MEDITATION, SELF-CORRECTION AND LEARNING:
Contemplative Science in Global Perspective

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I. APPROACH

Thank you all for this rare opportunity to share some thoughts on meditation, a protean process that over the years has made its way into the heart of my work and life. I begin with what I see as the key question facing my panel, "Is meditation a valid way for the mind to engage reality?" Of course, any answer to this presupposes answers to simpler questions like, "What is meditation?" "How does it work?" etc. So I will also need to address these in the course of my remarks.

Given our limited time together, we have all had to decide whether to dissect a narrow topic or to sketch a broad overview of our field. For better or for worse, I have chosen the broad strokes approach. As someone who lives at the interface of several disciplines—psychotherapy, meditation research and Buddhist scholarship—I must beg your indulgence as I gather my thoughts in my own peculiar way: by asking the same question from the standpoint of different disciplines and cultures. The risks of this approach are obvious. With limited time and nearly unlimited scope, I must reduce my comments to a scattered array of points, leaving out most of the reasoning, evidence and connecting links that lend coherence to any discussion. My hope is that given the vast mind-power of my audience, each of you will enjoy the mental stretch of assembling the puzzle-pieces and letting us all know how it hangs together from your point of view. Given the interdisciplinary nature of this conference, I start by framing my comments within the big picture of world history.

II. HISTORY, LOCAL AND GLOBAL

From this vantage, the first thing that stands out about our question is that it is distinctively modern and Western. When Descartes expressed the doubt Westerners since the Renaissance and Enlightenment eras have felt regarding knowledge received *via* Catholic tradition, meditation was not in doubt but was rather assumed as a method by which the human mind could know reality.

By the time his analytic style of inquiry took hold in Protestant Britain, the contemplative discipline of meditation seems to have gone the way of Catholic tradition and the monastic academy of the medieval West. With its old terrain divided by Kant and his heirs amongst new disciplines like empirical science, analytic philosophy, aesthetics and ethics, meditation was expelled from the modern academy as a core discipline and relegated to the seminary instead.

The historical rationale behind this expulsion, as articulated by Gibbon, was the rebirth of Greek rationality after the Dark Age ushered in by Catholic decadence Yet a close study of Western history confounds Gibbon's narrative. True, the Aristotelian version of Greek culture revived by the modern West had been all but lost in the West, until it was resurrected by Islamic philosophers and taken up by the Scholastic forbears of Descartes. But the Augustinian mainstream of Catholic tradition was equally rooted in Greek culture, albeit in a rival, Neoplatonic version that had gradually displaced Aristotle's.

Rather than a wholesale rebirth, then, the European Renaissance was a partial one. No less a historian than Toynbee saw it as a schismatic move to cut out the middle men

who linked the Far West to civilization. As an end run, the key to its strategic success was the choice of an extroverted version of Greek culture friendly to the colonizing ambitions of the Far West. Gibbon's own personal narrative personified this end run. Forced by his Oxford dons to reject a wish to become a Catholic monk, he recanted by dismissing in his *Decline and Fall* the contemplative spirit of Catholic tradition as "effeminate" and "decadent," while vaunting the military-industrial spirit of the emerging Protestant West as "rational" and "masculine," i.e. authentically Greek and Christian..

As a random measure of the violence done by this crusading take on Greek science and religion, contrast Francis Bacon's rallying cry for science "We must torture nature's secrets out of her," with the Socratic injunction, "Know thyself." Or, compare the motto at the entry to the London School of Economics, "Knowledge is power," with the Johannine Gospel's "The truth shall set you free."

What does this recent history have to do with the true role of meditation in local and global culture? I think the easiest way to address this is to switch perspectives to comparative religion and philosophy.

III. **MEDITATION, SCIENCE AND RELIGION, EAST AND WEST**

In his classic, *Presuppositions of Indian Philosophy*, Carl Potter observed that knowledge in the Indian tradition is measured against a standard we in the modern West have learned to think of as religious. That gold standard is *mok□a*: personal liberation or freedom. In the same seminal work, Potter describes the role of Indian yoga and meditation as providing the method by which each individual can commit or literally

yoke his or her mind and body to a vision of reality in order to test the truth of that vision in the first-person laboratory of his or her life and death.

