind and Life Dialogues

Some forty years ago, out of a personal interest in technology and science, Tenzin Gyatso, the 14th Dalai Lama (b. 1935) began seeking contact with Western scientists ([1], p. 1). Since then, he has deepened and widened his interest through recurrent conversations with expert scientists in areas promising a constructive exchange with Buddhist understandings. From 1987 onwards, an intermittent series of weeklong meetings is held at the Dalai Lama's residence in Dharamsala, India. In the privacy of his own surroundings, away from the media, the Dalai Lama, assisted by a dedicated team of translators, engages selected scientists in informal, in-depth conversations on topics of mutual interest.

These Mind and Life Dialogues are hosted by the Mind and Life Institute, formally incorporated in 1990. Its mission is "to promote and support rigorous, multi-disciplinary scientific investigation of the mind which will lead to the development and dissemination of practices that cultivate the mental qualities of attention, emotional balance, kindness, compassion, confidence and happiness" [2].

The Mind and Life Institute's founders aspire not merely to have the participating scientists learn about Buddhism in the abstract. Rather, the scientists should learn from Buddhism through personal interaction with the Dalai Lama and by collaborating with other Buddhist contemplatives. The Dalai Lama himself, the Institute submits, brings to these meetings a thoughtful consideration of the humanistic implications of scientific research, as well as "a high degree of intuitive methodological sophistication" [3].

Through the years, a plural aspiration has set the Mind and Life Institute's topical agenda. Founder and long-time scientific coordinator Francisco Varela (d. 2002) foresaw two major contributions Buddhism might offer to science. The first would be the unification of subjective and objective perspectives on conscious experience. In effect, this amounts to the integration of first-person, experiential findings derived from Buddhist meditative practice with third-person, empirical data of cognitive and affective neuroscience. Such integration, Varela thought, would provide researchers with a new, improved frame of reference to interpret and test their observations.

Varela felt that the meeting of Buddhism and Science holds a great promise of fundamental, constructive changes in the way scientists conceive of long-standing problems. At a fundamental level, he wrote, Buddhist thought affords a view of the material universe that has no counterpart in the philosophical heritage of the West. As a second contribution, therefore, a sustained exchange with the

Dalai Lama and other Buddhist contemplatives on the foundations of physics would have scientists rethink their logical and epistemological repertoire. This should help overcome the conundrums that confront, for instance, theoretical physicists involved in the attempt to describe all physical forces in a single, unified theory [4].

Buddhism should stand to gain as well. As a third contribution, the Institute anticipated, the Dalai Lama's personal involvement could spark other Tibetan monastics' interest in science. This would invigorate his campaign to introduce science education into the centuries-old curricula of Tibetan monastic colleges in India. Lastly, as a fourth contribution, Tibetan monastics' introduction to modern science could help revitalize the Tibetan philosophical tradition [3].

With these objectives the Mind and Life Institute embarked on a complex mission. From its inception, dedicated coordinators and translators took great care in helping the participants negotiate the linguistic and conceptual hurdles that tend to hamper any cross-cultural dialogue. Pre-empting scepticism within the wider academic community, the Institute made a conscious effort to involve authoritative scientists and leading contemplatives at all levels of discussion. It aspires, ideally, to have each and every Mind and Life event exhibit the competence, rigor and finesse that are thought to be distinguishing characteristics of science. As founding chairman Adam Engle said, the Institute's silent motto is "impeccable" [5].

Individual participants meet considerable challenges: simultaneous interpreting; unfamiliar jargon; tacit knowledge; conceptual differences, and divergent configurations of knowledge. ([6], pp. 34, 246; [7], pp. 31–45). The Dalai Lama's lack of background knowledge, particularly in the field of mathematics and statistics, is a constant consideration, as is most scientists' lack of ready knowledge in the field of Buddhist ontology, epistemology, and logic. The Dialogues' deceptively simple formula—free-ranging, in-depth topical discussion—requires a continuous interfacing of diverse academic disciplines and fields: Buddhism; Science; Tibetan Studies; Buddhist Studies; and Religious Studies and Western Philosophy, to name a few. All of this in real-time, across daunting linguistic, cultural, religious, and philosophical barriers.

These complexities determine the range of views taken by any one participant, and his or her perception of the issues at stake. They reverberate through the discussants' rhetorical posture and substantive contribution. A heightened awareness of this dynamic serves to discern the scope and cogency of the interlocutors' reasoning—for themselves, as well as for others. It helps define and track the onus of proof, the responsibility to provide sufficient warrant for a position taken. Additionally, it makes one sensitive to the relevance particular discussions might have to their participants, and helps monitor the Dialogues' threefold dynamic: intellectual, philosophical, and normative.

3. Contested Views

Naturally, the Dalai Lama shares certain beliefs with other Buddhists. They all recognize fundamental principles such as the Four Noble Truths. The Buddhist history of ideas presents us with common denominators such as the philosophy of emptiness. Doctrines like *karma* and dependent origination are widespread among Buddhists everywhere, as are the practice of meditation, prostration, and circumambulation. However, Buddhists' self-understanding is as variegated and complex as

modern and pre-modern religious' understanding of religion ([8], pp. 1–7). There is no singular Buddhism, and no single Buddhist position towards religious dissidents ([9], p. 3).

No Buddhist teaching's ubiquity, therefore, should detract from this: Most every substantive view the Dalai Lama takes up within the context of the Mind and Life Dialogues is likely to be contested by Buddhists who take a radically different philosophical position. Upon closer inspection, even the most ostensibly straightforward view may have ramifications that have been hotly debated within the Buddhist tradition for centuries, right into the present. The Dalai Lama's representation of Buddhism, even while it remains uncontested, frames others' representation of Buddhism as well.

The participating scientists find themselves in a similar situation. Even though conscious efforts are made to acquaint the Dalai Lama solely with mainstream scientific views, most every summary review of the state of affairs in a particular field is likely to be contested in one academic quarter or other. No matter how authoritative the participating scientists are in their own area of expertise, upon the podium set by the Mind and Life Dialogues they rarely presume to speak for their entire discipline, never mind Science as a whole. In the absence of alternative views, however, the scientific merit of the cited theories and findings—along with their chances of falsification—must remain opaque to non-specialists such as the Dalai Lama and his monastic entourage.

Their multiformity notwithstanding, Buddhism and Science—conceived as the broadest of intellectual traditions or cultures—do entail similar pursuits: the methodical formation, exchange and testing of human ideas. Moreover, adapting to the changing circumstances of their day, however imperceptibly, both Buddhism and Science continue to evolve. As a human occupation, a communal practice, Buddhism and Science are both irreducibly complex, heterogeneous, and contested.

Through time, within these two traditions different branches of knowledge and areas of expertise wax and wane. Each of these fields projects ground rules, best practices, received wisdom, tacit knowledge and, of course, crucial mistakes and fatal flaws. Within both traditions foundational structures and practices are formalized: intersubjectively verifiable formulas, protocols, controls, manuals, review procedures. They both recognize that formalizations offer no perfect fidelity, and no complete transfer of knowledge either. This only goes to say that in Buddhism and Science—as in the practice of Law—who has the burden of proof matters.

Ideally, both Buddhism and Science are the province of men and women who are properly initiated into their practice, whose expertise is accepted by their peers. Buddhists and scientists alike answer to standards of intellectual integrity, methodological competence, and professional objectivity. Normative though these conventions might be, day to day practice is imperfect. Often what passes as the best approximation to truth is enough proof to go on. Even so, the very idea of objectivity and a collaborative, disinterested pursuit of truth involves, in Bourdieu's word, considerable symbolical capital. It brings ulterior motives and personal agendas into play: expertise involves authority, authority involves credibility, credibility involves prestige, prestige involves identity, identity involves stakes, and stakes involve contestation and conflict.

4. Leading Intellectual, Elusive Thinker

Although the present Dalai Lama enjoys a considerable measure of respect and reverence, history shows that his standing does not preclude dissent—not even within his own Gelug monastic order [10].

Contrary to what is often assumed, the Dalai Lama is not its formal head. That position is held by the Ganden Tripa, the abbot of Ganden monastery, a rank awarded to the most accomplished masters of the Gelug lineage. From the 17th century onwards the Gelug monastic universities of Sera, Drepung, and Ganden have conferred an unparalleled degree of authority on the office of the Dalai Lama. Their obedience to any particular incumbent, however, is not unconditional. At the beginning of the 20th century, for example, the 13th Dalai Lama's plans for reform were thwarted by orthodox Gelugs ([11], pp. 815–22).

The past decades, epitomizing its recurrent fascination with Tibet, the Dalai Lama has achieved iconic status in the West [12–23]. He is a much sought-after spokesman for Buddhism, and a prolific author of international stature. His collected work consists of hundreds of (co-)authored publications in English, dozens of which have been on bestseller lists. On his frequent tours, the Dalai Lama makes headlines the world over, drawing crowds and media wherever he goes. He is a Nobel laureate and recipient of the highest civilian honor bestowed by the United States Congress. The Dalai Lama appeared on *Time* magazine's annual list of the 100 most influential people in the world in 2004, 2005, and 2008, and was named Doctor *Honoris Causa* many times over. In 2012 the Templeton Foundation awarded him its annual prize. He converses with prime ministers, presidents, popes and kings, and shares the stage with eminent scientists and religious leaders of all denominations. Without exaggerating one might say that the Dalai Lama has become one of the leading intellectuals of our time.

In spite of the abundance of autobiographical detail in the Dalai Lama's oeuvre and countless recapitulations of his life story in print and in film, a comprehensive intellectual biography is yet to be written [1,19,24–28]. A clear picture of the constituent elements of the Dalai Lama's cast of mind emerges only to those who succeed in piecing together highly diverse information from scattered sources [14,29–33]. Few scholars have explored his vast and readily available oeuvre as if he were a Buddhist philosopher in his own right. Precious little is known about the evolution of his thought through time. To date, the impact of science and modernity upon the Dalai Lama's thinking has defied precise explanation, as does his continued endorsement of traditionalist ideas and practices [14,29,33–35]. Apart from the barbed rhetoric of successive Chinese government officials, few observers openly criticize the Dalai Lama's public image and stated opinions, or his stance *vis-à-vis* science [36–40]. Arguably, in addition to being one of the world's leading intellectuals, the Dalai Lama is one of its most elusive thinkers.