In the Buddhist tradition, these premises are clear in the Four Noble Truths, the basic framework of all Buddhist learning and practice, spiritual or scientific. While the first two truths trace human suffering to delusion, the second two describe Śakyamūni's experience of freedom and spell out the path of reeducation (*adhiśi□ya*) that leads to it. The interdisciplinary nature and contemplative spirit of the Buddhist academy derives from the way the path to freedom pioneered by Buddha requires the synergistic effect of three core disciplines, wisdom (*prajñā*), ethics (*śīla*) and meditation (*samādhi*).

While the discipline of wisdom includes science (*vidyā*) and philosophy (*yukti*), it aims at a direct personal experience of reality that requires meditation and ethics and yields personal freedom and shared happiness. Understanding this ambitious standard of knowledge and the way in which it is practically pursued can help expose and correct the modern Western cultural beliefs that prevent us from recognizing meditation as a valid method of engaging reality.

The trouble we have in understanding this stems from the peculiar way the rift between modern and medieval Western traditions involved the construction of science and religion as mutually exclusive categories signifying divergent pathways of civilization.

The Greeks applied two main approaches to philosophy, spirituality and science, the Pythagorean-Aristotelian approach based on math and physics and the Empedoclean-Platonic approach based on language and contemplation. The Catholic Church controlled both, but actively adopted the Neoplatonic, so when Aristotelian Greek culture was

revived to help free science and scientific philosophy from Church control, Western scientists preferred math and physics and suspected linguistics and meditation as methods.

Among the many current contributions of Buddhist culture, perhaps the most crucial is the way it throws a wrench into the modern dualistic split between Western science and religion. Like our modern Western tradition, the Buddhist tradition preferred reason and evidence over authority and scriptural reference. Yet rather than reject the latter entirely, it restricted their scope to hypothetical (*atyantaparok□a*) matters beyond ordinary inference (*anumāna*) and perception (*pratyak□a*). Like our modern tradition, the Buddhist tradition transgressed the arbitrary limits placed on human potential by authoritarian religions. Our modern tradition rejects religious ideals of omniscience or omnipotence as incoherent, yet distributes them across human communities over time, effectively conceding that individual humans are incapable of objective knowledge and action. Buddhist traditions likewise reject orthodox ideals of absolute omniscience or omnipotence, but revise them into humanistic ideals of relative omniscience and omni-compassionate social action.

In other words, instead of insuring objectivity by perfecting disembodied, impersonal knowledge and technology, the Buddhist tradition sees no surer way to human objectivity than to perfect *humanity itself*. This aim is seen as rational and practical because perfect knowledge and action are understood as knowledge and action that free human individuals and communities from self-limiting habits and the suffering they cause. No regressive appeal to authority or revelation, the traditional insistence on

Buddha as a historical paradigm of the human genius (*buddhi*) for perfectly embodied objectivity and social agency stems from this choice of cultural aims.

Beyond relativizing ideals of perfected knowledge and action, meditation (*bhavana*) plays the pivotal role of making Śakyamūni's results reproducible. The increased control over mind, emotion and motivation it permits removes natural or acquired obstacles (*avara□a*) limiting the average human's potential for objective knowledge and compassionate social action.

For various reasons, meditative self-correction was more readily accepted as a standard method by the main traditions of Indic philosophy, science and religion, and remained the chosen paradigm of self-correction and technical control over nature well into the modern era. First, like the linguistics of Pani□i, the self-regulation techniques standardized in Patañjali's yoga and Buddhist meditation were far more rigorous and systematic than their analogues in the West. Second, with the greater stability and tolerance of Indian civilization, Indian linguistics and meditation were not restricted to religious elites, but rationalized and universalized by Buddhists and Vedists into critical contemplative disciplines that supported the rise of non-violent scientific and religious traditions and an alternative path of sustainable progress for civilization in Asia.

Although an objectivist paradigm based on formal logic and physics and a constructivist paradigm based on logic and psychology were developed by Buddhist and Vedist Realists (*Sarvāstivadins*/*Nayayikas*), they never displaced the Indian contemplative paradigm but were subordinated as heuristic aids for the elementary study of mind and nature. The reasoning behind this is instructive in that it reverses our modern

prejudice that language and meditation are means of cultural indoctrination while math and physics are methods of culture-free objectivity. .

From the eighth century on, de-objectifying intuition (*analambanajñāna*) guided by language therapy (*vaccikitsa*) was seen in the Mahāyana Buddhist academy as a purely critical method of self-correction (*buddhiśodhana*) while formal logic combined with objectivist physical science (*bayhavidyā*) or constructivist psychosocial science (*adhyātmavidyā*) were subordinated because they reinforced foundationalist and essentialist habits and the reifying mindset behind them.

This strategic preference reflects the distinctive nature of Buddhist meditation as a self-corrective method and the distinctive aims of Buddhist science and civilization to foster objective social knowledge and action by perfecting embodied objectivity rather than disembodied forms of objective knowledge and technical mastery.

Consequently, when the time came for a Renaissance of classical Indian science and civilization, satellites like Tibet had no need to abandon the contemplative paradigm of Indian philosophy, science and religion in order to modernize. The Gulukpa renaissance is based on Tsong Khapa's (1357-1419) elegant exoteric synthesis of critical (*prasa□gika*) and practical (*svatantrika*) Centrist methods (*Madhyamaka*), as well as the esoteric *Kalacakra* sythesis in which all positive sciences, physical and psychosocial, are integrated yet subordinated to a pure science (*ak□aravidyā*).of contemplative self-correction.

The Indo-Tibetan tradition offers an especially current and vital alternative to Western science and civilization, what I call following Thurman a contemplative modernity, in which philosophy, science and spirituality are all in service to the pressing

human aim of cultivating human freedom of mind together with responsible social agency.

Yet however distinctive in degree, this Indic tradition is not exclusive in kind. Unlike the Far West, the mainstream of Abrahamic civilization remained committed to the tolerant, contemplative version of Greek culture championed by Ibn Sina (Avicenna), rather than the exclusivist, expansionist version championed by Ibn Rushd (Averroes). This schism is reflected in the post-modern clash between Western secular culture and Islamic traditional culture.

In sum, comparative study suggests that the Far West's rejection of meditation was less a return to the one true classical culture of Greece or its Asian counterparts than a schismatic reading of civilization not shared by any of the ancient centers or their nearest satellites. The triumphalist view of this schism is that the extroverted, masculine culture of the modern West is the one true culture chosen to save the planet from religious delusion and poverty. Comparative study suggests that the Far West, historically among the newest and poorest satellites in Eurasia, chose a version of science and civilization meant to enhance military-industrial wealth and power through physical science and technology, while the older, richer societies to the South and East stayed committed to contemplative versions meant to enhance political tolerance and mercantile wealth through psychosocial science and technology aimed at spreading self-knowledge, self-control and collaborative arts.

Given the planet's current need for both material and human advancement, a global synthesis of the Western physical and Asian contemplative sciences and technologies seems in order. Since the thrust of my work is directed towards that end, I

will now turn to address the question of meditation as method from the viewpoints of Western brain science and Tibetan mind science.

IV. MEDIATION, LEARNING AND THE BRAIN

I begin by citing two little known studies that will help me sketch a Western scientific model of meditative methods. The first is a split-brain study that offers a neural model of dissociation, and helps us toward an evolutionary paradigm of self-deception.