5. Not A “Natural” Scientist

The Dalai Lama's personal interest in technology and science, evidenced in the best-selling *The Universe in a Single Atom* has long seeped into public consciousness [1,39]. His declared readiness to have Buddhism adapt its teachings to hard scientific facts is lauded on all sides, as is his frequent exhortation that scientific research be guided by secular moral principles. In the absence of accessible, coherent accounts of the Dalai Lama's intellectual and philosophical development through time, distinctive qualities of his worldview and discourse tend to be either completely overlooked or arbitrarily reduced—both within academia, and without. His views are often simplified, obscuring the complexity of his positions and the tensions they entail ([19], p. 177).

Without further knowledge, it is therefore hard to judge whether the self-understanding the Dalai Lama projects within *Mind and Life*—his Buddhist *persona*, so to speak—is orthodox or heterodox; canonical or apocryphal; conservative or liberal; partisan or equitable. *A prima facie* it is hardly possible to establish just what kind of modernism the Dalai Lama embraces, and how much support his views have within the Tibetan tradition as a whole. For these reasons, the Dalai Lama’s presentation of doctrinal issues during *Mind and Life* meetings, no matter how penetrating, is best taken to be tentative, a qualification he himself, incidentally, is only too willing to add.

Occasionally, the Dalai Lama draws the attention of the wider public to features of his world of experience that might give pause to scientists. His frequent consultation of oracles and the use of divination in day-to-day decision making on matters of religion and state, for instance, or seemingly archaic comments on consensual homo- and heterosexual acts [41–46]. In addition, critical studies have allowed some insight into the Dalai Lama’s direct involvement in a prolonged internecine feud over a wrathful Tibetan spirit [10,14,47,48]. Additionally, in 2011 the Dalai Lama published a detailed account of the procedure that ought to determine the future of his own lineage of reincarnation [49].

During a conference on Buddhism and law at the University at Buffalo Law School, the Dalai Lama openly qualified his commitment to the separation between church and state. He made a distinction between two types of politics: “party politics” on the one hand, and the involvement with a national struggle on the other. Buddhist monks should completely disassociate themselves from the former, he said. His own involvement as a representative of the Tibetan people, however, should be seen as Buddhist practice [50–52]. This view does not sit well with politicians and legal experts in the West, whose discourse on constitutional law does not provide for a religiously inspired fusion of the secular and the sacred [50].

Two anecdotes from the past illustrate the Dalai Lama’s ambiguity towards a common phenomenon that by modernists’ account is fully explained by the Earth sciences. On the night of 15 August 1950, Heinrich Harrer and the Dalai Lama experienced an earthquake in Lhasa. Seismologists later determined that the earthquake had a magnitude of 8.6 on the Richter scale—one of the worst seismic events ever recorded. It led to widespread devastation and had severe effects on topography and the regime of rivers throughout the Himalaya [53]. Eyewitnesses reported that the earthquake was accompanied by the distant sound of detonations and an undetermined celestial glow. In Tibet earthquakes were thought to be an evil omen. The young Dalai Lama, typically, was eager for a scientific explanation ([54], p. 259). He thought Harrer’s impromptu exposé on seismic activity, reducing each observed phenomenon to plate tectonics and physical forces, to be less than convincing, however. Recounting the occurrence in 1990, the Dalai Lama still found it easier to accept that what happened was metaphysical, and remains beyond scientists’ ken ([26], p. 55).

On a similar note, at a divination ceremony on 8 February 2000—mere weeks before *Mind and Life VIII*—the Dalai Lama predicted that his hometown Dharamsala would face a devastating earthquake before early February 2001. After the prediction had been confirmed by high lamas and the highest ranking Nechung Oracle, every Tibetan monastery was requested to perform prayers to avert a catastrophe. The Department of Religion and Culture of the Tibetan Government-in-exile issued prayers for lay people to reduce the risk [55]. Dharamsala is in fact situated in the highest risk zone in the earthquake zoning map of India. On 26 January 2001, an earthquake with a magnitude of 7.6 and 7.7 hit the Indian state of Gujarat, killing around 20,000 people. Dharamsala was spared [56]. To take

the Dalai Lama as a “natural” scientist, as more than a few observers do, one must turn a blind eye to some distinctly pre-scientific inclinations.

6. Revitalizing the Tradition

His traditional views notwithstanding, the Dalai Lama actively promotes the reception of science within the Tibetan community-in-exile. In 2000, the Dalai Lama called upon his fellow Tibetan Buddhists to emulate the intellectual discourse at the Buddhist monastery of Nalanda (India), between the 5th and the 12th century CE. Citing this era as one in which Buddhism thrived on a creative tension with rival views prevalent in that day and age, he urged Buddhist thinkers to actively engage with modern, scientific views and thereby revitalize their tradition [57]. As a part of that comprehensive vision, in 1998 the Dalai Lama asked the Tibet Institute in Rikon (Switzerland) for assistance in providing Tibetan monastics in India access to scientific education. This led to the foundation of the Science meets Dharma project, introducing science classes into local Tibetan monasteries in India and building a team of native teachers and translators [58].

Two years later the Dalai Lama installed the Science for Monks program, offering a select group of monastics from most every Tibetan Buddhist order their first encounter with modern scientific thought [59]. In his inaugural address the Dalai Lama remarked that some of the ancient philosophies that traditionally serve as the touchstone of Buddhist thought have all but disappeared. Tibetan monastics should study contemporary religion and science instead, he ventured. Not to criticize or refute alternative views, but to secure and strengthen their faith and to better convey Buddhist insight:

(...) if one could study modern science, which in its search for truth, has certain affinities with Buddhist philosophy and tenets, I feel they would start to generate a steadfast and deep-rooted faith in the teachings of the Buddha. This would further contribute in the preservation and dissemination of Buddha-dharma. Moreover, when introducing Buddhist teaching to the new generation of Tibetans, if we are able to present the views of both Buddhism and modern science by drawing their comparisons, I am sure the teachings would be more valid, practically scientific, and easily comprehensible. This is the best method of teachings that can generate belief and conviction in the mind of people ([57], p. 7).

In 2007, the Dalai Lama became Presidential Distinguished Professor at Emory University, Atlanta, the first academic appointment he accepted. On his suggestion, the Emory-Tibet Science Initiative develops a comprehensive science education to be implemented within the core Tibetan monastic curriculum. To this end, Emory faculty from various scientific disciplines, together with a team of translators, prepare a body of science textbooks, primers and supplementary materials in Tibetan and English. To expedite the introduction of scientific jargon into the Tibetan lexicon and advance the translation process, Emory also hosted the first and second International Conference on Science Translation into Tibetan. Eventually, a self-sustaining science programme for the entire monastic population in exile, run by indigenous Tibetan teachers, should come into being ([60]; [61], p. 108).

These conjunctions of Buddhism and Science are not without precedent, nor without tension. In *The Making of Buddhist Modernism* David McMahan explores Buddhism’s earliest encounters with modernity. European colonialism in Asia, his findings show, strongly influenced the Buddhist history

of ideas. Adopting some, contesting other features of 19th century Orientalist depictions, each in accordance with his own religious agenda and cultural disposition, Buddhist thinkers effectively cocreated hybrid versions of Buddhism congruous with modernity.

Cast in terms drawn from a different cultural context, modern representations—no matter their historical accuracy—thus conditioned what Buddhism has become [62,63]. From the late 19th century onwards, various forms of Buddhist Modernism gained cultural currency in the West especially due to Buddhism’s representation as a religion uniquely compatible with modern science:

The compatibility of Buddhism and modern science has become not only a staple of popular Buddhist literature but also a hypothesis in a number of quite sophisticated experimental studies. While all historical religious traditions in their encounters with modernity have had to reinterpret doctrines in light of science’s dominance, symbolic capital, tremendous transformative effects on the world, and unsurpassed legitimacy in establishing “what is the case”, perhaps no major tradition has attempted to ally itself with scientific discourse more boldly than Buddhism ([63], p. 90).

McMahan notes that the Dalai Lama’s involvement with scientific research does not go uncontested. His efforts in this arena make manifest a “realm of tension” between Asian and western approaches to meditation ([63], pp. 204–11). There are dissenting factions within the traditional community of meditators, “as they must now renegotiate the place of meditation in their traditions and beyond” ([63], p. 274). On this view, the present discourse of Buddhism and Science is seen to be continuous with the encounters between Buddhist thinkers and European colonizers and missionaries in 19th century Asia. Indeed, historian of religion and Tibetologist Donald Lopez has noted how remarkably similar claims for the compatibility of Buddhism and Science have remained, both in content and rhetorical form. Even while the referents of the terms “Buddhism” and “Science” shifted considerably through the years, Lopez writes, the Buddha is still thought “to have somehow anticipated the most up-to-date view of modern science as thousands of pages of the calendar have been turned” ([30], p. xii).

7. Normative Involvement

By the dawn of the 21st century, adherents of Tibetan Buddhism, which scholars in the West initially regarded as a debased form of Buddhism marred by accretions of magic, superstition and idolatry, had become the esteemed conversation partners of physicists, biologists and neuroscientists ([30], pp. 28–30). Today, the compatibility of Buddhism and Science is taken as a premise in much contemporary Buddhist literature and scientific research. Indeed, in Buddhist circles in the West it has become commonplace to represent Buddhism itself as an “inner science” and Buddhist meditation as a *bona fide* scientific experiment ([64]; [65], pp. 51–73).

In the West especially, the representation of Buddhism’s compatibility with Science *in abstracto* constitutes a strong cultural asset, which reinforces its popular appeal. This only goes to say that should the Mind and Life Dialogues *in concreto* cause authoritative observers to reframe Buddhism as a religion *incompatible* with science, exponents of the opposite view stand to incur symbolic costs. Lopez hints at this, asking: What is it that sustained Buddhism’s long conjunction with Science? Why

should Buddhists like the Dalai Lama feel they have to harmonize with Science, or even absorb science into Buddhism? Or, interestingly, could Buddhism ever renounce its attachment to science ([30], pp. 3, 24, 32, 35, 60)?

Due to their widely diverging origins and background, the overlap between the terminology and concepts of Buddhism and Science is limited. To maintain the flow of the discussion, Tibetan teachers in the West, assisted by interpreters and other Buddhist scholars, must often rethink, rephrase and reduce traditional Buddhist views *ad hoc*, on the spot ([7], p. 31). The Dalai Lama is no exception.

If McMahan's analysis is right, the Dalai Lama's impromptu depiction of Buddhism to Mind and Life participants and observers shall condition other, novel forms of Buddhist modernism. Indeed, the Dalai Lama himself already makes mention of a "neo-Buddhist perspective", consisting of insights derived from the interface between Western science and what he calls the Nalanda tradition of Buddhism ([66], p. 88).