Recently, brain researchers have studied a group of people whose left and right cerebral hemispheres have been surgically severed to contain epilepsy. In these individuals, the right hand literally doesn't know what the left hand is doing. In one study described by Gazzaniga, the surgical split was extended by placing a blinder between the eyes to divide the left and right visual fields. Visual cues were given to the eye that served the non-verbal right brain directing that brain to move the hand under its control. The researcher then addressed the subject's verbal left brain, asking why the subject moved his hand. Surgically out of the loop, the verbal brain nevertheless fabricated a rationalization, took credit for initiating the action and went so far as to defend its patent fiction when questioned.

Such findings have helped disconfirm the Cartesian view of the discursive mind or ego as a unitary, incorrigible agency independent of emotion and instinct and instead support Freud's evolutionary view of ego as a self-deceiving, surface agency, passively driven by unconscious childhood emotions and animal instincts. As Freud suggested, dissociation of the verbal and preverbal brain is not just a post-surgical finding but

normal in the human waking state, although greater in males than females, and worse under stress than in relaxation.

According to Western science, the human brain is an evolutionary hybrid made up of different layers combined in what some call a heterarchy, that is, a complex of more or less primitive mind-brain systems which take turns driving the overall system depending on the perceived challenge at hand. Under conditions of stress or trauma, higher systems fall back on a default mode of worst-case projection, defensive emotion and stereotyped survival reflexes driven by the stress response. This survival mode inhibits higher mammalian systems of social learning, empathy and cooperation. Given the fact that this evolutionary defaulting process is generally overkill for civilized challenges, Dan Goleman calls it highjacking, citing an example in which a man startled out of sleep takes his own child for an intruder and reflexively shoots him.

In my view, this process is a microcosm of the cultural hijacking that happened when the Far West, an underdog in the game of civilization, threw out the baby of contemplative self-correction with the christening water of Roman Catholic authority. In the modern outlook of Descartes, Hume and Kant are telltale signs of this hijacking: a self-enclosed mindset of outward suspicion and inward self-evidence; a self-protective emotional stance of global competition and mistrust; and a dissociated sense of the body as an insensate machine, all contributing to what some call the egocentric predicament.

The supposed alternative to this modern outlook, post-modern thought is in fact an introversion of the same destructive mindset, in which the discursive self is wholly deconstructed, its self-protective motives are assailed, and the body and its passions are reified as self-validating.

In the midst of this vacillation, a marginalized tradition of therapeutic philosophy represented by the likes of Neitzsche, Freud, Wittgenstein, Ricouer and Nagel have tried to reopen the old centrist path of self-correction, by combining a dereifying critique of binary language with a contemplative discipline of self-disclosure that harks back to the *via negativa* of Neoplatonism..

Current brain research helps link this therapeutic tradition to the neurobiology of self-regulation at work in meditation. Although the mainstream of this research is focused on the role of meditation in stress-reduction, my work explores the epistemologically crucial role of meditation in the enrichment of attention, problem-solving and learning.

I now turn to another little known study that offers a neural model of learning as self-regulation, and helps me sketch an evolutionary paradigm of self-correction. One study of the way the brain processes music by Marin *et al.* used brain imaging to contrast brain processing in musicians and non-musicians. The study found that the main difference in the way the brains of these two groups process music lay in the balance between their right and left brains. In the untrained, music listening activated a brain module in the non-verbal side of the cortex, while inhibiting the verbal side. In trained musicians, listening simultaneously activated the syntax module on the verbal side and the music module on the non-verbal side, supporting a more balanced and integrated mode of cerebral processing.

These findings were interpreted to mean that the increased capacity musicians have to analyze and compose music is enabled by a network linkage between the brain module that supports the virtually boundless analytic and synthetic power of human

language and a module shared with older mammals that supports the much simpler symbolic processing of prosody, birdsong, grunts, cries, etc.

This study offers a model of self-regulation as a network capacity based on use-dependent neural plasticity, by which the higher consciousness and neural processes of the human mind can support the conscious self-regulation of more primitive mind/brain systems and elements, enhancing default properties of learning competence and self-control. Of course, the degree of coherence and integration in human brains varies widely, but it is generally greater in females than males, and greater under conditions of relaxed stimulation than under stress.