Any such process, says McMahan, "involves a reconfiguration of both tradition and context through contestation and negotiation as much as enthusiastic embrace" ([63], p. 19). On his view, to plausibly mould Buddhism to the contours of Science "by comparison"—as he put it in 2000—the Dalai Lama would have to impart his view of Buddhism in a way that not only explicates its theoretical understanding in terms of Science's intellectual discourse, but resonates with the latter's prereflective tendencies and self-understanding as well. On this view, a tight fit between the two is indicative of a dynamic of adaptation and acculturation:

The reason Buddhist literature often appears to meet so seamlessly with our everyday assumptions is that modernist authors have found ways, no doubt often unconsciously, of articulating Buddhism in the languages of modernity ([63], p. 21).

A great deal can be learned, says McMahan, from the way in which Buddhist contemplative practices have generally come to be situated in the discourses and practices of modernity. In the West, Buddhist meditation tends to become a mode of open-ended, empirical inquiry, unbounded by the traditional constraints that delimit its purpose and function. It is being decontextualized, projected into a new realm of psychological intervention and mental development, and thereby altered:

The meaning, purpose and social significance of Buddhist meditation has changed in important ways as a result of its encounter with modernity. It has in some contexts come to be seen as the central practice of Buddhism and at the same time become detraditionalized, privatized, and unmoored from institutional authority and its traditional soteriological significance—in some cases even taking on a life independent of Buddhism altogether ([63], p. 21).

In the case of Buddhism and Science, this reconfiguration is often governed by a logic of complementarity, assigning each domain its proper scope and expertise: That of mind and matter, or the subjective and objective, for instance, and that of first-, second-, and third-person perspectives on consciousness ([64]; [67], pp. 49–56, 79–83; [68,69]). It remains to be seen if the Dalai Lama's adaptation of Buddhism fits a predominant pattern. After all, he may develop his own kind of modernity. Meanwhile, though, one does well to realize that the Dalai Lama's depiction of Buddhism to his scientific interlocutors within the Mind and Life setting is *already modernized*. At the same time,

his involvement is normative: It provides an interpretive framework that affects Buddhism's development. Although it is too early to say what the Dalai Lama's notion of "modernity" shall amount to, some constituent elements are already emerging.

8. Critical Reception

The Dalai Lama believes that Buddhism and Science have a shared objective in serving the common good of all living beings. From a Buddhist perspective, though, not every course of scientific research is worth pursuing, he writes. While scientific progress may contribute towards a better understanding of the world and our place in it, the new realities that fundamental discoveries and technological innovation give rise to should also be taken into account:

Science is vitally important, but it is only one finger of the hand of humanity, and its greatest potential can be actualized only so long as we are careful to remember this. Otherwise, we risk losing our sense of priorities. Humanity may end up serving the interests of scientific progress rather than the other way around. Science and technology are powerful tools, but we must decide how best to use them ([1], p. 11).

Clearly, the Dalai Lama feels that soteriological utility ought to trump scientific or technological exigency—at least in certain, unspecified cases ([1], pp. 10–13; [28], pp. 119–28). Time and again he submits that the scientific view does not provide knowledge of all that is knowable: "There is more to human existence and to reality itself than current science can ever give us access to" ([1], p. 13). He has "a conception of science that does not claim the totality of reality", explains Thupten Jinpa Langri, the Dalai Lama's long-time translator and interpreter:

It really depends on your conception of the scope of science. If you believe that anything that is knowable, anything that is real, has to somehow come under the scope of science, then of course you have conflict. But if your understanding of science is that science is a particular way of doing things—a particular way of knowing that includes a particular methodology—then some aspects of reality may fall into this category and some aspects may not. For example, right and wrong, good and bad have no scientific status. Science cannot tell us what is right and what is wrong. You cannot derive moral statements from statements that have to do with fact. And this has been acknowledged in the West since David Hume's time. Hume famously stated: "No ought from is." And in a sense His Holiness is agreeing. Science is in the business of trying to understand the facts. But how we use the facts is a different category of question. ([61], p. 76).

Even so, the Dalai Lama warns fellow Buddhists that neglect of the insights and discoveries of science makes for an impoverished practice, and constitutes a latent fundamentalism.

The past decade the attendance of Tibetan monastics, in particular those who partake in the Science for Monks program, during Mind and Life Dialogues, has visibly grown. Evidently, the revitalization of Buddhist thought advocated by the Dalai Lama presupposes these scholars' critical, selective reception of science. Even though he leaves the precise criteria unstated, the Dalai Lama expects them to measure the added value of scientific knowledge by Buddhist soteriological standards. His interest in revitalizing Buddhism, paired with other Tibetan monastics' direct involvement, adds a distinct

normative dimension to the mainly intellectual and philosophical dynamic between Buddhists and scientists that Francisco Varela envisaged.

The Dalai Lama himself exhibits a robust self-confidence in favoring a tempered, critical reception of science over a blanket endorsement. Public support for his policy is fragile, however. The reception of modern, scientific thought within Tibetan society and culture—amongst both monastics and laity, in exile as well as in Tibet—is still in its infancy ([1], p. 5; [34], pp. 326–29; [70,71]; [72], pp. 213, 244, 266); [73], [74], pp. 336–75). The exiled monastic institutions are autonomous bodies, with the acting abbots as final authorities ([61], p. 108). Tibetan monastics have met the Dalai Lama’s endeavor with enthusiasm as well as—thinly disguised—opposition. Within the Buddhist community at large, opinions differ on the advisability of a convergence of Buddhism and Science ([1], p. 2; [34], pp. 326–29; [66], pp. 219–20; [67], p. 42; [61], p. 108; [73]; [75], pp. 63–105; [76], p. 63).

Thupten Jinpa, for instance, warns against the danger that “traditional Buddhists” buy into the “naive perception” that science is the only avenue for understanding the real:

(...) if they do, then many aspects of the tradition become problematic. I am concerned for younger members of traditional Buddhist communities, because as they become interested in their heritage—and given that their command of their own mother tongue is not highly developed—they end up reading books written by contemporary Western Buddhist writers. I often remind them that they have to be careful not to confuse the portrait of Buddhism that they will see in these popular writings with traditional Buddhists’ view of the tradition; for example, many contemporary Western Buddhists have little place for devotion in their practice. What can happen is that young people read these popular books and they start reinterpreting. Then there’s a loopback effect that makes them feel alienated from their own traditional-Buddhist way of doing things ([61], p. 78).

As far as the Dalai Lama is concerned, the pursuit of scientific knowledge ought to be subservient to the needs of all that lives. For that reason, he believes that the course of Science—Mind and Life Dialogues included—ought to be governed by ethics as he understands it. Whatever the merit of his personal assessment of Science, the Dalai Lama’s moral judgement and authority alone are not decisive factors, though. Within the Buddhist community readings of contested doctrinal issues are subject to forms of peer review. There exists no Buddhist equivalent to the Papal Congregation for the Doctrine of the Faith, however. Since the historical Buddha’s demise, roughly 2500 years ago, the Buddhist tradition as a whole admits of no other doctrinal authority than insights derived from seldom held, *ad hoc* gatherings of elders representing the Buddhist community at large.

9. Formative Encounters

The Dalai Lama’s fervor in advocating science is not the product of a modern Western education. Georges Dreyfus is one of the few scholars with an in depth, experiential understanding of Tibetan monasticism who gives extensive consideration to the Dalai Lama’s intellectual formation from the mid 1950s onwards ([19], pp. 172–79). He is the first Westerner to obtain the degree of Geshe Lharampa through the monastic curriculum of the Gelug tradition. Like the Dalai Lama and Thupten

Jinpa—who hold the same title—Dreyfus is the product of a scholastic education that champions scholarship and debate, and initiates its graduates into a complex and ornate metaphysical system [34].

Dreyfus specifically notes how limited the role of Western thinkers in the Dalai Lama's formative years has been. In 1956, while the relations between China and Tibet deteriorated, the Dalai Lama first visited India, the country where he has lived in exile since his flight from Tibet in 1959. These first encounters in India, writes Dreyfus, were most formative of the Dalai Lama's stance toward modernity. The intellectuals he met were people the Dalai Lama could identify with. They demonstrated to him how one could be religious and modern at the same time. In doing so, Dreyfus observes, his Indian conversation partners contributed to the Dalai Lama's development of a form of Buddhist modernism that did not require him to renounce his traditional background.

Only by the end of the 1960s, when he was well into his thirties, the Dalai Lama began to be influenced directly by Western ideas. By then, his view had been largely formed through contact with Indian thinkers ([1], pp. 22–23; [35], p. 7). Their ideas, in turn, are the result of a complex interaction between traditional views and a variety of Western ideas transmitted through the filter of colonialism [62,63,77]. These encounters influenced the Dalai Lama greatly, and provided him with a template for his later engagement of modernity, writes Dreyfus. However:

It would be a mistake, however to overemphasize the role of Buddhist modernism within the Dalai Lama's overall intellectual trajectory. The Dalai Lama's encounter with modernity did not lead him to repudiate his traditional background. For example, the Dalai Lama never embraced the distrust of ritual, one of the hallmarks of Buddhist and Hindu modernisms. In many respects he remained a person deeply imbued with traditional Tibetan values and attitudes ([35], p. 8).

In the 1970s, Dreyfus observed first-hand how the Dalai Lama returned from a radical and reformist stance to a more traditional one. He attributes the observed changes to the Dalai Lama's experiences, visions and dreams during a certain Buddhist retreat. This retreat had him re-evaluate his relation to the fifth Dalai Lama (1617–1682), the institution of the Dalai Lama, and his tradition as a whole:

This return to a more conservative stance did not entail a repudiation of Buddhist modernism, which remained his favoured way of interacting with more strictly modern contexts, particularly with the West, which he started to visit seriously only at the end of the seventies when he was well over forty. During these later interactions, the Dalai Lama began to be interested in ecumenical exchanges and in environmentalism, concerns that were new to him at that time. These new interests brought very few changes to his overall orientation, which is expressed in the messages that he has delivered during his numerous tours ([35], p. 9).

Tibetologist Robert Thurman, then a twenty-three year old student of Buddhism, spent much time with the Dalai Lama around 1964. He reports:

First, His Holiness would listen to my recital of what I had been learning from my regular teachers. (...) Then I would address a few questions to him, especially on my favourite topic of that time, the Madhyamika philosophy of voidness and relativity. His Holiness would always have a few good points to make, counter-questions and observations, but

then he would refer me to my assigned teachers and embark on asking me questions about the many things he was keenly interested in. He would ask about Darwin and Freud, Einstein and Thomas Jefferson, life in the Americas and Europe ([31], p. 11).

In the early 1970s, Thurman too observed a marked change in the Dalai Lama's demeanor that is suggestive of the renewed interest in his own Tibetan tradition that Dreyfus noticed. "He had come alive philosophically", as Thurman puts it, "an astonishing change":

No longer did he refer questions to other teachers. He had many points to make about Tsong Khapa's treatise, considered his most difficult. He cited many passages by heart, he was lucid and lyrical in explaining the deep impact and extensive ramifications of the fine points, especially the critical differences between the dialecticist and dogmaticist approaches to the famous Madhymika central way ([31], pp. 12–13).

10. Basic Orientation

Other than the odd remark in his autobiographies *My Land and My People* (1962) and *Freedom in Exile* (1990), little detail is known about the formation of the Dalai Lama's thought on Science between his final monastic examination in 1959 and his first visit to the West in 1973 [24,26,78]. Historical records are scarce. The first years in exile were certainly very taxing, and the Dalai Lama must have had little time and leisure for a thorough study of Science. His limited command of English and the paucity of scientific reading at his disposal would have been restricting factors too. In those years, the Dalai Lama's efforts to broaden his knowledge most likely followed a pattern similar to that with Heinrich Harrer, famously recorded in *Seven Years in Tibet: Impromptu conversations with non-expert visitors on a wide array of topics* [54].

Upon his first visit to the West, in 1973, the Dalai Lama met the Austrian philosopher Karl Popper (d. 1994) in England. At the time, language limitations prohibited substantive talks. The Dalai Lama reports numerous conversations, both in public and in private, with eminent scientists and philosophers of science through the early 1980s ([1], pp. 33–36). Near the end of the 1970s, for the first time, he began a more methodical study of one subject: Physics. In 1979 the Dalai Lama became friends with the American quantum physicist David Bohm (d. 1992). Until Bohm's death they frequently conversed on physics ([1], pp. 29–31; [79], pp. 231–42).

On 30 August, 1983, the Dalai Lama visited the particle accelerator of the Conseil Européen pour la Recherche Nucléaire (CERN) near Geneva, Switzerland. A few months earlier, CERN's Carlo Rubbia and Simon van der Meer had detected the so-called W and Z bosons—a discovery that would win them the Nobel Prize in Physics in 1984 ([80], p. 180). After a tour of the facilities of the laboratory, including those where the discovery of the W and Z particles was made, a small group of theoretical physicists and the Tibetan delegation convened for an informal discussion. At the Dalai Lama's specific request, the gathering—that included the distinguished quantum theorist John Bell (d. 1990)—ventured on exploring the similarities and differences between the vacuum in physics and vacuity in Buddhism ([81], p. 170).

One of the Dalai Lama's later conversation partners in physics, from 1986 through the early 2000s, was the German theoretical physicist Carl Friedrich von Weizsäcker (d. 2007). Von Weizsäcker

studied with Niels Bohr and was employed as an assistant to Werner Heisenberg in the 1930s. The Dalai Lama befriended Von Weizsäcker during the “Time and Space” conference in Bavaria in 1986. On and off, they kept the conversation going for some twenty years, almost to Von Weizsäcker’s death [82,83]. In addition to lengthy informal discussions, Von Weizsäcker gave the Dalai Lama several formal, two-day tutorials on quantum physics and its philosophical implications.

Having absorbed the influence of Indian modernists around his thirties, the Dalai Lama’s basic orientation—intellectually, philosophically, normatively—has remained virtually unchanged since the early 1960s. For all his encounters with secular modernity, as a person the Dalai Lama remains imbued with orthodox values and attitudes. His religious orientation and personal practice have always remained traditional ([35], pp. 6–9). The insight of close observers like Dreyfus and Thurman warrants the assumption that the present Dalai Lama’s mentality and discourse stem largely from his monastic and religious training, modulated by the way he understands his responsibility as a Dalai Lama.

11. The Caveat

These findings are corroborated by the history of the Dalai Lama’s strongest proviso with regard to science. To determine the evidential value of science, explains his translator Thupten Jinpa, the Dalai Lama postulates a critical distinction between what is actually negated through the scientific method and what remains merely unobserved:

In other words, he reminds us not to conflate the two processes of *not finding* something and *finding its nonexistence*. For example, through current scientific analysis so far we may have not found evidence for rebirth, but this does not imply by any means that science has somehow *negated* the existence of rebirth ([67], p. 77).

In other words, “just because science hasn’t found something to be the case doesn’t mean science has disproven it; no proof is not evidence of disproof” ([61], p. 76). The Dalai Lama, says Jinpa, derived this caveat from a “crucial principle” that was first developed fully by Tsongkhapa in the 14th century ([67], p. 77). To put the caveat in context, Tsongkhapa’s words are given here in full:

A proper analysis of whether these phenomena—forms and such—exist, or are produced, in an objective sense is what we call “a line of reasoning that analyzes reality”, or “a line of reasoning that analyzes the final status of being”. Since we Madhyamikas do not assert the production of forms and such can withstand analysis by such reasoning, our position avoids the fallacy that there are truly existent things.

Question: If these things cannot withstand rational analysis, then how is it possible for something to exist when reason has refuted it?

Reply: You are mistakenly conflating the inability to withstand rational analysis with invalidation by reason. Many who have made this error claim that production and such exist even though rational analysis of reality refutes them. This is reckless chatter, so we do not agree.

To ask whether something can withstand rational analysis is to ask whether it is found by a line of reasoning that analyzes reality. Candrakirti’s Commentary on the “Four Hundred

Stanzas” says:

...because our analysis is intent upon seeking intrinsic nature.

So this is seeking to discover whether forms and so forth have an intrinsic nature that is produced, ceases, and so forth. Thus, the analysis searches to see whether forms and so forth have production and cessation that exist essentially; it is not that this line of reasoning searches for mere production and cessation. Therefore, this line of reasoning is said to “analyze reality” because it analyzes whether production, cessation and so forth are established in reality.

When such a line a reasoning analyzes or searches for production and so forth, it does not find a trace of them; they are “unable to withstand analysis”. However, the fact that this line of reasoning does not find them does not entail that it refutes them. Rather, reason refutes something that—if it did exist—would have to be established by reason, but which reason does not establish. Conventional consciousnesses establish the production and cessation of forms and such; although forms and such exist, reasoning consciousnesses do not establish them. Therefore, while reason does not find forms and such, how could it refute them? For example, a visual consciousness does not find sounds, but this does not refute them. This is similar ([84], p. 156).

Concisely put, the Dalai Lama delineates the scope of scientific knowledge by extracting a complex and contextual objection from its original religious setting, transposing it to the domain of science. Tsongkhapa makes the ostensibly simple but essential point that a negation carries no weight beyond its own scope: “All reasoning takes the measure of what it is capable of refuting. Thus, one need not worry that proving that a rabbit has no horns may lead one to think that a rabbit has no head” ([85], pp. 177–82).

12. Robust Presupposition

The earliest recorded mention of the Dalai Lama’s proviso predates his regular interactions with scientists by many years. His particular reading, in association with rebirth and modern research, already emerges in his first published work, *The Opening of the Wisdom-Eye*, a Tibetan monograph on Buddhism ([78], p. 28; [86], p. 27). Whereas most of the Dalai Lama’s subsequent publications have been edited transcripts of public lectures and interviews, *The Opening of the Wisdom-Eye* is a self-written summation of Buddhist doctrine ([86], p. 1). He finished its composition in 1963, just four years after rounding off his formal monastic education. The passage runs as follows:

It is not proper to think that there are no past and future lives just because one has not seen them. The non-perception of something does not prove its non-existence. This is well illustrated in the present time when, with the aid of modern instruments, many facts are known and many things seen which were unknown to our forefathers ([78], p. 28).

Or, in a later translation:

It is also mistaken to think that former and later lives do not exist because they are not directly perceived; one cannot posit something as non-existent simply because one has not

seen it. There are many internal and external phenomena newly seen or heard through modern technology that were not heard or seen by our ancestors ([86], p. 27).

The Dalai Lama never revised this reading. In 2005, he wrote:

Popper's falsifiability thesis resonates with a major methodological principle in my own Tibetan Buddhist philosophical tradition. We might call this the "principle of the scope of the negation". This principle states that there is a fundamental difference between that which is "not found" and that which is found "not to exist". If I look for something and fail to find it, this does not mean that the thing I am seeking does not exist. Not seeing a thing is not the same as seeing its non-existence. In order for there to be a coincidence between not seeing a thing and seeing its non-existence, the method of searching and the phenomenon being sought must be commensurate ([1], p. 35).

In its archetypal form, the basic elements of the caveat were already in place in 1963. Since it has been repeated on many occasions, the Dalai Lama must attach great significance to his formulation. Indeed, the caveat's very longevity—more than half a century—indicates that it ranks among his most robust presuppositions *vis-à-vis* science. This led the American philosopher and Mind and Life participant Owen Flanagan to give its meaning and epistemic status separate consideration ([75], pp. 63–105; [76], pp. 59–90). His critical reading suggests that the Dalai Lama's proviso—dubbed "The Caveat"—at least potentially undermines the dialogue between Buddhism and Science. Especially when it is seen to immunize ancient beliefs internal to Buddhism against scientific refutation by ruling out non-demonstrative proof:

The caveat permits a Buddhist or anyone else to believe pretty much whatever they want especially if the demand is that there is disproof, where disproof means something demonstrative. You, the reader, could believe right now that there are leprechauns hoisting these very letters on the page before you, but who move too fast to be caught in the act. You can't disprove it. If the caveat required concessions when there are good nondemonstrative (*i.e.*, inductive/abductive, statistical, and probabilistic) reasons to give up a belief, then many more concessions of cherished beliefs might be required. This point, of course, does not apply uniquely to Buddhism; it is a general consequence of taking the growth of knowledge seriously and of being epistemically responsible as knowledge changes ([76], p. 86).