The evolutionary background of this capacity and its fluctuations is thought to be the adaptive synergy between increased mammalian cortex, increased social learning and the enhanced standards of safety and abundance caused by cooperation. I believe this synergy supported the rise of an abundance mode based in the biology of reproduction and reciprocally opposed to the survival mode based in the biology of stress.

This abundance mode would enhance neural systems of fertility, nurturance, social cooperation and social learning in order to capitalize on windows for childrearing. An evolutionary paradigm of self-correction based on the Marin study postulates that the capacity to consciously inhibit survival mode and sustain abundance mode became more vital to human adaptation as isolated periods of abundance gave way to stable agricultural surpluses and civilization.

In light of this paradigm, human religious traditions, contemplative & ethical disciplines, may exploit a common human capacity to set optimal default consciousness for stable conditions of material abundance and social cohesion. Supporting this is the

fact that most meditative techniques along with therapeutic techniques like hypnosis and free-association share common neural features including increased coherence of brain processing, greater right-left cortical balance, better hierarchical integration of brain systems and conscious self-regulation of normally automatic mind/brain processes.

The self-corrective outlook fostered by such contemplative and therapeutic techniques represents a genuine alternative to the West's modern and post-modern mindset: an outlook of open-mindedness and curiosity; an emotional style of self-disclosure, empathy and trust; and a consciously regulated integrity of body and mind.

In sum, this Western scientific approach suggests that the mind-brain over time evolved multiple ways of engaging reality, each of which functions in one of two modes: a conservative mode that heightens memory and self-preservation; and a generative mode that heightens learning and self-correction. If objective knowledge and social action are favored by the human capacity for self-correction through learning, then meditation may be viewed as a social epistemological practice that works to optimize self-correction through the self-regulation and internal enrichment of learning.

If this paradigm of meditation as cultivated self-correction holds water, then Nagel is wrong when he says that the methods of self-knowledge we need to help humanity grow more objective do not yet exist. Assuming this brings me to my final response: a look at Buddhist meditative science.

V. MEDITATION IN THE INDO-TIBETAN TRADITION

The basic logic and epistemology of meditative self-correction in this tradition is laid out in the critical realism of the Pramā□a school founded by Dig□āga, known in the west as Buddhist Logic. Although this school's view of meditation was not considered definitive philosophically or technically by later tradition, its dualistic language still serves to define the Buddhist debate on meditation and so helps us locate that debate in comparative terms. Since abler minds have already introduced the views of this school, I will briefly summarize them in a way that permits me to compare its view of meditation with the definitive views of rival schools.

Vis a vis Alan Wallace's concern with materialism, I would call the Buddhist Logical view of the mind materialistic in the weak sense that it rejects foundationalist views of mind as independent of physical energy or external reality. It is dualistic in the weak sense that mind is seen as essentially distinct from matter and external reality, albeit causally interdependent and interactive. It may even be considered idealistic or constructivist in the degree to which mind has the power to influence mental processes like perception and sensation as well as physical processes like neural energy and physiology.

While Buddhist Logic acknowledges the problem of mediated knowledge and tends toward an empiricist privileging of perception as direct, it anticipates Kant in its emphasis on the power of the mind to transcend its own symbolic constructs and attain direct knowledge through self-correction. Important for us is that Buddhist Logicians went further than Kant in the direction of phenomenology with their theory of mental

perception (*manasa-pratyak□a*), the idea that the rational mind is capable of unmediated knowledge when it reflexively grasps a preceding moment of consciousness immediately after fresh sense perception and before its constructive recognition.

This theory offered a basis for an epistemology of meditative self-correction, in which mental perception was seen as a natural competence that could be culturally enhanced and refined through meditative control of attention and concentration, aided by yogic control of posture and breathing.

The outcome, the theory of yogic perception (*yogi-pratyak□a*), is compelling in that it shows how formal logic and meditation were integrated within a multidisciplinary practice of social epistemological self-correction, given institutional support by academic procedures like group coursework and debate, group meditation and confession retreats, and long-term tutoring and mentoring bonds.