Thupten Jinpa confirms that the Dalai Lama's proviso, along with a derived conception of Science that is limited in scope, may serve to shield traditional Buddhist views—such as those on the nature of consciousness—that come up against scientific assumptions. On Jinpa's view, the materialist assumption that ultimately consciousness is the brain, for instance, could be seen as "just one of those things that falls outside the domain of scientific inquiry. And then there's no contradiction" ([61], p. 111). Jinpa and Flanagan focus on the caveat's epistemological implications—delineating or circumscribing the probative value of Science respectively. Tsongkhapa's original formulation, however, together with the Dalai Lama's cautious, selective appropriation of scientific principles, suggest an alternative interpretation.

Traditionally, Tsongkhapa's caveat serves as a "soteriological safety valve". While a meditator analytically and experientially verifies the emptiness or lack of inherent existence of all phenomena, the false impression that phenomena do not exist at all might force itself upon him or her, leaving nihilism in its wake. To prevent this from happening—and thereby forestall nihilism's undesirable moral consequences—Tsongkhapa proactively impresses the meditator with the understanding that proper meditation on the emptiness of all things and events roots out fundamental ignorance, not the phenomena themselves. This is why he refers to other, less perceptive understandings as "reckless chatter".

Seen this way, the caveat's primary purpose is pedagogical or psychological, not epistemological or delimitative. Conceivably, the Dalai Lama's modern application derives from this original purpose as well. If scientific progress is to serve humanity's well-being, unwanted consequences must be duly noted and appraised before scientific findings are accepted—*especially* with regard to phenomena that at present appear to be scientifically intractable.

The doctrine of reincarnation, for instance, serves as a cornerstone for Tibetan Buddhist morality—if not in theory then in practice. The Dalai Lama, lacking ready-made alternatives, may be unwilling to give it up prematurely, before irrefutable scientific proof has been submitted, if only to prevent naive Buddhists from lapsing into moral nihilism. In this case, for him, soteriological expediency and moral responsibility may supersede "taking the growth of knowledge seriously" or "being epistemically responsible". Whether this is in fact the case remains to be seen, of course. Even so, together, these and other critical perspectives on the Dalai Lama's caveat, illustrate that any one putative hierarchy between Buddhists' epistemological, ontological, and moral commitments is not self-evident.

13. Fundamental Critique

Leaving aside the question whether the caveat itself and the Dalai Lama's transposition of it are warranted, it is instructive to note that the merit of Tsongkhapa's original observation was in fact contested within the Tibetan tradition in the Dalai Lama's time. Its rebuttal is a constituent part Gendun Chöpel's *Adornment for Nagarjuna's Thought*, a fundamental critique of Tsongkhapa's interpretation of Buddhist philosophy, which was originally published in Tibet in the early 1950s [85].

It so happens that monk-*cum*-explorer Gendun Chöpel also led the way in Tibetan monastics' engagement of science ([11], pp. 452–54; [30], pp. 105–52; [85], pp. 13–21; [87]). In *The Universe in a Single Atom* the Dalai Lama pays tribute to Chöpel, who during the 1940s had been quite alone in setting great store by the encounter with modern science and technology ([1], p. 2). In his day, Chöpel's iconoclastic temperament and notoriety shut the door to a substantive appraisal by his contemporaries of the open letter on Science he wrote to the "Buddhist thinkers of Tibet" ([30], pp. 105–31).

As a youth, Chöpel had the temerity to publicly dispute the philosophical view of Tsongkhapa, the founding father of his own Gelug sect. Adding insult to injury, not mincing the transgression of his monastic vow of celibacy, he later wrote the *Treatise on Passion*, an erotic manual based on his own experience ([85], p. 249; [88]). In the eyes of the all-powerful Gelug establishment, Chöpel's entire outlook amounted to sacrilege, and his admonition "that his discourse on Buddhism and Science not be rejected outright, but that it be seen instead as his contribution to the survival of Buddhism into the

modern age” was left unheeded ([85], p. 126). Chöpel’s open letter, published in India in the 1940s, came to the Dalai Lama’s attention just in the 1980s:

This letter, composed towards the end of his twelve-year trip, was amazing to me. It articulates many of the areas in which there could be a fruitful dialogue between Buddhism and modern science. I discovered that Gendün Chöpel’s observations often coincide remarkably with my own. It is a pity that this letter did not attract the attention it deserved, partly because it was never properly published in Tibet before I came into exile in 1959. But I find it heartwarming that my journey into the scientific world has a precedent within my own Tibetan tradition. All the more so since Gendün Chöpel came from my native province of Amdo. Encountering this letter so many years after it was written was an impressive moment ([1], p. 2).

Jinpa, who is the Dalai Lama’s principal translator during most every Mind and Life meeting, has recapitulated the tenor of Tibetan monastics’ response to Chöpel’s appeal to engage positively with modern science. To this end, Jinpa analysed Chöpel’s open letter—which he refers to as “the first soundings”—and marked the areas where Chöpel saw a convergence between Buddhism and modern science. Having noted that the Dalai Lama’s active involvement with science—“the second soundings”—arose independent from his forerunner’s writings, Jinpa determines that both thinkers cite science’s reliance on empirical evidence as proof for a methodological convergence with Tibetan Buddhist thought:

By drawing attention to this key convergence of methodology, the Dalai Lama has warned Tibetan thinkers of the need for openness, especially with regard to any possible challenges scientific discoveries may pose to established ideas within the classical Buddhist worldview ([67], p. 77).

One cannot help but wonder what Chöpel—who has been called Tibet’s first modernist and the most important Tibetan intellectual of the 20th century—and the young Dalai Lama might have discussed amongst themselves, if only they had met in person. After a long sojourn in British India, Afghanistan, Nepal and Sri Lanka in the 1930s and 1940s, Chöpel returned to Lhasa in 1946, hoping for a receptive audience. Before long, however, he was arrested for a putative misdemeanor and imprisoned at the foot of the young Dalai Lama’s Potala Palace. His writings were confiscated by the authorities and his oeuvre was effectively banned. *Adornment for Nagarjuna’s Thought* and Chöpel’s travel journal and historical essay *Grains of Gold* were published posthumously [89,90]. Chöpel passed away as a destitute alcoholic in 1951 soon after his release from prison. The Dalai Lama was sixteen at the time.

14. Not a Blank Slate

Evidently, when, on 23 October 1987, the Dalai Lama sat down for the first Mind and Life Dialogue in Dharamsala, his mind was not a blank slate. Although the precise extent and depth of his pre-existent knowledge of science are unclear, the preceding decades he had been primed with a rudimentary knowledge of Science through personal interactions with non-professionals, as well as expert scientists. After that first Dialogue the Dalai Lama continued to meet scientists outside the Mind

and Life format. In 1989, for instance, he met with renowned scientist and educator Carl Sagan (d. 1996). Sagan, whose 1985 Gifford Lectures had been titled *The Varieties of Scientific Experience: A Personal View of the Search for God*, held a filmed interview with the Dalai Lama at Cornell University. One of their exchanges throws additional light on the Dalai Lama's actual use of the caveat:

Carl Sagan: So let me ask now, if I may, some questions on religion. What happens if the doctrine of a religion, Buddhism let's say, is contradicted by some finding, some discovery in science, let's say, what does a believer in Buddhism do in that case?

Dalai Lama: For a Buddhist that is not a problem. The Buddha himself made clear that the important thing is your own investigation.

Carl Sagan: So, that is very much like science?

Dalai Lama: Yes, that's right. So I think that the basic Buddhist concept is that at the beginning it is worthwhile or better to remain sceptical. Then carry out experiments through external means as well as internal means. If through investigation things become clear and convincing, then it is time to accept or believe.

Carl Sagan: So, there is no possible finding of science in the future which would challenge Buddhism? There is no finding that would make you say: I'm not a Buddhist anymore?

Dalai Lama: I don't think so.

Carl Sagan: Because you adapt to future findings?

Dalai Lama: I think that a scientific finding through careful experiment Buddhists will have to accept at once. Some scientists say that they do not consider Buddhism to be a religion, but rather a science of mind. Sometimes they call Buddhism an inner science [91].

The caveat looms large here, but it remains implicit. The Dalai Lama answers, sensibly, that he cannot imagine future scientific findings that would stop him from being a Buddhist. As long as the caveat holds, however, modulating what constitutes a "careful" or "internal" experiment and "external" or "internal means", his answer remains non-committal by default. There was no follow up question, so the Dalai Lama did not elaborate. Looking back later, Carl Sagan's wife and co-author Ann Druyan was unequivocal. Commending the openness and lack of defensiveness of the Dalai Lama, she mentioned that Sagan felt elated at the Dalai Lama's response:

The Dalai Lama was asked by Carl what would happen if science was to disprove a major belief, a tenet of Buddhism. Carl was enormously impressed. I remember that evening when he came home he was really excited by the Dalai Lama's reaction, which was, if you heard it, "Well, of course, yes, we would give it up. We do not want to believe in things that are not true." Immediately. Carl was totally enchanted [92].

In 2004, *Nature* reported a similar exchange between the Dalai Lama and neurologist Fred Gage, who had participated in Mind and Life XII on "Neuroplasticity: The Neuronal Substrates of Learning and Transformation":

Gage says that what particularly impressed him was the Dalai Lama's empirical approach. "At one point I asked: 'What if neuroscience comes up with information that directly contradicts Buddhist philosophy?'" says Gage. "The answer was: 'Then we would have to change the philosophy to match the science'" [93].

Openness and defensiveness are not inversely proportional, of course. Sometimes, openness is the consummate evasion. One might say—somewhat harshly, perhaps—that Sagan, Druyan and Gage were overcome by wishful thinking, or rather, "auto suggestive over commitment": A spell of their own making kept them probing further, forfeiting a chance to seriously test one of the Dalai Lama's crucial presuppositions on science.

There has always been a certain discrepancy between the Dalai Lama's public image in the West, and his self-understanding as a spokesman for Tibetan Buddhism. The increasing public awareness of his interest in Science has reinforced this further. Some common misconceptions are going around. Popular impression notwithstanding, the Dalai Lama's close involvement with scientists since the 1970s does not make him fully conversant with each and every aspect of science.

A famous American talk show host learned this the hard way. On 26 June, 2000, the day the completion of the sequencing of the human genome was formally announced, the Dalai Lama appeared on *Larry King Live*. There, to his obvious consternation, he was asked for impromptu comments on a momentous scientific breakthrough he had never heard about ([1], p. 102; [94]). The Dalai Lama himself mentions one consequential lack of previous training he has never overcome: He never learned to process the mathematical foundations of Science. His knowledge and understanding of mathematics, statistics, and probabilistic knowledge, have always remained negligible ([1], p. 61).

15. Unwavering Allegiance

Evidently, both the Dalai Lama's overall religious and philosophical orientation and his general thought on the evidential value of Science had grown to full stature by the mid 1960s. Before that, the Dalai Lama spent his entire youth and formative years steeped in a highly demanding curriculum derived from that of the Gelug order. As an elder scholar he remains firmly committed to its fundamentals. Indeed, Dreyfus remarks that it is precisely the fact that the Dalai Lama is so well-grounded in his own tradition that allows him to embrace science with such eagerness and openness [95]. While considering how the Dalai Lama's engagement of new, scientific knowledge is supported by the effect of his monastic training, one must bear in mind that modern scholarship holds the Gelug curriculum to be an indigenous form of scholasticism [34,96–98].

Trent Pomplun sees the Dalai Lama as "a consummate missionary", facing the problems of any large-scale missionary endeavor: travel, livelihood, translation, adaptation, and so forth. Each missionary faces these problems, says Pomplun, and thanks to the Dalai Lama's omnipresence in Western media, nowadays most every viewer can watch on television how he attempts to solve them. What the television set does not show, however, is "the highly refined scholastic worldview that serves as the foundation of the Dalai Lama's mission" ([99], p. 2). Indeed, were one to capture the intellectual baseline of the Dalai Lama's thought in just three words, "highly accomplished scholastic" would surely rank among the best candidates.

Beyond the bare transfer of knowledge, Gelug scholasticism involves the gradual, subjective adoption of an all-embracing Tibetan Buddhist worldview. Initiating students into a highly particular, shared universe of meaning through its constitutive texts, Gelug colleges' curricula instill monastics with a strong, assured sense of identity and unwavering allegiance. For Gelugs, Tibetologist Jeffrey Hopkins explains,

(...) the main thrust of their education while at the monastic university is not toward confirmation in meditative experience of the vision of their founder but an attempt to render the content of his vision in a consistent verbal presentation; serious meditation, for the most part, comes later in solitary retreat. (...) The endeavor at the monastic university for those who enter the rigorous series of classes (and not all do, since many do not have the capacity or the endurance) is to rediscover (or create) the wholeness of Dzong-ka-ba's system of meaning without the slightest internal contradiction. This is done with the assumption that the founder's many works themselves are devoid of the slightest internal contradiction, that they fit together in all aspects in complete harmony ([100], p. 4).

Hopkins goes on to explain how, traditionally, this assumption is transmitted "through a teacher's remarking at some point fairly early in a student's training, 'It is amazing how there is not the slightest internal contradiction in all of the works of the Foremost Precious One (Dzong-ka-ba)!' and then, shortly thereafter, confronting the student with an apparent inconsistency as if the student were the origin of the original proposition that there was no inconsistency." The process of identification is forced, says he, "through the teacher's operating within a presumption of a shared perspective" ([100], p. 5). Thus, building a highly idiosyncratic self-understanding through veiled calls to orthodoxy, the mechanisms of cultural transmission impart in Gelug scholars an allegiance to their college's views that Hopkins compares to a warrior's oath of fealty to his chieftain in medieval England. He stresses, however, that:

The inculcation of a parochial bias is often consciously used to establish a mode of operation, much like a stage facade, that sets a scene in which other activities take place. It brings an energy to study and debate, a focus for students not yet moved in a universalistic way. The inculcated sense of the unique value of one's college and the awesome responsibility of being a member of this club charges a course of study during which profound understanding and spiritual progress that run counter to this parochialism can be made. Adherence to a college becomes, as a student matures, an operational mechanism that alternates—sometimes in self-consciously humorous contradiction—with penetrative insights into the weaknesses of a host of philosophical positions of the otherwise favored author ([100], pp. 11–12).

16. Disparate Belief Systems

Gelug scholasticism entails a supremely confident, embedded rationality, situated in a sophisticated intellectual culture that appears, at least to a casual observer in the West, to be at once thoroughly rational and distinctly preternatural. To the consternation of Western audiences the Dalai Lama, as might any other Tibetan Geshe, frequently argues over what he calls "uncommon" phenomena,

as if there were no distinction whatsoever to be made between the natural, supernatural and preternatural ([20], pp. 4–8). In that context, rather than decide that certain things fall outside the purview of rationality altogether, he confidently breaks into his usual conceptual repertoire and brings his critical acumen to bear on things and events that most practicing scientists routinely relegate to the realm of the metaphysical and speculative. A current topic of vigorous debate illustrates this tendency.

The Dalai Lama's doctrinal position on the wrathful spirit Dorje Shugden, at least on the face of it, may well solicit scepticism in scientists. In the late 1990s, a longstanding acrimonious and even violent dispute over Dorje Shugden, a wrathful Tibetan Buddhist deity, erupted and caught the limelight of Western media [10,14,48,101]. The Dalai Lama himself worshipped Shugden until the early 1970s. In 1996, the Dalai Lama spoke out against the worship of Dorje Shugden openly and forcefully. He did not question the existence of this fierce spirit *per se*, but discouraged its propitiation in the strongest terms. He even requested followers of Shugden—Tibetan and Western Buddhists alike—not to attend his formal religious teachings [102,103].

For decades, the Dalai Lama had restricted his cautionary remarks to Tibetan audiences. Most Western observers, therefore, were caught unaware by the confrontation with aspects of Tibetan Buddhism they were not able to place. They greeted the Dalai Lama's observations with puzzlement:

This reaction shows the degree to which the two aspects of the Dalai Lama's thinking had formerly been distinct, as the Dalai Lama has usually kept from his Western audiences those ideas and practices that he felt would not be understood. But this separation has not been rigidly maintained. When the Dalai Lama estimates that the stakes are too high or that the time is right for putting things more clearly, the separation breaks down, regardless of the audiences' discomfort. At this point the extent to which the Dalai Lama is not a Buddhist modernist becomes clear, and the audience often reacts with great discomfort ([19], p. 177).

Clearly discerning the Dalai Lama's two perspectives and modes of thought—one traditional, one modern—is vital to understanding the Dalai Lama's mental framework and rhetorical posture. They reveal, as Dreyfus puts it, the coexistence of two disparate belief systems in a single person. Both orientations are important to the Dalai Lama:

He sees no contradiction between the traditional and the modern, for the two orientations operate at different levels and are relevant to different contexts. The orientation that deals with the traditional goals of Buddhism is traditionally considered a higher level of practice reserved for elite practitioners, but it also resonates with modern expectations about religion. The other orientation is equally important, but is reserved for traditional contexts and relates to more immediate concerns. Thus it is that the Dalai Lama's addresses to Western audiences can reflect his perception of their needs, while his personal practice can be guided by other considerations. There is no inherent contradiction in this ([19], p. 177).

But, adds Dreyfus, the absence of inherent contradiction does not preclude the presence of tension. The Shugden affair serves as a case in point.

17. Scholastic Praxis

Dreyfus' and Pomplun's comments serve well to keep a nuanced and even perspective on the Dalai Lama's Buddhist persona within *Mind and Life*. The Dalai Lama's modernism is real, and runs deeper than a mere rhetoric to humor the West. At the same time, as the alumnus of the scholastic curriculum of the great Gelug monastic universities, the Dalai Lama has a pronounced traditionalist streak, which runs deeper than a mere display to humor his Tibetan followers. As a Buddhist scholar-practitioner he constantly negotiates the conflicting demands of tradition and modernity—only to maintain an unstable equilibrium. Sometimes the balance shifts, inadvertently perhaps, and a weighty personal judgment call spills over from the realm of private deliberation into the public sphere.

Dreyfus' insight helps raise important questions as well: Where do the Dalai Lama's two modes of thought intersect, and how? What upsets the balance—one way or the other? What fundamental critique could tip the scales towards modernity rather than tradition, or *vice versa*? And, finally, is it at all possible to test the Dalai Lama's negotiation of the conflicting demands of tradition and modernity objectively? Trent Pomplun suggests that it is, with the proviso that a Tibetan scholastic would expect one to master their extensive philosophical literature first ([99], p. 3).

Without switching jargon or epistemic resources, the Dalai Lama switches discourse between Buddhist philosophy or metaphysics and science with apparent ease. Rather than betraying a scholastic mentality *per se*, this ease is indicative of the extent to which the Dalai Lama feels intellectually grounded enough to expose himself to outside challenges to established ideas. Thanks to his innate curiosity and the exploratory nature of his personal pursuit of knowledge, the Dalai Lama's scholasticism rarely if ever lapses into facile dogmatism or other-worldly exclusivism. However, it is a serious mistake to take this openness for a lack of defensiveness.

To critique his reasoning as a Buddhist thinker, as Pomplun notes, one would have to venture out to meet the Dalai Lama on his own intellectual playing field, the debating grounds of Gelug scholasticism, and try the foundation of his arguments there. This demand assumes a sensitivity and receptiveness to the scholastic approach that for sheer lack of familiarity and appreciation do not come naturally to 21st century Western researchers and thinkers. A ready knowledge of scholasticism and scholastic apologetics has all but disappeared completely from public awareness in the West. Indeed, in popular speech the terms "scholastic" and "apologetic" have taken on a decidedly pejorative connotation [96,97,104]. More than a few Western intellectuals would have difficulty in recognizing and engaging the scholastic mind-set at all.

However, the Dalai Lama's scholastic, overtly apologetic praxis of reducing new readings to ancient doctrines does provide a window of opportunity. It can be methodologically harnessed to gauge the philosophical drift and religious strain his tradition sustains while adapting to the changing circumstances of its age. Within the *Mind and Life Dialogues*, when the Dalai Lama speaks of a neo-Buddhist perspective, a frame of reference that draws on Buddhism and Science alike, effectively he is testing the cogency of Buddhist doctrine through extra-traditional exegeses within the alien context of science. His tentative, apologetic adaptation of traditional doctrine projects, as it were, a new philosophical home for the underlying Buddhist views. The Dalai Lama's caveat with regard to Science, drawn from 17th century Tibetan philosophy, provides a case in point.

A simple thought experiment, imagining a Tibetan debate that never took place by the mere whim of fate, provides insight into the added value of this approach. The accidental concurrence between Chöpel's and the Dalai Lama's thought affords a close, comparative reading of two Tibetan scholastics' divergent interpretation of a singularly consequential doctrinal view: "The Caveat". This allows one to collate these two contrary views with the Dalai Lama's modern derivation of an ancient proviso that—supposedly, at least—demarcates scientific investigation. Thus contrasting the Dalai Lama's reading with Chöpel's critique, two divergent Tibetan Buddhist perspectives on the nature and scope of science are captured in one frame of reference. Conceivably, thereby an informed response can be given in reply to Jinpa's formulation of a critical issue:

In delineating the scope of current scientific knowledge, it is unclear whether the Dalai Lama believes that 1. phenomena that currently remain outside this knowledge such as rebirth do so by the very nature of their existence or 2. that, as the current scientific paradigm changes, the scope of scientific analysis will expand, thus enabling such phenomena to fall within the parameters of what we call scientific investigation ([67], p. 78).