Given this background, I can now turn to my specific focus: the critical views of meditative correction developed by the Buddhist Idealist (*Cittamātra*) and Centrist (*Madhyamaka*) schools.

What the Idealist school founded by Asa□ga and Vasubandhu contributed to the debate over meditation is a therapeutic depth-psychology that anticipated those of Freud, Jung and Lacan. Refining the realism of the Buddhist Analyst (*Vaibha□ika*) and Empiricist (*Sautrāntika*) schools, Buddhist Logicians adopted an antifoundational theory of mind as a dynamic wave function (i.e. *samanatarapratyāya*) within an insubstantial stream of consciousness (*cittasa□tana*) constantly interacting with sense information and physical energy.

While anticipating Rodolfo Llinas' quantum theory of consciousness, this theory had trouble explaining the persistence of learned and innate blocks to the mind's transcendent potential (*tathāgatagarbha*) as well as mapping how meditation works to gradually correct them.

The theory of the subconscious mind (*ālayavijñāna*) served Buddhist Idealists much as it did psychoanalysts, by rendering graphically tangible the dissociation of unwanted habits of mind as well as the self-regulative process by which they were exposed and corrected by higher consciousness. Like Freud and Lacan, Buddhist Idealists held a deconstructive depth-psychology in which unconscious self-object constructs imposed on reality are exposed and reformed by contemplation, along with the misguided reifying instincts underlying them.

The problem the Centrist heirs of Nāgārjuna have with this solution is its tacit reification of the subconscious mind as a reality in itself, independent of matter and/or an external world. The Centrist solution that emerged as definitive was a refinement of Nāgārjuna's view that neither object nor subject, matter nor mind has any non-relative, intrinsic reality or nature (*svabhāva/svalak□a□a*), while they all definitely exist in interdependence as sheer relativities (*idampratyayamātra*) and mere social conventions (*lokavyāvahāramātra*).

The refinement was Candrakīrti's Dialecticist view that all forms of bondage and freedom, delusion and learning exist only as unexamined appearances without essence or objectivity, like illusions or fictions of language. This view anticipates Wittgenstein's insight that human cultural forms of life are made up of language games without

foundation or essence, as well as Daniel Dennet's multiple drafts theory of mind/brain processing.

In the tradition of CandrakIrti and his Tibetan interpreters, the terms of analysis shift from formal logic or deconstrucive phenomenology to de-reifying language therapy; while the contemplative methods shift from non-discursive mindfulness and concentration to dialogical contemplation and social emotional self-correction. These shifts are possible because of Candrakīrti's critique of the essentialist commitments of formal logical and phenomenological methods, and his refinement of Centrist method as a purely critical analysis of one's own and others' reifying habits of thought and perception.

His methodology rejects any positive notion of self-evident objectivity (*svarūpatā*) or self-validating subjectivity (*svasa□vedana*) and instead asserts a contemplative impartiality (*apak□atā*) or magnanimity (*mahātmatā*) based on the self-correction of blocks to communicative and collaborative openness. As a result, he can do away with the conceptual apparatus of objectivism and constructivism, including the reified grammar of predication that gives rise to the conundrum of meditated knowledge.

This economy allows a distinctive epistemology in which all dualistic knowledge, conceptual or perceptual, is seem as constructed by social consensus (*lokaprasiddha*) and linguistic usage (*upādayaprajñapti*).This leads on the one hand to a commonsense realistic theory of mental perception in which explicitly discursive mental perception can yield knowledge as direct (*sak□at*) as tacitly discursive sense perception. And on the other hand, it leads to a theory of yogic perception in which a therapeutic mode of discursive analysis yields a de-reifying intuition (*analambanajñāna*) that is rational

(*yuktya*) in that it conforms to conventions of language; is non-dualistic (*advāya*) in that it rules out any self-evident unity or diversity in reality; and is ultimate (*paramārthika*) in that it opens the mind and heart to reality in its infinite relativity.