For present purposes, it suffices to note that a focused examination of this imaginary debate not only offers the prospect of a deeper understanding of the Dalai Lama's stance towards Science. It also demonstrates the added value of a clear, fine-grained understanding of the Dalai Lama's mode of thought as a Tibetan scholastic.

At this point, it is important to reiterate that few scientists that participate in the Mind and Life Dialogues are conversant with the worldview and knowledge system that the Dalai Lama was brought up on. One might say that, because of this, they are hard pressed to ever hear the Dalai Lama's veiled call to orthodoxy the way a fellow Gelug scholastic in the room would. Indeed, like Sagan, Druyan, and Gage before them, the participating scientists may well misconstrue the self-understanding and masked ambiguity that scholastic rhetoric designates. Prudence dictates, therefore, that simple, spontaneous accounts of scientists' interaction with the Dalai Lama most likely are one-dimensional and incomplete—even if these accounts are their own.

18. The Overall Project

A sober-minded scientific commentator shall likely surmise that the Mind and Life Institute's mission plots a course across numerous obstacles that is impossibly hard to navigate. Francisco Varela felt that Buddhist thought and practice could impact upon science in a transparent, tractable manner. However, how, amidst such complexity, could the impartial onlooker keep track of the Dialogues' intellectual, philosophical and normative dynamic? How does one allocate the burden of proof? What stipulations would have to be satisfied to determine objectively if the Dialogues accomplish—or even approach—the Institute's aspirations?

The Dialogues' format and objectives confront all those involved—participating scientists and scholars, translators and auditors—with formidable intellectual and philosophical challenges. As we have seen, the Dalai Lama does not speak for Buddhism *per se*: the unmistakable heterogeneity of Buddhist thought and practice defies any individual's attempt to speak as if the Buddhist tradition were a monolithic entity that he or she can call his own. The same goes for the scientists:

none of the participants are in a position to unequivocally arbitrate contentious issues. These difficulties are compounded by the ambiguities and complexities that beset the involved disciplines and fields themselves.

All of this warrants the assumption that the Dalai Lama's and scientists' contribution to the Dialogues frequently requires immediate contextualization, lest uninformed participants misapprehend the thrust of a particular argument or its support amongst the speaker's peers. This task falls to the Dialogues' regular translators and a small entourage of Buddhist scholars, Tibetologists, Buddhologists, and Western philosophers. While the Dalai Lama and participating scientists primarily speak for themselves it is their task to primarily speak for others. Their translation and explanation—impromptu expositions in Tibetan or English mostly—should convey enough context to suggest to all of those present a plausible interpretation of the scanty information at hand. Uninformed scientists, for their part, now and again must digest crash-courses in “Buddhist Hybrid” or “Buddhologica” English, and learn to appreciate the meaning and nuances of words like “emptiness”, “Mind-Only”, and “self-cognizing consciousness” [105].

To facilitate the Dalai Lama's active involvement in the meetings, the acting translators and scholars must be able to simultaneously cover divergent subfields of Tibetan and Buddhist Studies. Although over time a modest catalogue of Tibetan and English idiom has been built, the Mind and Life Dialogues' jargon is still very much under construction ([6], pp. 33–35, 246; [7]). Indeed, the spontaneous, unconstrained course of most discussions frequently compels translators to invent Tibetan terminology *ad lib* and second-guess their critical apparatus. In effect, they engage in “real-time hermeneutics”, interfacing vast differences in content, method, scope and style as a matter of course.

This state of affairs has its merits: Contextualizing how these challenges are met in practice, factoring in the apparent philosophical choices, may give a disinterested onlooker enough leeway to retrieve and engage some of the key participants' views and motives. The archived Mind and Life Dialogues in particular, presenting unabridged footage of the Dalai Lama's interactions with scientists *in concreto*, afford a rare opportunity to witness Buddhism in the making. Presumably, thanks to the Dialogues' format and the transparency of the Dalai Lama's scholastic mentality, the way in which the various challenges are met offers enough traction to retrieve and critically appraise real-time patterns of engagement and innovation. This then should prove to be instrumental in determining the Dialogues' measure of success, at least by its own standards.

19. Buddhist Hermeneutics

To offer a clearer view of the methodological window of opportunity afforded by the Mind and Life Dialogues, a brief detour through Buddhist hermeneutics is in order. Thupten Jinpa, who has been the Dalai Lama's English translator for more than twenty years, has explored Tsongkhapa's contributions to the development of Buddhist philosophy at length. Jinpa submits that a vital part of his own approach in reconstructing key philosophical ideas from Tsongkhapa's writings, in addition to an appreciation of the historical contexts, is to be sensitive to the author's topical interests: “In other words, in attempting to understand the meaning of a text, the reader must bring to bear upon this task

the overall project of the author. This is especially important when reading an author who is writing within a continuing lineage of thought” ([98], p. 15).

As a hermeneutical strategy, this amounts to a careful listening—to be able to “hear” what remains unsaid. Jinpa refers to his approach as a native’s point of view:

This means to read Tsongkhapa, as it were, from within his own writings and inherited philosophical and intellectual legacies. This approach results in a more sympathetic reading of the material at hand than generally employed by traditional Western academic scholars. Furthermore, contrary to what many textual theorists of the post-modern age recommend, I have accorded greater priority to the place of the author when determining the meaning of his works. For example, I have given priority to Tsongkhapa’s own intended meaning and stated motivations that underlie his philosophical enterprise. I have ‘listened’ to him when he says that he is arguing for a specific thesis” ([98], p. 3).

First, says Jinpa, one needs to discern what the author himself feels to be of greatest concern, and, second, one needs to appreciate the inherited intellectual and philosophical legacies of the tradition within which the author is writing ([98], pp. 2, 16). This stance, Jinpa points out, was in fact commended by Tsongkhapa himself:

Each Mahayana scripture—from summaries to the most extensive texts—gives a great many teachings on the profound meaning, but also leaves many things out. So you must draw points that are not taught in certain texts from other texts that do teach them, and you must draw points that are not taught extensively in certain texts from other texts where they are taught extensively. You should understand that this is true for the category of the vast bodhisattva deeds as well. A partial path, in which either the profound or the vast is missing, cannot be considered complete. This is why it is often said that you must be skilled in all vehicles in order to be a guru who is fully qualified to teach the path ([84], pp. 349–50).

Tsongkhapa’s exhortation could be taken in two ways: by being sensitive to the context and overall lineage of thought of a given text, a skilled reader will “draw” points that remain unexplained from other texts, whereas a skilled writer, by the same token, will “catch” points that he knows to have been taught elsewhere. Patterns of self-referentiality—the unsaid derives its meaning from being left unsaid—provide access to the unsaid. They open up new horizons of meaning on the understanding that the author’s omission is intentional ([106], p. 55). By having the “absent” serve as a placeholder for content “present” elsewhere, the researcher imposes a continuity of thought and establishes a hermeneutics of appropriation and control that helps reconstitute the content’s true, determinate meaning ([106], p. 66). Here, the Dalai Lama’s tacit application of the caveat in conversation with Carl Sagan provides a pertinent example.

20. Web of Belief

It stands to reason that a similar hermeneutical strategy shall prove useful in monitoring the Mind and Life Dialogues. Given the availability of footage of actual interactions, this strategy may be enhanced by an approach that derives from current discourse on the philosophy of mind. In *The*

Problem of the Soul Owen Flanagan argues that discussants in meetings that involve distinct explanations of consciousness, as a rule, partake of some dominant conception of the nature of the mind, the person and the good life—even if they are unaware of it ([107], pp. 32–36).

Whatever its origin, any such conception, together with its ontological, epistemological and ethical corollaries, is thought to be deeply entrenched, inchoate though it may be. It sets the standard for the self-image of its adherents, directly affecting their personal sense of identity, purpose and meaning—our ideas about the nature of mind define who we think we are. This, of course, raises the stakes for free-ranging, in-depth discussions that might prove central components of those views to be false. To many involved, including a widening audiences outside academia, current debates in consciousness studies can therefore be very disquieting, and make deep inroads into their inmost being ([107], pp. 27–36).

Amongst the participants in the Mind and Life Dialogues divergent views on consciousness, along with their operative supporting beliefs, abound. Discussants may venture into hitherto unseen philosophical corners any time, only to see their received wisdom critically tested. In effect, the theoretical perspective laid out by Flanagan predicts that in sustained, cross-cultural interactions such as the Mind and Life Dialogues genuine, disquieting and *informative* conflicts of interest shall arise—in the minds of the Dalai Lama and individual scientists, as well as between them and individual members of their entourage.

Occasionally, existentially relevant beliefs are challenged by a potentially disruptive hypothesis or contrary observation. At such a moment its proponent shall inadvertently, out of a certain visceral retentiveness, draw on the deeply held “conceptual-conative scheme” that frames and supports the received wisdom of his or her community or tradition. A conceptual-conative scheme, Flanagan explains, is the set of regulative ideas and ideals that a given group and its members subscribe to.

Not normally fully articulated in the minds of those who abide by it, different features of the implied self-image are invested with varying degrees of allegiance, allowing for divergent reactions to outside pressure. Ever disquieting and destabilizing, some challenges may in fact impugn the self-image of an entire people or an age. In Flanagan’s words:

What I am calling a conceptual-conative scheme, Willard Van Orman Quine calls the “web of belief”, and he compares it to a spider web. When the web’s periphery is damaged, repair is simple. When the center is damaged, you hit me, the spider, where I live, and I may have to rebuild from scratch. I may need to build a new web elsewhere. Some kinds of damage to an existing conceptual-conative scheme may be easily fixed, other kinds of damage, depending on how close to the center they hit, are more costly ([107], p. 35).

At such a moment—“under siege”, as it were—the speaker shall unthinkingly draw on more fundamental beliefs in his or her conceptual repertoire. Ranging from folk philosophy to elaborate philosophical tenets, these are the ideas that anchor the operative ideals and principles that govern his or her thought. A perceived threat can trigger a certain “philosophical inertia” that reverberates in the discussants’ intellectual postures and rhetorical reach, and in the philosophical agenda they set for themselves. Retrospectively correlating diverse accounts of the nature of conscious experience, for instance, with the mode of reasoning they elicit under existential duress may help explicate the rationale behind those beliefs and the vested philosophico-religious interests of their adherents.

Clearly, such a contextualizing approach does not stop with explaining what those beliefs and motives are. It shifts the attention to what they *do*, thereby making manifest their proponents' overall project and intellectual, philosophical, and moral commitments.

21. Confounding Factors

The apparent contradiction between the Dalai Lama's modernist and traditionalist orientations potentially presents a confounding factor in any such analysis of his overtures to Science. Within the charged atmosphere of religion and science a perceived disparity between image and reality likely raises questions such as: Who is the real Dalai Lama—the modernist or the traditionalist? Who is he speaking for? Whence does the Dalai Lama's interest in science derive? Is the rapprochement between him and scientists a genuine attempt at reformation on his part? A noncommittal personal pastime? Or, rather, a masked form of *realpolitik* against yet another hegemony he sees Tibetan religion and culture confronted with? Does the Dalai Lama abide by the intersubjectively available epistemic norms of Science? Or is, on his view, the scientific approach in certain cases subordinate to epistemologies opaque to all but fully enlightened Buddha's?

By bringing ulterior motives—ulterior to the joint establishment of scientific fact—and the true intent of such a key figure into consideration, these and similar questions may well interfere with a detached, objective examination of the Mind and Life Dialogues. Questions that spring from seeming inconsistencies in the Dalai Lama's orientations complicate analyses of the Dialogues in different ways. If the Dalai Lama's doctrinal views are seen to be debatable, Mind and Life is concurrently seen to be a locus of contestation. Thereby thorny issues of intellectual integrity and epistemic accountability come into play that need to be considered. Are scientists and the Dalai Lama bound by the same epistemic rules? Or, for that matter, why should they be? Again: where and on whom falls the onus of (scientific) proof?

In recent years, much scholarly effort has been spent to explain just why the obstacles to constructive exchanges between the religious and scientists are notoriously hard to negotiate, both in theory and in practice [75,76,108,109]. For instance: A perceived tension between the Dalai Lama's traditionalist and modernist streaks and stances readily slides into facile East-West comparisons. Any such approach, would make one vulnerable to prejudging or even disowning the originality of the Dalai Lama's thought, and thereby confound the analysis of already marginally tractable interactions.

Oftentimes, discussions on Religion and Science concern intracultural interactions such as the current discourse of "Intelligent Design vs. Science." In this particular case, the knottiness of the exchange is compounded further by the intercultural or transcultural nature of the meetings. Mind and Life being a live, topical interface between Tibetan Buddhism and the sciences, the least one can say is that a presumption of shared assumptions is less warranted in dialogues between the Dalai Lama and (mostly) Western scientists, than between, say, Richard Dawkins and Alister McGrath [110]. It could seem as if East-West comparison is all there is to the analysis.

The conceptual distinction between the natural, super and preternatural, for instance, having emerged from the predominant scientific ideology, may be a historical fact for Western cultures. It is not self-evident, however, that this particular conceptualization ought to become a feature of Tibetan Buddhist history as well. As Martin Mills explains in his essay *This Turbulent Priest: Contesting*

Religious Rights and the State in the Tibetan Shugden Controversy, the history of Tibet reveals a hierarchy between the religious and the worldly, with the former acting as a model of the latter. With that hierarchy came notions of loyalty and tutelage and a highly idiosyncratic conception of religious governance: “the religious and worldly combined” (Tib. *chos-srid-gnyis-ldan*) ([111], p. 62). Western discourse on human rights is predicated upon radically different models of state formation, with radically different notions of accountability—different, *maybe* better, but this will have to be argued.

Likewise, in Tibetan eyes the seemingly straightforward conceptual separation of the natural, supernatural and preternatural may be unwarranted because it prejudices the validity of the distinction between “internal” and “external means”, “common” and “uncommon” phenomena and the hierarchy of “conventional” and “pure ‘sight’ that structures Tibetan Buddhists” way of knowing truth:

“There can be two visions of the same thing”, the Dalai Lama said, “one of people who have a pure sight developed through spiritual practice and one that is purely conventional. In these special cases—and these events are rare, but important—both are true, both are reality. So there are two viewpoints, one common and one uncommon. The uncommon is viewpoint is not considered history, because historians cannot record these things. But we cannot say that all such things are just the imagination of the Buddhist faithful. They can also be true” ([20], p. 5).

In addition, no one should be confused into thinking that *intracultural*, *intratraditional*, *intrapersonal*—East-East, West-West—disputes are less likely to occur just because of the mixed cultural make-up of Mind and Life meetings. Indeed, paradoxically, parochial and intratraditional contestations seem more likely because of the free-ranging, uninhibited flow of the discussions, and the fact that, within Mind and Life, the Dalai Lama is very much alone at the microphone as a spokesman for Tibetan Buddhism [112,113].

22. The Ordinary, Reasonable Scientist

And then there is the Dalai Lama’s status and prestige as an incarnate *lama* to consider. The lineage of the Dalai Lamas is thought to consist of successive reincarnations or *tulkus* of the *bodhisattva* Avalokitesvara, patron of Tibet. Indeed, the Dalai Lamas are understood to be emanations of Buddhahood itself. On this view, any Dalai Lama’s mind is endowed with every corresponding quality of the enlightened state. This explains why Tibetan Buddhists everywhere almost universally hold the current Dalai Lama in the highest esteem. In fact, his ascendancy is such that millions of people—including a significant portion of the Mind and Life in-group—consider him to be both omniscient and infallible. As the present incumbent, then, the Dalai Lama’s thoughts, words and actions within Mind and Life carry a rather unusual charismatic authority.

Such authority is difficult to assess objectively without prejudging the Dalai Lama’s distinctive character as a religious virtuoso. After all, he is assumed to have achieved the pinnacle of Buddhist practice, enlightenment, and thereby acquired all the attendant, inconceivable mental faculties—if ever a mind was hard to read. Taking this into consideration would lead to questions such as: What discernable mental faculties might set the Dalai Lama apart from the participant scientists, and what

authority might derive from those faculties? If indeed an epistemological revolution is to take place within modern physics, as Varela surmised, what original contribution might be expected from him?

Given the Mind and Life Institute's self-imposed commitment to intellectual rigor and scientific excellence, a deliberate taking into account of the Dialogues' normative dynamic and the Dalai Lama's self-understanding and framing of Buddhism is warranted. There is the danger, though, that such a critical perspective collapses into bias by setting up standards of scientific accountability that the Dalai Lama—being a non-scientist—could never meet. Such a perspective would constitute scientific imperialism. It may be consistent, yet unjust. The burden of proof may be unreasonably high.

This particular risk is not without precedent though, nor is without a solution. In legal matters, personal accountability is judged on a day-to-day basis by a coherent set of standards that is well-nigh impossible to meet by any one individual. This is done by taking recourse to the objectifying legal fiction of "a reasonable person". Within the context of law, the fiction of a reasonable person presents the objective standard against which individuals' actual conduct is measured. Whether such a person actually exists does not even enter into the discussion.

An ideal image approach would view the Dalai Lama as a fully rational, epistemically transparent being, whose thinking exhibits the same measure of logical consistency as that of the average, reasonable scientist. Such a stance allows one to ask questions like: Does the Dalai Lama argue the way a reasonable scientist would? How does it differ? Who has the burden of proof? Is the Dalai Lama's contribution judged by the standards that a reasonable scientist would apply to other scientists? How does it differ? Deviations thereof would still not necessarily merit a judgment of being "unscientific", of course. As in Law, the concerned fiction first and foremost serves to mark off behavior that is out of the ordinary and requires further explanation. Upon closer examination its rationale may make perfect sense, scientifically speaking. Indeed, it might even point out scientific oversight, and its application may be added to the reasonable scientist's virtual toolkit.

A fuller expression of the Dalai Lama's way of thinking by contrast with that of a reasonable scientist, then, could help disperse some of the obscurity that surrounds the most prominent exponent of the discourse of Buddhism and Science in our time. Taking the Dalai Lama as a reasonable scientist stands one in good stead when analysing the intellectual, philosophical and normative dynamic of his interaction with scientists. It allows one to give weight to some of the positions he takes up outside the Dialogues as well.

23. Conclusions

To sum up: There is more to the picture than meets the eye. The Dalai Lama's stance vis-à-vis Science derives from a worldview that remains hidden, at least partially, for most observers. As a result, the complex and composite nature of the Dalai Lama's actual views and motives is often obscured. *Caveat Emptor*, let the buyer beware: without a proper understanding of the characteristics and overall trajectory of the Dalai Lama's thought, in particular throughout his step-by-step encounter with modernity and Science, it is difficult to grasp and appreciate his substantive contribution to the intellectual, philosophical and normative dynamics of the Mind and Life dialogues.

The Mind and Life Dialogues can be monitored for the underlying conceptual-conative schemes that anchor the operative beliefs and guiding principles that govern the discussions. This involves

casting a wide net, to include not only topical exchanges per se but incidental discussions, phraseology, caveats, confusions, surprises and the like as well. Adopting the “web of belief” approach as a methodological posture, retrieving and engaging the varied positions, projections and responses that have framed and driven Mind and Life meetings, the contours of the self-understandings that they imply can be outlined.

Historians and philosophers of science, philosophers of religion, Buddhologists, Tibetologists and others might profit from probing the real-time interactions that the Mind and Life Dialogues’ video-archives hold. Complementing historical, text-critical and Buddhological research, through this approach, actual patterns of appropriation, dissemination and evasion can be retrieved and appraised.

Paying careful attention to the participants’ overall project, viewing the Dalai Lama as one would a reasonable scientist, major *loci* of inter- and intratraditional contention between Buddhist and scientific perspectives can be demarcated and tracked. Moreover, this helps ensure that the onus of proof is allocated equitably, so that most every pertinent argument can be sighted and weighed. Such an approach unlocks the possibility of testing other researchers’ findings in the history of the discourse of Buddhism and Science as well. Does the Dalai Lama’s “Caveat” and intimation of a “neo-Buddhist perspective”, fit known traditional patterns? Contrasting the observed intellectual, philosophical and normative dynamic with other scholars’ recent findings in the field of Buddhism and Science serves to evaluate the plausibility of answering this question objectively.

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Conflicts of Interest

The author declares no conflict of interest.

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