Candrakīrti's contemplative method is reminiscent of the *via negativa* of Neoplatonic tradition, except that the Indian zero (*śūnya*) and its linguistic and philosophical analogues (i.e. *śūnyatā*) permit a more parsimonious and radical de-reification of unity as well as diversity. This rigorous non-dualism clears the way for a centrist contemplative system that can integrate both physical and psychosocial sciences within a philosophical objectivity seen as the only sure corrective for the human intellect's self-limiting mindset of reification (*sa□aropa-grahabandha*).

In this sense, Candrakīrti's system is less like the monotheistic version of Neo-platonism Descartes knew than the Socratic and Presocratic Greek version one finds in the Abbasid Renaissance readings of Plotinus, Plato and Empedoles that sparked our Renaissance and Enlightenment. In fact, I believe his Dialecticist contemplative method supports a fresh reading of key Socratic concepts like interrogation (*elenchus*) and inspiration (*daimonia*), and may help expose the contemplative roots of Western reason and heal the modern schism that has cut the far west off from the Eurasian genius of our Greek, Roman and Arab mentors.

VI. CONCLUSION

As I said at the outset, given our limited time together, we have all had to decide whether to dissect a narrow topic or to sketch a broad overview. I hope that by

juxtaposing some broad reflections on comparative history and philosophy, Western brain science and Buddhist mind science, I have left you with a gestalt of my view that meditation is a cultural extension of the human mind's natural mode of engaging reality.

To sum up these remarks, I would like to review a five key observations and draw some connections to questions of current and future relevance.

1) In contrast to our received history, contemplation was seen in the West as a valid means of knowing reality in a scientific, philosophical as well as spiritual sense from the time of the Greeks until the post-Enlightenment era.
2) In contrast to our modern and post-modern philosophy, contemplation was not mainly used in the West or East a means of cultural indoctrination but rather as an intersubjective method of checking human cultural constructs against reality and hence arriving at more objective knowledge and effective control of nature.
3) In contrast to our modern equation of waking, discursive consciousness with enlightenment and altered, intuitive states of consciousness with delusion, brain research shows that contemplative states enhance attention, problem solving and learning relative to the waking state.
4) In contrast to our modern myth of the mystic East and rational West, Buddhist contemplative science sees meditation in eminently rational terms: i.e. as a reproducible method of regulating the mind and nervous system in ways that help correct learned and innate blocks to objective knowledge and mastery of reality.
5) In this sense, the Buddhist tradition may be seen as mapping a road-not-taken by the West; one that rationalized and systematized ancient contemplative methods

into scientific disciplines made to support a non-violent, mercantile pathway for science and civilization.

In support of these conclusions is the fact that Buddhist contemplative science anticipated modern views of matter as infinitely divisible; of worlds as produced and destroyed by impersonal causes; of human life as evolving naturally from animal life; of mind and brain as selfless, interdependent and interactive; and of all symbolic knowledge, perception and action as socially constructed and relative, without using its science or technology to support either repressive indoctrination or violent conquest.

In light of these findings, I believe that Western centrists from Nietzsche and Freud to Wittgenstein and Nagel may be seen as belonging a pan-Eurasian tradition of using linguistic and contemplative methods for objective self-correction.

If this is so, the objective methods of self-correction they sought in fact already do exist in several contemplative traditions. Many now believe that these methods have been most scientifically developed, rationalized and systematized in the Indo-Tibetan Buddhist tradition. Because of its complete importation of Buddhism, its rigorous translation of texts and methods, and its modern isolation, Tibetan civilization is a virtual time capsule of Eurasia's classical wisdom traditions, healing arts and mind sciences. Enriched by literally thousands of classical texts, continuous living traditions of commentary and expertise, and contemplative vehicles for cognitive, emotional and behavioral self-correction (*triyana*), the Indo-Tibetan tradition is poised to spark a second, global renaissance of contemplative philosophy, science and technology.

Of course, such a renaissance could make all the difference as groups like this one around the world try to conceive a truly universal and sustainable culture for human civilization.

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